

## [1] Total Polychlorinated biphenyls (Total PCBs)/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : \*3.3

Quantification limit : \*12

	Aggregated value
Geometric mean	120
Median	90
Maximum	3,400
Minimum	tr(6.6)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	37
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(10)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	560
Akita Pref.	4	Lake Hachiro	45
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	22
Fukushima Pref.	6	Onahama Port	490
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	80
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	88
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	150
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	330
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	220
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	1,600
	13	Mouth of Riv. Sumida (Minato Ward)	2,600
Yokohama City	14	Yokohama Port	360
Kawasaki City	15	Keihin Canal, Port of Kawasaki	880
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	91
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	57
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1,200
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	3,400
Nagano Pref.	20	Lake Suwa (center)	52
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	22
Aichi Pref.	22	Nagoya Port	490
Mie Pref.	23	Yokkaichi Port	130
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	68
Kyoto Pref.	25	Miyazu Port	16
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1,800
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	480
Osaka City	28	Osaka Port	1,800
Hyogo Pref.	29	Offshore of Himeji	35
Kobe City	30	Kobe Port (center)	510
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	150
Okayama Pref.	32	Offshore of Mizushima	52
Hiroshima Pref.	33	Kure Port	150
	34	Hiroshima Bay	43
Yamaguchi Pref.	35	Tokuyama Bay	28
	36	Offshore of Ube	28
	37	Offshore of Hagi	30
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	46
Kagawa Pref.	39	Takamatsu Port	480
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	12
Kitakyushu City	41	Dokai Bay	790
Saga Pref.	42	Imari Bay	15
Nagasaki Pref.	43	Omura Bay	tr(7.8)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	140
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(6.6)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	12
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	21
Okinawa Pref.	48	Naha Port	360

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [1-1] Monochlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 47/48 (Missing value : 0)

Detection Frequency (sample) : 47/48 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	0.9
Median	0.6
Maximum	62
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	0.6
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.1)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	1.7
Akita Pref.	4	Lake Hachiro	0.4
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(0.2)
Fukushima Pref.	6	Onahama Port	2.2
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	1.8
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	0.5
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	1.2
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	5.5
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	2.7
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	1.9
	13	Mouth of Riv. Sumida (Minato Ward)	1.9
Yokohama City	14	Yokohama Port	0.7
Kawasaki City	15	Keihin Canal, Port of Kawasaki	4.6
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	0.3
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	14
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	0.6
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	62
Nagano Pref.	20	Lake Suwa (center)	tr(0.2)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	0.3
Aichi Pref.	22	Nagoya Port	2.9
Mie Pref.	23	Yokkaichi Port	0.4
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	0.7
Kyoto Pref.	25	Miyazu Port	0.5
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	3.9
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	1.4
Osaka City	28	Osaka Port	1.4
Hyogo Pref.	29	Offshore of Himeji	1.3
Kobe City	30	Kobe Port (center)	0.6
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	0.3
Okayama Pref.	32	Offshore of Mizushima	0.7
Hiroshima Pref.	33	Kure Port	0.6
	34	Hiroshima Bay	0.5
Yamaguchi Pref.	35	Tokuyama Bay	5.6
	36	Offshore of Ube	1.6
	37	Offshore of Hagi	0.6
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	0.3
Kagawa Pref.	39	Takamatsu Port	0.7
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(0.2)
Kitakyushu City	41	Dokai Bay	1.9
Saga Pref.	42	Imari Bay	0.3
Nagasaki Pref.	43	Omura Bay	0.5
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	1.4
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	0.3
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	0.5
Okinawa Pref.	48	Naha Port	0.6

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-2] Dichlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 2

	Aggregated value
Geometric mean	18
Median	12
Maximum	730
Minimum	3

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	11
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	4
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	250
Akita Pref.	4	Lake Hachiro	5
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	3
Fukushima Pref.	6	Onahama Port	53
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	22
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	12
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	15
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	45
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	43
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	75
	13	Mouth of Riv. Sumida (Minato Ward)	70
Yokohama City	14	Yokohama Port	13
Kawasaki City	15	Keihin Canal, Port of Kawasaki	28
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	8
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	10
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	120
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	730
Nagano Pref.	20	Lake Suwa (center)	7
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	6
Aichi Pref.	22	Nagoya Port	49
Mie Pref.	23	Yokkaichi Port	16
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	7
Kyoto Pref.	25	Miyazu Port	8
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	160
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	91
Osaka City	28	Osaka Port	120
Hyogo Pref.	29	Offshore of Himeji	9
Kobe City	30	Kobe Port (center)	40
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	63
Okayama Pref.	32	Offshore of Mizushima	9
Hiroshima Pref.	33	Kure Port	7
	34	Hiroshima Bay	7
Yamaguchi Pref.	35	Tokuyama Bay	12
	36	Offshore of Ube	12
	37	Offshore of Hagi	12
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	6
Kagawa Pref.	39	Takamatsu Port	18
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	5
Kitakyushu City	41	Dokai Bay	21
Saga Pref.	42	Imari Bay	6
Nagasaki Pref.	43	Omura Bay	3
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	27
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	3
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	6
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	9
Okinawa Pref.	48	Naha Port	17

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [1-3] Trichlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 37/48 (Missing value : 0)

Detection Frequency (sample) : 37/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	15
Median	12
Maximum	1,100
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(2)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	120
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	150
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	12
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	17
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	20
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	38
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	75
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	690
	13	Mouth of Riv. Sumida (Minato Ward)	990
Yokohama City	14	Yokohama Port	71
Kawasaki City	15	Keihin Canal, Port of Kawasaki	170
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	6
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(2)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	330
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1,100
Nagano Pref.	20	Lake Suwa (center)	5
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	180
Mie Pref.	23	Yokkaichi Port	32
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	5
Kyoto Pref.	25	Miyazu Port	tr(2)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	510
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	72
Osaka City	28	Osaka Port	490
Hyogo Pref.	29	Offshore of Himeji	tr(2)
Kobe City	30	Kobe Port (center)	120
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	15
Okayama Pref.	32	Offshore of Mizushima	7
Hiroshima Pref.	33	Kure Port	7
	34	Hiroshima Bay	tr(2)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	tr(4)
	37	Offshore of Hagi	12
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	7
Kagawa Pref.	39	Takamatsu Port	160
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	130
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	28
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	41

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-4] Tetrachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	33
Median	26
Maximum	1,400
Minimum	2.2

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	9.5
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	2.8
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	120
Akita Pref.	4	Lake Hachiro	8.1
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	6.9
Fukushima Pref.	6	Onahama Port	93
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	24
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	35
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	41
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	42
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	67
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	610
	13	Mouth of Riv. Sumida (Minato Ward)	1,100
Yokohama City	14	Yokohama Port	150
Kawasaki City	15	Keihin Canal, Port of Kawasaki	370
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	24
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	10
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	500
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1,400
Nagano Pref.	20	Lake Suwa (center)	16
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	9.1
Aichi Pref.	22	Nagoya Port	170
Mie Pref.	23	Yokkaichi Port	47
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	19
Kyoto Pref.	25	Miyazu Port	3.4
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	460
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	120
Osaka City	28	Osaka Port	640
Hyogo Pref.	29	Offshore of Himeji	13
Kobe City	30	Kobe Port (center)	130
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	27
Okayama Pref.	32	Offshore of Mizushima	14
Hiroshima Pref.	33	Kure Port	32
	34	Hiroshima Bay	14
Yamaguchi Pref.	35	Tokuyama Bay	6.0
	36	Offshore of Ube	6.4
	37	Offshore of Hagi	5.2
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	18
Kagawa Pref.	39	Takamatsu Port	180
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	2.9
Kitakyushu City	41	Dokai Bay	360
Saga Pref.	42	Imari Bay	3.6
Nagasaki Pref.	43	Omura Bay	3.6
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	38
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	2.2
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	2.8
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	5.4
Okinawa Pref.	48	Naha Port	64

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[1-4-1] 3,3',4,4'-Tetrachlorobiphenyl (#77) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 29/48 (Missing value : 0)

Detection Frequency (sample) : 29/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	tr(0.4)
Median	tr(0.3)
Maximum	7.0
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	1.7
Akita Pref.	4	Lake Hachiro	tr(0.2)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	2.2
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(0.3)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.4)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	0.7
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	1.9
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(0.5)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	4.7
	13	Mouth of Riv. Sumida (Minato Ward)	6.8
Yokohama City	14	Yokohama Port	0.6
Kawasaki City	15	Keihin Canal, Port of Kawasaki	2.2
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(0.4)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	3.2
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	tr(0.2)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	0.7
Mie Pref.	23	Yokkaichi Port	tr(0.2)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(0.5)
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	5.3
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	1.2
Osaka City	28	Osaka Port	7.0
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	0.8
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(0.5)
Okayama Pref.	32	Offshore of Mizushima	tr(0.2)
Hiroshima Pref.	33	Kure Port	tr(0.3)
Yamaguchi Pref.	34	Hiroshima Bay	nd
	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	2.2
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	2.7
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	0.6
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(0.3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-4-2] 3,4,4',5-Tetrachlorobiphenyl (#81) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 12/48 (Missing value : 0)

Detection Frequency (sample) : 12/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	1.4
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(0.4)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.4)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	0.6
	13	Mouth of Riv. Sumida (Minato Ward)	1.0
Yokohama City	14	Yokohama Port	tr(0.2)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(0.5)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(0.5)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.4
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(0.4)
Osaka City	28	Osaka Port	0.9
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(0.3)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(0.5)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-5] Pentachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 46/48 (Missing value : 0)

Detection Frequency (sample) : 46/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	19
Median	24
Maximum	420
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	9.4
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	2.9
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	51
Akita Pref.	4	Lake Hachiro	19
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	9.1
Fukushima Pref.	6	Onahama Port	110
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	14
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	17
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	43
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	110
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	27
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	200
	13	Mouth of Riv. Sumida (Minato Ward)	340
Yokohama City	14	Yokohama Port	72
Kawasaki City	15	Keihin Canal, Port of Kawasaki	190
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	30
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	7.0
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	170
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	120
Nagano Pref.	20	Lake Suwa (center)	17
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	6.1
Aichi Pref.	22	Nagoya Port	68
Mie Pref.	23	Yokkaichi Port	24
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	24
Kyoto Pref.	25	Miyazu Port	1.1
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	420
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	110
Osaka City	28	Osaka Port	360
Hyogo Pref.	29	Offshore of Himeji	5.5
Kobe City	30	Kobe Port (center)	81
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	28
Okayama Pref.	32	Offshore of Mizushima	8.6
Hiroshima Pref.	33	Kure Port	41
	34	Hiroshima Bay	8.7
Yamaguchi Pref.	35	Tokuyama Bay	2.5
	36	Offshore of Ube	2.1
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	9.2
Kagawa Pref.	39	Takamatsu Port	69
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	3.0
Kitakyushu City	41	Dokai Bay	180
Saga Pref.	42	Imari Bay	1.7
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	32
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	1.4
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	3.0
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	3.2
Okinawa Pref.	48	Naha Port	60

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected



[1-5-1] 2,3,3',4,4'-Pentachlorobiphenyl (#105) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 38/48 (Missing value : 0)

Detection Frequency (sample) : 38/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	1.1
Median	1.0
Maximum	18
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.5)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	1.6
Akita Pref.	4	Lake Hachiro	1.1
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(0.6)
Fukushima Pref.	6	Onahama Port	9.9
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	0.8
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	1.2
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	2.8
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	9.9
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	1.3
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	5.7
	13	Mouth of Riv. Sumida (Minato Ward)	10
Yokohama City	14	Yokohama Port	2.7
Kawasaki City	15	Keihin Canal, Port of Kawasaki	8.2
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	2.0
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(0.4)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	7.1
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.6)
Nagano Pref.	20	Lake Suwa (center)	0.8
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.5)
Aichi Pref.	22	Nagoya Port	3.4
Mie Pref.	23	Yokkaichi Port	0.9
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	1.3
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	18
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	6.9
Osaka City	28	Osaka Port	12
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	2.1
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1.6
Okayama Pref.	32	Offshore of Mizushima	tr(0.4)
Hiroshima Pref.	33	Kure Port	1.0
	34	Hiroshima Bay	tr(0.4)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(0.5)
Kagawa Pref.	39	Takamatsu Port	5.1
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(0.3)
Kitakyushu City	41	Dokai Bay	9.6
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	2.1
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(0.4)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	1.9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-2] 2,3,4,4',5-Pentachlorobiphenyl (#114) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 9/48 (Missing value : 0)

Detection Frequency (sample) : 9/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	1.2
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(0.6)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.5)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(0.3)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(0.6)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(0.4)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(0.5)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.2
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(0.3)
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(0.4)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-3] 2,3',4,4',5-Pentachlorobiphenyl (#118) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 45/48 (Missing value : 0)

Detection Frequency (sample) : 45/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	3.0
Median	3.2
Maximum	65
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.4
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.6)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	5.0
Akita Pref.	4	Lake Hachiro	3.2
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	1.6
Fukushima Pref.	6	Onahama Port	22
Ibaraki Pref.	7	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	2.2
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.6
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	7.9
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	26
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	3.9
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	29
	13	Mouth of Riv. Sumida (Minato Ward)	47
Yokohama City	14	Yokohama Port	9.5
Kawasaki City	15	Keihin Canal, Port of Kawasaki	30
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	5.0
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1.0
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	19
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1.2
Nagano Pref.	20	Lake Suwa (center)	1.9
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	1.1
Aichi Pref.	22	Nagoya Port	8.2
Mie Pref.	23	Yokkaichi Port	3.1
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	3.8
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	65
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	13
Osaka City	28	Osaka Port	40
Hyogo Pref.	29	Offshore of Himeji	0.9
Kobe City	30	Kobe Port (center)	8.3
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	4.3
Okayama Pref.	32	Offshore of Mizushima	1.4
Hiroshima Pref.	33	Kure Port	3.5
	34	Hiroshima Bay	1.2
Yamaguchi Pref.	35	Tokuyama Bay	tr(0.5)
	36	Offshore of Ube	tr(0.4)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	1.3
Kagawa Pref.	39	Takamatsu Port	12
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	0.7
Kitakyushu City	41	Dokai Bay	23
Saga Pref.	42	Imari Bay	tr(0.5)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	5.7
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(0.4)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	1.1
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	0.9
Okinawa Pref.	48	Naha Port	6.1

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-4] 2',3,4,4',5-Pentachlorobiphenyl (#123) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 11/48 (Missing value : 0)

Detection Frequency (sample) : 11/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	1.4
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	0.9
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(0.3)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.4)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(0.5)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(0.6)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(0.4)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(0.4)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.4
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(0.4)
Osaka City	28	Osaka Port	0.8
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(0.6)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-5] 3,3',4,4',5-Pentachlorobiphenyl (#126) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 4/48 (Missing value : 0)

Detection Frequency (sample) : 4/48 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(0.5)
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.5)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(0.3)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(0.3)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	tr(0.4)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-6] Hexachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 40/48 (Missing value : 0)

Detection Frequency (sample) : 40/48 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.4

	Aggregated value
Geometric mean	7.7
Median	8.3
Maximum	200
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	3.3
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	13
Akita Pref.	4	Lake Hachiro	9.4
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	2.7
Fukushima Pref.	6	Onahama Port	69
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	4.6
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	4.8
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	23
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	77
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	7.0
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	51
	13	Mouth of Riv. Sumida (Minato Ward)	67
Yokohama City	14	Yokohama Port	39
Kawasaki City	15	Keihin Canal, Port of Kawasaki	92
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	16
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	5.8
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	35
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(1.0)
Nagano Pref.	20	Lake Suwa (center)	5.7
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	17
Mie Pref.	23	Yokkaichi Port	8.9
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	10
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	200
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	64
Osaka City	28	Osaka Port	140
Hyogo Pref.	29	Offshore of Himeji	3.0
Kobe City	30	Kobe Port (center)	93
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	10
Okayama Pref.	32	Offshore of Mizushima	6.6
Hiroshima Pref.	33	Kure Port	42
	34	Hiroshima Bay	7.7
Yamaguchi Pref.	35	Tokuyama Bay	tr(1.4)
	36	Offshore of Ube	tr(1.1)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	4.6
Kagawa Pref.	39	Takamatsu Port	37
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	62
Saga Pref.	42	Imari Bay	tr(1.3)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	12
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(1.2)
Okinawa Pref.	48	Naha Port	97

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-1] 2,3,3',4,4',5-Hexachlorobiphenyl (#156) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 11/48 (Missing value : 0)

Detection Frequency (sample) : 11/48 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	4.9
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	3.1
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(2.2)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(1.1)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(1.3)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(1.7)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(1.1)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4.9
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	tr(1.9)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(1.2)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(1.3)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(1.4)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-2] 2,3,3',4,4',5'-Hexachlorobiphenyl (#157) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 1/48 (Missing value : 0)

Detection Frequency (sample) : 1/48 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(1.2)
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(1.2)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[1-6-3] 2,3',4,4',5,5'-Hexachlorobiphenyl (#167) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 3/48 (Missing value : 0)

Detection Frequency (sample) : 3/48 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(2.1)
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(1.0)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(2.1)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	tr(1.3)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-4] 3,3',4,4',5,5'-Hexachlorobiphenyl (#169) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 0/48 (Missing value : 0)

Detection Frequency (sample) : 0/48 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	nd
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [1-7] Heptachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 46/48 (Missing value : 0)

Detection Frequency (sample) : 46/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	2.7
Median	2.5
Maximum	67
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.2
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	4.7
Akita Pref.	4	Lake Hachiro	2.4
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(0.3)
Fukushima Pref.	6	Onahama Port	11
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	1.2
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	1.5
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	5.4
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	14
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	1.8
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	11
	13	Mouth of Riv. Sumida (Minato Ward)	13
Yokohama City	14	Yokohama Port	13
Kawasaki City	15	Keihin Canal, Port of Kawasaki	22
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	5.1
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	6.9
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	7.4
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.3)
Nagano Pref.	20	Lake Suwa (center)	0.9
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.2)
Aichi Pref.	22	Nagoya Port	4.1
Mie Pref.	23	Yokkaichi Port	2.2
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	2.1
Kyoto Pref.	25	Miyazu Port	tr(0.5)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	31
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	19
Osaka City	28	Osaka Port	35
Hyogo Pref.	29	Offshore of Himeji	0.9
Kobe City	30	Kobe Port (center)	36
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	3.3
Okayama Pref.	32	Offshore of Mizushima	5.0
Hiroshima Pref.	33	Kure Port	20
	34	Hiroshima Bay	2.6
Yamaguchi Pref.	35	Tokuyama Bay	0.8
	36	Offshore of Ube	0.6
	37	Offshore of Hagi	tr(0.2)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	1.1
Kagawa Pref.	39	Takamatsu Port	9.3
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(0.4)
Kitakyushu City	41	Dokai Bay	27
Saga Pref.	42	Imari Bay	1.9
Nagasaki Pref.	43	Omura Bay	0.6
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	3.6
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(0.2)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	1.4
Okinawa Pref.	48	Naha Port	67

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-7-1] 2,2',3,3',4,4',5-Heptachlorobiphenyl (#170) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 34/48 (Missing value : 0)

Detection Frequency (sample) : 34/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	tr(0.5)
Median	tr(0.4)
Maximum	7.6
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.2)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	tr(0.5)
Akita Pref.	4	Lake Hachiro	tr(0.5)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	2.1
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(0.3)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.3)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	0.9
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	1.9
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(0.3)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	1.3
	13	Mouth of Riv. Sumida (Minato Ward)	1.4
Yokohama City	14	Yokohama Port	1.3
Kawasaki City	15	Keihin Canal, Port of Kawasaki	2.6
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	0.8
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	0.9
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1.1
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	0.6
Mie Pref.	23	Yokkaichi Port	tr(0.4)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(0.4)
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4.9
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	2.6
Osaka City	28	Osaka Port	4.3
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	3.3
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(0.5)
Okayama Pref.	32	Offshore of Mizushima	tr(0.5)
Hiroshima Pref.	33	Kure Port	1.9
	34	Hiroshima Bay	tr(0.2)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	tr(0.2)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	1.5
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	2.6
Saga Pref.	42	Imari Bay	tr(0.3)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	0.7
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(0.3)
Okinawa Pref.	48	Naha Port	7.6

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-7-2] 2,2',3,4,4',5,5'-Heptachlorobiphenyl (#180) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 45/48 (Missing value : 0)

Detection Frequency (sample) : 45/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	1.1
Median	0.8
Maximum	21
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.5)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	1.4
Akita Pref.	4	Lake Hachiro	0.9
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(0.3)
Fukushima Pref.	6	Onahama Port	3.3
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	0.6
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	0.7
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	1.8
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	3.4
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	0.8
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	3.4
	13	Mouth of Riv. Sumida (Minato Ward)	3.6
Yokohama City	14	Yokohama Port	3.7
Kawasaki City	15	Keihin Canal, Port of Kawasaki	7.2
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	1.4
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	2.7
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	2.2
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.3)
Nagano Pref.	20	Lake Suwa (center)	0.6
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.2)
Aichi Pref.	22	Nagoya Port	1.0
Mie Pref.	23	Yokkaichi Port	0.8
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	0.7
Kyoto Pref.	25	Miyazu Port	tr(0.3)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	8.5
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	5.6
Osaka City	28	Osaka Port	10
Hyogo Pref.	29	Offshore of Himeji	tr(0.3)
Kobe City	30	Kobe Port (center)	11
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1.2
Okayama Pref.	32	Offshore of Mizushima	1.2
Hiroshima Pref.	33	Kure Port	5.7
	34	Hiroshima Bay	0.8
Yamaguchi Pref.	35	Tokuyama Bay	tr(0.4)
	36	Offshore of Ube	nd
	37	Offshore of Hagi	tr(0.2)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	0.6
Kagawa Pref.	39	Takamatsu Port	2.9
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(0.2)
Kitakyushu City	41	Dokai Bay	6.8
Saga Pref.	42	Imari Bay	0.8
Nagasaki Pref.	43	Omura Bay	tr(0.2)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	1.3
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(0.2)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	0.6
Okinawa Pref.	48	Naha Port	21

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-7-3] 2,3,3',4,4',5,5'-Heptachlorobiphenyl (#189) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 3/48 (Missing value : 0)

Detection Frequency (sample) : 3/48 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(0.3)
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(0.3)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	tr(0.2)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(0.3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-8] Octachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 35/48 (Missing value : 0)

Detection Frequency (sample) : 35/48 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.2

	Aggregated value
Geometric mean	0.3
Median	0.2
Maximum	14
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	0.6
Akita Pref.	4	Lake Hachiro	0.5
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	0.8
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.1)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	1.0
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	1.2
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	0.2
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	1.4
	13	Mouth of Riv. Sumida (Minato Ward)	1.7
Yokohama City	14	Yokohama Port	1.7
Kawasaki City	15	Keihin Canal, Port of Kawasaki	3.3
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	0.9
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1.5
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1.1
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	0.6
Mie Pref.	23	Yokkaichi Port	0.2
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	0.2
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	3.3
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	3.6
Osaka City	28	Osaka Port	5.4
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	4.6
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	0.3
Okayama Pref.	32	Offshore of Mizushima	0.7
Hiroshima Pref.	33	Kure Port	3.2
	34	Hiroshima Bay	tr(0.1)
Yamaguchi Pref.	35	Tokuyama Bay	0.2
	36	Offshore of Ube	tr(0.1)
	37	Offshore of Hagi	tr(0.1)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	2.0
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	4.2
Saga Pref.	42	Imari Bay	tr(0.1)
Nagasaki Pref.	43	Omura Bay	tr(0.1)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	0.6
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(0.1)
Okinawa Pref.	48	Naha Port	14

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-9] Nonachlorobiphenyls/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 24/48 (Missing value : 0)

Detection Frequency (sample) : 24/48 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.4

	Aggregated value
Geometric mean	tr(0.1)
Median	nd
Maximum	1.9
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.1)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.1)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	tr(0.2)
Akita Pref.	4	Lake Hachiro	tr(0.1)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(0.2)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(0.2)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	1.6
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.2)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(0.2)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(0.3)
Yokohama City	14	Yokohama Port	tr(0.1)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(0.3)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(0.3)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(0.1)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	tr(0.1)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(0.1)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	0.6
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	1.0
Osaka City	28	Osaka Port	0.8
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	tr(0.3)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	tr(0.2)
Hiroshima Pref.	33	Kure Port	tr(0.2)
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(0.2)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	1.9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [1-10] Decachlorobiphenyl/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 34/48 (Missing value : 0)

Detection Frequency (sample) : 34/48 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	tr(0.2)
Median	tr(0.1)
Maximum	4.6
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.2)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.1)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	0.3
Akita Pref.	4	Lake Hachiro	0.5
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	0.5
Ibaraki Pref.	7	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(0.2)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.1)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	1.3
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	0.3
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	0.4
	13	Mouth of Riv. Sumida (Minato Ward)	0.3
Yokohama City	14	Yokohama Port	0.9
Kawasaki City	15	Keihin Canal, Port of Kawasaki	0.4
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	0.5
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(0.1)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1.1
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.1)
Nagano Pref.	20	Lake Suwa (center)	tr(0.1)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(0.2)
Mie Pref.	23	Yokkaichi Port	tr(0.1)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(0.1)
Kyoto Pref.	25	Miyazu Port	tr(0.1)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	0.4
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	0.4
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(0.1)
Okayama Pref.	32	Offshore of Mizushima	tr(0.1)
Hiroshima Pref.	33	Kure Port	tr(0.1)
	34	Hiroshima Bay	tr(0.1)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(0.1)
Kagawa Pref.	39	Takamatsu Port	0.4
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	4.6
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	0.3
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(0.1)
Okinawa Pref.	48	Naha Port	1.0

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [2] HCB (Hexachlorobenzene) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 46/48 (Missing value : 0)

Detection Frequency (sample) : 46/48 (Missing value : 0)

Detection limit : 3

Quantification limit : 8

	Aggregated value
Geometric mean	10
Median	10
Maximum	630
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	26
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	13
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	tr(6)
Akita Pref.	4	Lake Hachiro	11
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	18
Fukushima Pref.	6	Onahama Port	56
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	85
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	12
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	630
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	59
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	15
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	42
	13	Mouth of Riv. Sumida (Minato Ward)	9
Yokohama City	14	Yokohama Port	14
Kawasaki City	15	Keihin Canal, Port of Kawasaki	28
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	45
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	15
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	13
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	15
Nagano Pref.	20	Lake Suwa (center)	32
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(7)
Aichi Pref.	22	Nagoya Port	tr(4)
Mie Pref.	23	Yokkaichi Port	tr(5)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	10
Kyoto Pref.	25	Miyazu Port	tr(4)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	22
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	27
Osaka City	28	Osaka Port	13
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	tr(4)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	18
Okayama Pref.	32	Offshore of Mizushima	tr(4)
Hiroshima Pref.	33	Kure Port	tr(3)
	34	Hiroshima Bay	tr(3)
Yamaguchi Pref.	35	Tokuyama Bay	tr(4)
	36	Offshore of Ube	tr(4)
	37	Offshore of Hagi	tr(3)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(6)
Kagawa Pref.	39	Takamatsu Port	tr(5)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(4)
Kitakyushu City	41	Dokai Bay	40
Saga Pref.	42	Imari Bay	tr(4)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(6)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(4)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(6)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(7)
Okinawa Pref.	48	Naha Port	tr(4)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [11] HCHs/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : \*5

Quantification limit : \*12

	Aggregated value
Geometric mean	170
Median	160
Maximum	1,300
Minimum	32

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	650
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	77
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	1,300
Akita Pref.	4	Lake Hachiro	530
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	210
Fukushima Pref.	6	Onahama Port	150
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	360
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	180
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	700
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	320
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	440
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	200
	13	Mouth of Riv. Sumida (Minato Ward)	240
Yokohama City	14	Yokohama Port	160
Kawasaki City	15	Keihin Canal, Port of Kawasaki	160
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	390
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	38
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	610
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	42
Nagano Pref.	20	Lake Suwa (center)	180
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	100
Aichi Pref.	22	Nagoya Port	150
Mie Pref.	23	Yokkaichi Port	83
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	380
Kyoto Pref.	25	Miyazu Port	72
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	380
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	1,200
Osaka City	28	Osaka Port	540
Hyogo Pref.	29	Offshore of Himeji	110
Kobe City	30	Kobe Port (center)	210
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	170
Okayama Pref.	32	Offshore of Mizushima	93
Hiroshima Pref.	33	Kure Port	69
	34	Hiroshima Bay	73
Yamaguchi Pref.	35	Tokuyama Bay	100
	36	Offshore of Ube	93
	37	Offshore of Hagi	53
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	130
Kagawa Pref.	39	Takamatsu Port	130
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	37
Kitakyushu City	41	Dokai Bay	740
Saga Pref.	42	Imari Bay	76
Nagasaki Pref.	43	Omura Bay	67
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	180
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	66
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	86
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	380
Okinawa Pref.	48	Naha Port	32

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) \* : Indicates the sum value of the Quantification [Detection] limits of each isomers.

[11-1]  $\alpha$ -HCH/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	35
Median	37
Maximum	640
Minimum	tr(2)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	98
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	11
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	640
Akita Pref.	4	Lake Hachiro	83
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	75
Fukushima Pref.	6	Onahama Port	44
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	99
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	25
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	280
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	87
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	200
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	60
	13	Mouth of Riv. Sumida (Minato Ward)	57
Yokohama City	14	Yokohama Port	43
Kawasaki City	15	Keihin Canal, Port of Kawasaki	48
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	160
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	10
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	36
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	13
Nagano Pref.	20	Lake Suwa (center)	53
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	44
Aichi Pref.	22	Nagoya Port	43
Mie Pref.	23	Yokkaichi Port	19
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	88
Kyoto Pref.	25	Miyazu Port	14
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	61
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	330
Osaka City	28	Osaka Port	78
Hyogo Pref.	29	Offshore of Himeji	16
Kobe City	30	Kobe Port (center)	33
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	52
Okayama Pref.	32	Offshore of Mizushima	14
Hiroshima Pref.	33	Kure Port	13
	34	Hiroshima Bay	13
Yamaguchi Pref.	35	Tokuyama Bay	14
	36	Offshore of Ube	18
	37	Offshore of Hagi	6
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	22
Kagawa Pref.	39	Takamatsu Port	24
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	8
Kitakyushu City	41	Dokai Bay	220
Saga Pref.	42	Imari Bay	12
Nagasaki Pref.	43	Omura Bay	13
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	38
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	10
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	15
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	16
Okinawa Pref.	48	Naha Port	tr(2)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[11-2]  $\beta$ -HCH/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	100
Median	92
Maximum	570
Minimum	17

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	480
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	22
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	380
Akita Pref.	4	Lake Hachiro	400
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	100
Fukushima Pref.	6	Onahama Port	93
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	160
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	99
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	230
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	180
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	160
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	100
	13	Mouth of Riv. Sumida (Minato Ward)	150
Yokohama City	14	Yokohama Port	92
Kawasaki City	15	Keihin Canal, Port of Kawasaki	87
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	180
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	22
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	86
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	17
Nagano Pref.	20	Lake Suwa (center)	100
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	44
Aichi Pref.	22	Nagoya Port	91
Mie Pref.	23	Yokkaichi Port	52
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	260
Kyoto Pref.	25	Miyazu Port	52
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	260
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	570
Osaka City	28	Osaka Port	410
Hyogo Pref.	29	Offshore of Himeji	88
Kobe City	30	Kobe Port (center)	160
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	100
Okayama Pref.	32	Offshore of Mizushima	73
Hiroshima Pref.	33	Kure Port	49
	34	Hiroshima Bay	53
Yamaguchi Pref.	35	Tokuyama Bay	84
	36	Offshore of Ube	68
	37	Offshore of Hagi	43
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	97
Kagawa Pref.	39	Takamatsu Port	90
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	25
Kitakyushu City	41	Dokai Bay	410
Saga Pref.	42	Imari Bay	59
Nagasaki Pref.	43	Omura Bay	49
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	120
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	48
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	60
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	350
Okinawa Pref.	48	Naha Port	30

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[11-3]  $\gamma$ -HCH (synonym:Lindane) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 47/48 (Missing value : 0)

Detection Frequency (sample) : 47/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	14
Median	12
Maximum	480
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	44
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	5
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	170
Akita Pref.	4	Lake Hachiro	18
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	19
Fukushima Pref.	6	Onahama Port	12
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	90
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	47
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	160
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	34
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	64
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	30
	13	Mouth of Riv. Sumida (Minato Ward)	26
Yokohama City	14	Yokohama Port	22
Kawasaki City	15	Keihin Canal, Port of Kawasaki	23
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	32
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	4
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	480
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(2)
Nagano Pref.	20	Lake Suwa (center)	13
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	8
Aichi Pref.	22	Nagoya Port	11
Mie Pref.	23	Yokkaichi Port	7
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	27
Kyoto Pref.	25	Miyazu Port	6
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	42
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	230
Osaka City	28	Osaka Port	34
Hyogo Pref.	29	Offshore of Himeji	7
Kobe City	30	Kobe Port (center)	13
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	12
Okayama Pref.	32	Offshore of Mizushima	6
Hiroshima Pref.	33	Kure Port	6
	34	Hiroshima Bay	6
Yamaguchi Pref.	35	Tokuyama Bay	5
	36	Offshore of Ube	5
	37	Offshore of Hagi	4
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	7
Kagawa Pref.	39	Takamatsu Port	8
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(2)
Kitakyushu City	41	Dokai Bay	29
Saga Pref.	42	Imari Bay	4
Nagasaki Pref.	43	Omura Bay	4
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	17
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	6
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	6
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	5
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

[11-4]  $\delta$ -HCH/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 46/48 (Missing value : 0)

Detection Frequency (sample) : 46/48 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.0

	Aggregated value
Geometric mean	5.1
Median	5.3
Maximum	85
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	31
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	39
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	65
Akita Pref.	4	Lake Hachiro	28
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	19
Fukushima Pref.	6	Onahama Port	1.6
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	12
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	7.0
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	28
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	15
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	21
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	7.3
	13	Mouth of Riv. Sumida (Minato Ward)	6.0
Yokohama City	14	Yokohama Port	4.3
Kawasaki City	15	Keihin Canal, Port of Kawasaki	4.7
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	19
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	2.0
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	8.2
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	9.4
Nagano Pref.	20	Lake Suwa (center)	12
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	3.9
Aichi Pref.	22	Nagoya Port	4.7
Mie Pref.	23	Yokkaichi Port	4.5
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	7.8
Kyoto Pref.	25	Miyazu Port	tr(0.7)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	13
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	53
Osaka City	28	Osaka Port	15
Hyogo Pref.	29	Offshore of Himeji	2.1
Kobe City	30	Kobe Port (center)	6.2
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	7.0
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	1.0
	34	Hiroshima Bay	1.1
Yamaguchi Pref.	35	Tokuyama Bay	1.3
	36	Offshore of Ube	1.4
	37	Offshore of Hagi	tr(0.6)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	2.2
Kagawa Pref.	39	Takamatsu Port	4.7
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	1.2
Kitakyushu City	41	Dokai Bay	85
Saga Pref.	42	Imari Bay	1.8
Nagasaki Pref.	43	Omura Bay	tr(0.5)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	5.7
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	2.3
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	4.6
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	4.9
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14] Polybromodiphenyl ethers (B<sub>4</sub> - Br<sub>10</sub>) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 44/48 (Missing value : 0)

Detection Frequency (sample) : 44/48 (Missing value : 0)

Detection limit : \*19

Quantification limit : \*48

	Aggregated value
Geometric mean	130
Median	140
Maximum	2,400
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	670
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(21)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	440
Akita Pref.	4	Lake Hachiro	48
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	210
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	340
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	72
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	370
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	330
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	130
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	520
	13	Mouth of Riv. Sumida (Minato Ward)	110
Yokohama City	14	Yokohama Port	140
Kawasaki City	15	Keihin Canal, Port of Kawasaki	170
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	730
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	520
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	330
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(40)
Nagano Pref.	20	Lake Suwa (center)	tr(45)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(44)
Aichi Pref.	22	Nagoya Port	1,200
Mie Pref.	23	Yokkaichi Port	140
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(44)
Kyoto Pref.	25	Miyazu Port	60
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	710
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	780
Osaka City	28	Osaka Port	2,400
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	tr(38)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	360
Okayama Pref.	32	Offshore of Mizushima	50
Hiroshima Pref.	33	Kure Port	tr(21)
	34	Hiroshima Bay	74
Yamaguchi Pref.	35	Tokuyama Bay	1,200
	36	Offshore of Ube	100
	37	Offshore of Hagi	200
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(28)
Kagawa Pref.	39	Takamatsu Port	550
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	200
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	tr(22)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	270
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	100
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(35)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	67
Okinawa Pref.	48	Naha Port	470

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.



## [14-1] Tetrabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 39/48 (Missing value : 0)

Detection Frequency (sample) : 39/48 (Missing value : 0)

Detection limit : 4

Quantification limit : 11

	Aggregated value
Geometric mean	tr(6)
Median	tr(6)
Maximum	320
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(7)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(5)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	320
Akita Pref.	4	Lake Hachiro	tr(4)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(4)
Fukushima Pref.	6	Onahama Port	tr(6)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(4)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(4)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	17
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	11
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(9)
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	tr(7)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(7)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(7)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(6)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(6)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(5)
Nagano Pref.	20	Lake Suwa (center)	tr(5)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(6)
Aichi Pref.	22	Nagoya Port	tr(7)
Mie Pref.	23	Yokkaichi Port	tr(5)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(5)
Kyoto Pref.	25	Miyazu Port	tr(6)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(8)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	11
Osaka City	28	Osaka Port	tr(8)
Hyogo Pref.	29	Offshore of Himeji	tr(7)
Kobe City	30	Kobe Port (center)	tr(6)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(6)
Okayama Pref.	32	Offshore of Mizushima	tr(6)
Hiroshima Pref.	33	Kure Port	tr(7)
	34	Hiroshima Bay	tr(4)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(7)
Nagasaki Pref.	43	Omura Bay	tr(6)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(7)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(7)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(6)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(7)
Okinawa Pref.	48	Naha Port	tr(6)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-1-1] 2,2',4,4'-Tetrabromodiphenyl ether (#47) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 39/48 (Missing value : 0)

Detection Frequency (sample) : 39/48 (Missing value : 0)

Detection limit : 4

Quantification limit : 11

	Aggregated value
Geometric mean	tr(6)
Median	tr(6)
Maximum	310
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(7)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(5)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	310
Akita Pref.	4	Lake Hachiro	tr(4)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(4)
Fukushima Pref.	6	Onahama Port	tr(6)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(4)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(4)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	17
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	11
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(9)
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	tr(7)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(7)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(7)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(6)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(6)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(5)
Nagano Pref.	20	Lake Suwa (center)	tr(5)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(6)
Aichi Pref.	22	Nagoya Port	tr(7)
Mie Pref.	23	Yokkaichi Port	tr(5)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(5)
Kyoto Pref.	25	Miyazu Port	tr(6)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(8)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	11
Osaka City	28	Osaka Port	tr(8)
Hyogo Pref.	29	Offshore of Himeji	tr(7)
Kobe City	30	Kobe Port (center)	tr(6)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(6)
Okayama Pref.	32	Offshore of Mizushima	tr(6)
Hiroshima Pref.	33	Kure Port	tr(7)
	34	Hiroshima Bay	tr(4)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(7)
Nagasaki Pref.	43	Omura Bay	tr(6)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(7)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(7)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(6)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(7)
Okinawa Pref.	48	Naha Port	tr(6)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-2] Pentabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 19/48 (Missing value : 0)

Detection Frequency (sample) : 19/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	69
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(3)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(2)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	69
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(4)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(2)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	13
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	7
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(5)
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	tr(3)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(3)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(4)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	8
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(3)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(4)
Osaka City	28	Osaka Port	tr(3)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(2)
	36	Offshore of Ube	tr(2)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	6
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-2-1] 2,2',4,4',5-Pentabromodiphenyl ether (#99) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 23/48 (Missing value : 0)

Detection Frequency (sample) : 23/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	42
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(3)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(2)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	42
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(4)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(2)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	10
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(4)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(3)
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	tr(3)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(3)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(4)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(3)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(3)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(4)
Osaka City	28	Osaka Port	tr(3)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(2)
	36	Offshore of Ube	tr(2)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(2)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(2)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(2)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(3)
Okinawa Pref.	48	Naha Port	tr(2)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-3] Hexabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 5/48 (Missing value : 0)

Detection Frequency (sample) : 5/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 2

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	8
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	4
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	8
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	3
Osaka City	28	Osaka Port	tr(1)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(1)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-3-1] 2,2',4,4',5,5'-Hexabromodiphenyl ether (#153) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 5/48 (Missing value : 0)

Detection Frequency (sample) : 5/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 2

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	3
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	2
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(1)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	3
Osaka City	28	Osaka Port	tr(1)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(1)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-3-2] 2,2',4,4',5,6'-Hexabromodiphenyl ether (#154) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 2/48 (Missing value : 0)

Detection Frequency (sample) : 2/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 2

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	2
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(1)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	2
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-4] Heptabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 2/48 (Missing value : 0)

Detection Frequency (sample) : 2/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	6
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	6
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(3)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[14-4-1] 2,2',3,3',4,5',6-Heptabromodiphenyl ether (#175) /surface water (pg/L) and

[14-4-2] 2,2',3,4,4',5',6-Heptabromodiphenyl ether (#183) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 1/48 (Missing value : 0)

Detection Frequency (sample) : 1/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	6
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	6
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [14-5] Octabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 12/48 (Missing value : 0)

Detection Frequency (sample) : 12/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	14
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	14
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	5
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	8
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	tr(2)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	5
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	4
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	6
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	9
Osaka City	28	Osaka Port	8
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(2)
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(1)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-6] Nonabromodiphenyl ethers/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 27/48 (Missing value : 0)

Detection Frequency (sample) : 27/48 (Missing value : 0)

Detection limit : 3

Quantification limit : 8

	Aggregated value
Geometric mean	tr(7)
Median	8
Maximum	150
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	86
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	23
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	19
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(7)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	19
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	19
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	8
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	37
	13	Mouth of Riv. Sumida (Minato Ward)	8
Yokohama City	14	Yokohama Port	15
Kawasaki City	15	Keihin Canal, Port of Kawasaki	12
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	27
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	40
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	26
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	62
Mie Pref.	23	Yokkaichi Port	8
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	61
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	67
Osaka City	28	Osaka Port	150
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	26
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	64
	36	Offshore of Ube	nd
	37	Offshore of Hagi	16
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	35
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	16
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	12
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(7)
Okinawa Pref.	48	Naha Port	24

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-7] Decabromodiphenyl ether/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 6

Quantification limit : 14

	Aggregated value
Geometric mean	110
Median	99
Maximum	2,200
Minimum	tr(10)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	560
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	14
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	53
Akita Pref.	4	Lake Hachiro	44
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	14
Fukushima Pref.	6	Onahama Port	170
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	320
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	59
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	350
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	260
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	100
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	470
	13	Mouth of Riv. Sumida (Minato Ward)	97
Yokohama City	14	Yokohama Port	120
Kawasaki City	15	Keihin Canal, Port of Kawasaki	150
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	690
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	470
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	290
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	35
Nagano Pref.	20	Lake Suwa (center)	40
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	38
Aichi Pref.	22	Nagoya Port	1,100
Mie Pref.	23	Yokkaichi Port	130
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	39
Kyoto Pref.	25	Miyazu Port	54
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	630
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	690
Osaka City	28	Osaka Port	2,200
Hyogo Pref.	29	Offshore of Himeji	tr(11)
Kobe City	30	Kobe Port (center)	32
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	330
Okayama Pref.	32	Offshore of Mizushima	44
Hiroshima Pref.	33	Kure Port	14
	34	Hiroshima Bay	70
Yamaguchi Pref.	35	Tokuyama Bay	1,100
	36	Offshore of Ube	98
	37	Offshore of Hagi	180
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	28
Kagawa Pref.	39	Takamatsu Port	510
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(12)
Kitakyushu City	41	Dokai Bay	180
Saga Pref.	42	Imari Bay	tr(10)
Nagasaki Pref.	43	Omura Bay	tr(10)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	250
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	94
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	29
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	53
Okinawa Pref.	48	Naha Port	440

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [15] Perfluorooctane sulfonic acid (PFOS) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 47/48 (Missing value : 0)

Detection Frequency (sample) : 47/48 (Missing value : 0)

Detection limit : 30

Quantification limit : 80

	Aggregated value
Geometric mean	290
Median	260
Maximum	2,500
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	180
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(50)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	270
Akita Pref.	4	Lake Hachiro	470
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	200
Fukushima Pref.	6	Onahama Port	tr(50)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	990
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	1,300
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	560
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	980
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	1,500
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	1,100
	13	Mouth of Riv. Sumida (Minato Ward)	1,400
Yokohama City	14	Yokohama Port	1,300
Kawasaki City	15	Keihin Canal, Port of Kawasaki	1,200
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	360
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	110
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1,700
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	150
Nagano Pref.	20	Lake Suwa (center)	410
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	130
Aichi Pref.	22	Nagoya Port	530
Mie Pref.	23	Yokkaichi Port	210
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	490
Kyoto Pref.	25	Miyazu Port	tr(30)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	2,500
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	1,400
Osaka City	28	Osaka Port	1,500
Hyogo Pref.	29	Offshore of Himeji	220
Kobe City	30	Kobe Port (center)	920
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	220
Okayama Pref.	32	Offshore of Mizushima	180
Hiroshima Pref.	33	Kure Port	280
	34	Hiroshima Bay	240
Yamaguchi Pref.	35	Tokuyama Bay	tr(60)
	36	Offshore of Ube	tr(70)
	37	Offshore of Hagi	tr(30)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	180
Kagawa Pref.	39	Takamatsu Port	290
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	90
Kitakyushu City	41	Dokai Bay	240
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	260
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	690
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	260
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	120
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	220
Okinawa Pref.	48	Naha Port	170

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [16] Perfluorooctanoic acid (PFOA) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 40

Quantification limit : 90

	Aggregated value
Geometric mean	1,000
Median	900
Maximum	11,000
Minimum	160

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1,100
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	170
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	640
Akita Pref.	4	Lake Hachiro	2,000
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	560
Fukushima Pref.	6	Onahama Port	380
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	4,300
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	1,600
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	2,900
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	3,100
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	3,500
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	2,100
	13	Mouth of Riv. Sumida (Minato Ward)	1,100
Yokohama City	14	Yokohama Port	1,700
Kawasaki City	15	Keihin Canal, Port of Kawasaki	4,700
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	1,100
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	320
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	10,000
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	630
Nagano Pref.	20	Lake Suwa (center)	610
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	330
Aichi Pref.	22	Nagoya Port	780
Mie Pref.	23	Yokkaichi Port	1,000
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	3,600
Kyoto Pref.	25	Miyazu Port	490
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	11,000
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	10,000
Osaka City	28	Osaka Port	8,900
Hyogo Pref.	29	Offshore of Himeji	870
Kobe City	30	Kobe Port (center)	2,200
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,500
Okayama Pref.	32	Offshore of Mizushima	580
Hiroshima Pref.	33	Kure Port	360
	34	Hiroshima Bay	350
Yamaguchi Pref.	35	Tokuyama Bay	210
	36	Offshore of Ube	390
	37	Offshore of Hagi	300
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	690
Kagawa Pref.	39	Takamatsu Port	920
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	190
Kitakyushu City	41	Dokai Bay	1,800
Saga Pref.	42	Imari Bay	420
Nagasaki Pref.	43	Omura Bay	2,500
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	1,300
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	700
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	230
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	400
Okinawa Pref.	48	Naha Port	160

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [17] Pentachlorobenzene/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	9
Median	7
Maximum	360
Minimum	tr(2)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	21
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	7
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	6
Akita Pref.	4	Lake Hachiro	7
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	13
Fukushima Pref.	6	Onahama Port	13
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	81
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	9
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	360
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	73
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	38
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	80
	13	Mouth of Riv. Sumida (Minato Ward)	20
Yokohama City	14	Yokohama Port	29
Kawasaki City	15	Keihin Canal, Port of Kawasaki	46
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	29
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	15
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	12
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	11
Nagano Pref.	20	Lake Suwa (center)	32
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(4)
Aichi Pref.	22	Nagoya Port	14
Mie Pref.	23	Yokkaichi Port	tr(4)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	6
Kyoto Pref.	25	Miyazu Port	tr(2)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	46
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	16
Osaka City	28	Osaka Port	13
Hyogo Pref.	29	Offshore of Himeji	tr(3)
Kobe City	30	Kobe Port (center)	tr(4)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	6
Okayama Pref.	32	Offshore of Mizushima	tr(3)
Hiroshima Pref.	33	Kure Port	tr(3)
	34	Hiroshima Bay	tr(3)
Yamaguchi Pref.	35	Tokuyama Bay	tr(4)
	36	Offshore of Ube	tr(3)
	37	Offshore of Hagi	tr(2)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	7
Kagawa Pref.	39	Takamatsu Port	tr(4)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(2)
Kitakyushu City	41	Dokai Bay	18
Saga Pref.	42	Imari Bay	tr(4)
Nagasaki Pref.	43	Omura Bay	tr(2)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(5)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(3)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(4)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(4)
Okinawa Pref.	48	Naha Port	tr(3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [20] Total Polychlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 32/48 (Missing value : 0)

Detection Frequency (sample) : 32/48 (Missing value : 0)

Detection limit : \*7.5

Quantification limit : \*24

	Aggregated value
Geometric mean	tr(14)
Median	tr(12)
Maximum	260
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(8.1)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	160
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	tr(19)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	35
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	38
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	190
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	97
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(14)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	26
	13	Mouth of Riv. Sumida (Minato Ward)	49
Yokohama City	14	Yokohama Port	72
Kawasaki City	15	Keihin Canal, Port of Kawasaki	260
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	32
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	71
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(11)
Nagano Pref.	20	Lake Suwa (center)	tr(8.5)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	tr(18)
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	tr(15)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	82
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	64
Osaka City	28	Osaka Port	57
Hyogo Pref.	29	Offshore of Himeji	25
Kobe City	30	Kobe Port (center)	tr(8.3)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(9.4)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	tr(7.8)
	34	Hiroshima Bay	tr(8.9)
Yamaguchi Pref.	35	Tokuyama Bay	tr(16)
	36	Offshore of Ube	tr(11)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(17)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	tr(12)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(16)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(16)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.



## [20-1] Monochlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 48/48 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	3
Median	3
Maximum	18
Minimum	tr(1)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	3
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(1)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	5
Akita Pref.	4	Lake Hachiro	tr(1)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(1)
Fukushima Pref.	6	Onahama Port	11
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	7
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(1)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	3
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	5
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(1)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(2)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(2)
Yokohama City	14	Yokohama Port	5
Kawasaki City	15	Keihin Canal, Port of Kawasaki	6
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(2)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(2)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	3
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	4
Nagano Pref.	20	Lake Suwa (center)	3
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(1)
Aichi Pref.	22	Nagoya Port	10
Mie Pref.	23	Yokkaichi Port	5
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(2)
Kyoto Pref.	25	Miyazu Port	10
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	3
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	3
Osaka City	28	Osaka Port	3
Hyogo Pref.	29	Offshore of Himeji	18
Kobe City	30	Kobe Port (center)	4
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	3
Hiroshima Pref.	33	Kure Port	3
	34	Hiroshima Bay	4
Yamaguchi Pref.	35	Tokuyama Bay	13
	36	Offshore of Ube	7
	37	Offshore of Hagi	7
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(2)
Kagawa Pref.	39	Takamatsu Port	3
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	tr(2)
Kitakyushu City	41	Dokai Bay	5
Saga Pref.	42	Imari Bay	4
Nagasaki Pref.	43	Omura Bay	9
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(2)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(2)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(1)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(1)
Okinawa Pref.	48	Naha Port	7

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [20-2] Dichlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 35/48 (Missing value : 0)

Detection Frequency (sample) : 35/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	tr(2)
Median	tr(2)
Maximum	11
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(2)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	11
Akita Pref.	4	Lake Hachiro	tr(2)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	5
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	6
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(2)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	5
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	6
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(1)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(3)
Yokohama City	14	Yokohama Port	8
Kawasaki City	15	Keihin Canal, Port of Kawasaki	8
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(1)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(1)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	5
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(3)
Nagano Pref.	20	Lake Suwa (center)	tr(2)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	5
Mie Pref.	23	Yokkaichi Port	tr(1)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(1)
Kyoto Pref.	25	Miyazu Port	5
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	6
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	4
Osaka City	28	Osaka Port	tr(2)
Hyogo Pref.	29	Offshore of Himeji	5
Kobe City	30	Kobe Port (center)	tr(2)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	tr(1)
Hiroshima Pref.	33	Kure Port	tr(2)
	34	Hiroshima Bay	tr(2)
Yamaguchi Pref.	35	Tokuyama Bay	tr(3)
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(1)
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(1)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	tr(3)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	4
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-3] Trichlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 36/48 (Missing value : 0)

Detection Frequency (sample) : 36/48 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	tr(3)
Median	tr(2)
Maximum	60
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(3)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(1)
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	26
Akita Pref.	4	Lake Hachiro	4
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(2)
Fukushima Pref.	6	Onahama Port	tr(3)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	7
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	4
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	18
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	10
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(2)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	13
	13	Mouth of Riv. Sumida (Minato Ward)	21
Yokohama City	14	Yokohama Port	23
Kawasaki City	15	Keihin Canal, Port of Kawasaki	60
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	4
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	18
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(2)
Nagano Pref.	20	Lake Suwa (center)	4
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(1)
Aichi Pref.	22	Nagoya Port	tr(3)
Mie Pref.	23	Yokkaichi Port	tr(1)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	tr(1)
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	14
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	7
Osaka City	28	Osaka Port	16
Hyogo Pref.	29	Offshore of Himeji	tr(2)
Kobe City	30	Kobe Port (center)	tr(2)
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	tr(3)
	34	Hiroshima Bay	tr(3)
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	4
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(2)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	4
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(2)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	tr(2)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-4] Tetrachlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 22/48 (Missing value : 0)

Detection Frequency (sample) : 22/48 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	tr(3)
Median	nd
Maximum	170
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	100
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	6
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	23
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	62
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	34
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	8
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	8
	13	Mouth of Riv. Sumida (Minato Ward)	19
Yokohama City	14	Yokohama Port	29
Kawasaki City	15	Keihin Canal, Port of Kawasaki	170
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	15
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	33
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(2)
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	40
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	35
Osaka City	28	Osaka Port	28
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(2)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(2)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	6
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(2)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(4)
Okinawa Pref.	48	Naha Port	tr(5)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-5] Pentachlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 23/48 (Missing value : 0)

Detection Frequency (sample) : 23/48 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.6

	Aggregated value
Geometric mean	tr(1.1)
Median	nd
Maximum	50
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	18
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	6.6
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	8.1
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	50
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	37
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	2.1
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	2.0
	13	Mouth of Riv. Sumida (Minato Ward)	4.1
Yokohama City	14	Yokohama Port	6.9
Kawasaki City	15	Keihin Canal, Port of Kawasaki	14
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	9.8
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	12
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.8)
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	18
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	15
Osaka City	28	Osaka Port	8.3
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(1.0)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
Yamaguchi Pref.	34	Hiroshima Bay	nd
	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(0.9)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	2.9
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	1.7
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(0.7)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(1.4)
Okinawa Pref.	48	Naha Port	1.7

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-6] Hexachlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 5/48 (Missing value : 0)

Detection Frequency (sample) : 5/48 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.1

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	32
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(2.0)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	32
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	4.7
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(0.9)
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(1.0)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-7] Heptachlorinated naphthalenes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 3/48 (Missing value : 0)

Detection Frequency (sample) : 3/48 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.5

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	14
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	14
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(0.8)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(1.2)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-8] Octachlorinated naphthalene/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 1/48 (Missing value : 0)

Detection Frequency (sample) : 1/48 (Missing value : 0)

Detection limit : 0.5

Quantification limit : 1.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	3.1
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	3.1
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected



## [22] Pentachlorophenol and its salts and esters/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 30/48 (Missing value : 0)

Detection Frequency (sample) : 30/48 (Missing value : 0)

Detection limit : \*30

Quantification limit : \*90

	Aggregated value
Geometric mean	tr(70)
Median	tr(50)
Maximum	3,700
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	170
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	270
Akita Pref.	4	Lake Hachiro	tr(40)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	400
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	640
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	3,700
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	820
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	180
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	450
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	310
	13	Mouth of Riv. Sumida (Minato Ward)	140
Yokohama City	14	Yokohama Port	140
Kawasaki City	15	Keihin Canal, Port of Kawasaki	310
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	120
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	430
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	110
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	tr(50)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(30)
Aichi Pref.	22	Nagoya Port	240
Mie Pref.	23	Yokkaichi Port	240
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	90
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	360
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	410
Osaka City	28	Osaka Port	160
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	230
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	120
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(40)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(50)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(50)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(30)
Okinawa Pref.	48	Naha Port	tr(50)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each target chemicals.

## [22-1] Pentachlorophenol/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 32/48 (Missing value : 0)

Detection Frequency (sample) : 32/48 (Missing value : 0)

Detection limit : 20

Quantification limit : 60

	Aggregated value
Geometric mean	tr(60)
Median	tr(50)
Maximum	3,500
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	110
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	260
Akita Pref.	4	Lake Hachiro	tr(40)
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	370
Fukushima Pref.	6	Onahama Port	tr(20)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	590
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	3,500
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	680
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	90
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	360
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	210
	13	Mouth of Riv. Sumida (Minato Ward)	120
Yokohama City	14	Yokohama Port	120
Kawasaki City	15	Keihin Canal, Port of Kawasaki	280
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	80
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	410
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	110
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	tr(50)
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(30)
Aichi Pref.	22	Nagoya Port	240
Mie Pref.	23	Yokkaichi Port	230
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	60
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	270
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	370
Osaka City	28	Osaka Port	130
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	210
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	120
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	tr(40)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(50)
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(50)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(30)
Okinawa Pref.	48	Naha Port	tr(50)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [22-2] Pentachloroanisole/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 20/48 (Missing value : 0)

Detection Frequency (sample) : 20/48 (Missing value : 0)

Detection limit : 10

Quantification limit : 30

	Aggregated value
Geometric mean	tr(10)
Median	nd
Maximum	210
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	60
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	tr(10)
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	30
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	50
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	210
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	140
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	80
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	90
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	100
	13	Mouth of Riv. Sumida (Minato Ward)	tr(20)
Yokohama City	14	Yokohama Port	tr(20)
Kawasaki City	15	Keihin Canal, Port of Kawasaki	30
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	40
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(20)
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	tr(10)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	30
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	90
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	40
Osaka City	28	Osaka Port	30
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(20)
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
Yamaguchi Pref.	34	Hiroshima Bay	nd
	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23] Short-chain chlorinated paraffins/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 13/48 (Missing value : 0)

Detection Frequency (sample) : 13/48 (Missing value : 0)

Detection limit : \*1,600

Quantification limit : \*4,300

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	78,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	78,000
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	43,000
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(2,700)
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	tr(3,800)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(2,200)
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(1,800)
	36	Offshore of Ube	tr(2,000)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(2,400)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(3,600)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(3,100)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(1,600)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(1,900)
Okinawa Pref.	48	Naha Port	tr(2,900)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [23-1] Chlorinated decanes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 17/48 (Missing value : 0)

Detection Frequency (sample) : 17/48 (Missing value : 0)

Detection limit : 200

Quantification limit : 600

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	2,300
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(200)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	2,300
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(400)
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	tr(500)
	13	Mouth of Riv. Sumida (Minato Ward)	tr(400)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	700
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(300)
Osaka City	28	Osaka Port	tr(300)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(300)
	36	Offshore of Ube	tr(300)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(300)
Nagasaki Pref.	43	Omura Bay	tr(200)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	600
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(300)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(300)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(300)
Okinawa Pref.	48	Naha Port	tr(300)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-2] Chlorinated undecanes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 19/48 (Missing value : 0)

Detection Frequency (sample) : 19/48 (Missing value : 0)

Detection limit : 500

Quantification limit : 1,400

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	5,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(600)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	3,700
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	5,000
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(1,000)
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	tr(800)
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	tr(900)
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	tr(600)
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	2,200
	13	Mouth of Riv. Sumida (Minato Ward)	tr(600)
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	tr(600)
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	tr(500)
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(1,100)
Osaka City	28	Osaka Port	tr(700)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	tr(500)
Saga Pref.	42	Imari Bay	tr(500)
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(1,000)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(600)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(600)
Okinawa Pref.	48	Naha Port	tr(700)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-3] Chlorinated dodecanes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 20/48 (Missing value : 0)

Detection Frequency (sample) : 20/48 (Missing value : 0)

Detection limit : 400

Quantification limit : 1,000

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	34,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(700)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	1,000
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	34,000
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	tr(400)
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	14,000
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	tr(700)
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(400)
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	tr(800)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	tr(400)
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	tr(800)
Osaka City	28	Osaka Port	tr(400)
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(800)
	36	Offshore of Ube	tr(700)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(700)
Nagasaki Pref.	43	Omura Bay	tr(600)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	tr(600)
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	tr(700)
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(500)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(500)
Okinawa Pref.	48	Naha Port	tr(900)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-4] Chlorinated tridecanes/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 17/48 (Missing value : 0)

Detection Frequency (sample) : 17/48 (Missing value : 0)

Detection limit : 500

Quantification limit : 1,300

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	38,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	38,000
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	24,000
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	nd
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(500)
Aichi Pref.	22	Nagoya Port	tr(1,000)
Mie Pref.	23	Yokkaichi Port	tr(600)
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	3,400
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	tr(700)
	36	Offshore of Ube	tr(1,000)
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	tr(600)
Kagawa Pref.	39	Takamatsu Port	tr(700)
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	tr(900)
Nagasaki Pref.	43	Omura Bay	tr(600)
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	1,400
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	1,500
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	tr(800)
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	tr(500)
Okinawa Pref.	48	Naha Port	tr(1,000)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [24] Dicofol/surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 3/48 (Missing value : 0)

Detection Frequency (sample) : 3/48 (Missing value : 0)

Detection limit : 8

Quantification limit : 13

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	40
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(12)
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	nd
Akita Pref.	4	Lake Hachiro	nd
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	6	Onahama Port	nd
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	13
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	nd
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	nd
	13	Mouth of Riv. Sumida (Minato Ward)	nd
Yokohama City	14	Yokohama Port	nd
Kawasaki City	15	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	40
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	nd
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	22	Nagoya Port	nd
Mie Pref.	23	Yokkaichi Port	nd
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	25	Miyazu Port	nd
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	28	Osaka Port	nd
Hyogo Pref.	29	Offshore of Himeji	nd
Kobe City	30	Kobe Port (center)	nd
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	32	Offshore of Mizushima	nd
Hiroshima Pref.	33	Kure Port	nd
	34	Hiroshima Bay	nd
Yamaguchi Pref.	35	Tokuyama Bay	nd
	36	Offshore of Ube	nd
	37	Offshore of Hagi	nd
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	39	Takamatsu Port	nd
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	nd
Saga Pref.	42	Imari Bay	nd
Nagasaki Pref.	43	Omura Bay	nd
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	nd
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	nd
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	48	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [25] Perfluorohexane sulfonic acid (PFHxS) /surface water (pg/L)

Monitored year : 2019

Detection Frequency (site) : 45/48 (Missing value : 0)

Detection Frequency (sample) : 45/48 (Missing value : 0)

Detection limit : 30

Quantification limit : 60

	Aggregated value
Geometric mean	150
Median	120
Maximum	1,800
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	130
Iwate Pref.	2	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	80
Akita Pref.	4	Lake Hachiro	100
Yamagata Pref.	5	Mouth of Riv. Mogami (Sakata City)	120
Fukushima Pref.	6	Onahama Port	tr(30)
Ibaraki Pref.	7	Tonekamome-ohasi Bridge, Mouth of Riv. Tone (Kamisu City)	850
Tochigi Pref.	8	Tagawa Kyubun Area Head Works (Utsunomiya City)	790
Gunma Pref.	9	Tone-ozeki Weir, Riv. Tone (Chiyoda Town)	330
Saitama Pref.	10	Akigase-shusuiweir Weir, Riv. Arakawa (Shiki City)	850
Chiba City	11	Mouth of Riv. Hanami (Chiba City)	720
Tokyo Met.	12	Mouth of Riv. Arakawa (Koto Ward)	560
	13	Mouth of Riv. Sumida (Minato Ward)	690
Yokohama City	14	Yokohama Port	620
Kawasaki City	15	Keihin Canal, Port of Kawasaki	640
Niigata Pref.	16	Lower Riv. Shinano (Niigata City)	160
Toyama Pref.	17	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	70
Ishikawa Pref.	18	Mouth of Riv. Sai (Kanazawa City)	1,800
Fukui Pref.	19	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Nagano Pref.	20	Lake Suwa (center)	120
Shizuoka Pref.	21	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	70
Aichi Pref.	22	Nagoya Port	180
Mie Pref.	23	Yokkaichi Port	60
Shiga Pref.	24	Lake Biwa (center, offshore of Karasaki)	260
Kyoto Pref.	25	Miyazu Port	80
Kyoto City	26	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1,400
Osaka Pref.	27	Mouth of Riv. Yamato (Sakai City)	650
Osaka City	28	Osaka Port	610
Hyogo Pref.	29	Offshore of Himeji	80
Kobe City	30	Kobe Port (center)	270
Wakayama Pref.	31	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	120
Okayama Pref.	32	Offshore of Mizushima	90
Hiroshima Pref.	33	Kure Port	100
	34	Hiroshima Bay	90
Yamaguchi Pref.	35	Tokuyama Bay	tr(50)
	36	Offshore of Ube	70
	37	Offshore of Hagi	tr(40)
Tokushima Pref.	38	Mouth of Riv. Yoshino (Tokushima City)	60
Kagawa Pref.	39	Takamatsu Port	130
Kochi Pref.	40	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	41	Dokai Bay	90
Saga Pref.	42	Imari Bay	tr(50)
Nagasaki Pref.	43	Omura Bay	150
Kumamoto Pref.	44	Hiraki-bashi Bridge, Riv. Midori (Uto City)	750
Miyazaki Pref.	45	Mouth of Riv. Oyodo (Miyazaki City)	90
Kagoshima Pref.	46	Shinkawa-bashi Bridge, Riv. Amori (Kirishima City)	110
	47	Gotanda-bashi Bridge, Riv. Gotanda (Ichikikushikino City)	90
Okinawa Pref.	48	Naha Port	100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1] Total Polychlorinated biphenyls (Total PCBs)/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : \*3.3

Quantification limit : \*12

	Aggregated value
Geometric mean	5,700
Median	7,900
Maximum	640,000
Minimum	37

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	910
	2	Tomakomai Port	7,900
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	62
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	4,100
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	170
Akita Pref.	6	Lake Hachiro	3,000
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1,500
Fukushima Pref.	8	Onahama Port	31,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	3,500
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	740
Chiba Pref.	11	Coast of Ichihara and Anegasaki	34,000
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	310
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	75,000
	14	Mouth of Riv. Sumida (Minato Ward)	310,000
Yokohama City	15	Yokohama Port	130,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	110,000
	17	Keihin Canal, Port of Kawasaki	230,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	180
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1,400
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	11,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	530
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	120
Nagano Pref.	23	Lake Suwa (center)	7,100
Shizuoka Pref.	24	Shimizu Port	16,000
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	130
Aichi Pref.	26	Kinuura Port	19,000
	27	Nagoya Port	23,000
Mie Pref.	28	Yokkaichi Port	91,000
	29	Toba Port	27,000
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	8,300
	31	Lake Biwa (center, offshore of Karasaki)	20,000
Kyoto Pref.	32	Miyazu Port	1,800
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	7,900
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	20,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	640,000
	36	Mouth of Riv. Yodo (Osaka City)	130,000
	37	Osaka Port	93,000
	38	Outside Osaka Port	47,000
Hyogo Pref.	39	Offshore of Himeji	15,000
Kobe City	40	Kobe Port (center)	290,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	320
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	13,000
Okayama Pref.	43	Offshore of Mizushima	3,300
Hiroshima Pref.	44	Kure Port	100,000
	45	Hiroshima Bay	21,000
Yamaguchi Pref.	46	Tokuyama Bay	4,800
	47	Offshore of Ube	5,100
	48	Offshore of Hagi	940
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	230
Kagawa Pref.	50	Takamatsu Port	63,000
Ehime Pref.	51	Niihama Port	250
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	260
Kitakyushu City	53	Dokai Bay	320,000
Fukuoka City	54	Hakata Bay	8,500
Saga Pref.	55	Imari Bay	6,700
Nagasaki Pref.	56	Omura Bay	8,100
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	390
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	37
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	62
	60	Riv. Gotanda (Ichikikushikino City)	48
Okinawa Pref.	61	Naha Port	110,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [1-1] Monochlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 56/61 (Missing value : 0)

Detection Frequency (sample) : 56/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	34
Median	74
Maximum	1,800
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	6.2
	2	Tomakomai Port	44
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	78
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	23
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	4.5
Fukushima Pref.	8	Onahama Port	440
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	31
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	200
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	1.7
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	350
	14	Mouth of Riv. Sumida (Minato Ward)	1,800
Yokohama City	15	Yokohama Port	1,300
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	74
	17	Keihin Canal, Port of Kawasaki	1,600
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(0.5)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	590
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	16
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	16
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(0.9)
Nagano Pref.	23	Lake Suwa (center)	76
Shizuoka Pref.	24	Shimizu Port	92
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.4)
Aichi Pref.	26	Kinuura Port	100
	27	Nagoya Port	180
Mie Pref.	28	Yokkaichi Port	340
	29	Toba Port	74
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	52
	31	Lake Biwa (center, offshore of Karasaki)	120
Kyoto Pref.	32	Miyazu Port	29
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	99
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	82
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	1,700
	36	Mouth of Riv. Yodo (Osaka City)	830
	37	Osaka Port	250
	38	Outside Osaka Port	260
Hyogo Pref.	39	Offshore of Himeji	170
Kobe City	40	Kobe Port (center)	430
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.9)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	370
Okayama Pref.	43	Offshore of Mizushima	56
Hiroshima Pref.	44	Kure Port	170
	45	Hiroshima Bay	140
Yamaguchi Pref.	46	Tokuyama Bay	70
	47	Offshore of Ube	43
	48	Offshore of Hagi	11
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	170
Ehime Pref.	51	Niihama Port	3.9
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	2.5
Kitakyushu City	53	Dokai Bay	740
Fukuoka City	54	Hakata Bay	70
Saga Pref.	55	Imari Bay	56
Nagasaki Pref.	56	Omura Bay	86
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.8
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(0.7)
	60	Riv. Gotanda (Ichikikushikino City)	2.2
Okinawa Pref.	61	Naha Port	230

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-2] Dichlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	310
Median	400
Maximum	26,000
Minimum	2.3

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	72
	2	Tomakomai Port	1,100
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	2.3
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	440
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	5.5
Akita Pref.	6	Lake Hachiro	56
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	29
Fukushima Pref.	8	Onahama Port	4,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	190
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	41
Chiba Pref.	11	Coast of Ichihara and Anegasaki	1,200
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	13
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	4,100
	14	Mouth of Riv. Sumida (Minato Ward)	14,000
Yokohama City	15	Yokohama Port	4,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	1,200
	17	Keihin Canal, Port of Kawasaki	5,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	12
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	50
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	400
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	26
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	5.9
Nagano Pref.	23	Lake Suwa (center)	220
Shizuoka Pref.	24	Shimizu Port	1,400
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	8.5
Aichi Pref.	26	Kinuura Port	920
	27	Nagoya Port	2,100
Mie Pref.	28	Yokkaichi Port	5,200
	29	Toba Port	360
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	240
	31	Lake Biwa (center, offshore of Karasaki)	1,200
Kyoto Pref.	32	Miyazu Port	150
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	960
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	4,500
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	26,000
	36	Mouth of Riv. Yodo (Osaka City)	8,100
	37	Osaka Port	4,700
	38	Outside Osaka Port	3,100
Hyogo Pref.	39	Offshore of Himeji	1,500
Kobe City	40	Kobe Port (center)	6,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	30
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	4,300
Okayama Pref.	43	Offshore of Mizushima	360
Hiroshima Pref.	44	Kure Port	1,700
	45	Hiroshima Bay	1,500
Yamaguchi Pref.	46	Tokuyama Bay	320
	47	Offshore of Ube	350
	48	Offshore of Hagi	59
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	11
Kagawa Pref.	50	Takamatsu Port	3,500
Ehime Pref.	51	Niihama Port	28
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	19
Kitakyushu City	53	Dokai Bay	5,900
Fukuoka City	54	Hakata Bay	560
Saga Pref.	55	Imari Bay	350
Nagasaki Pref.	56	Omura Bay	520
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	66
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	5.0
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	5.3
	60	Riv. Gotanda (Ichikikushikino City)	4.4
Okinawa Pref.	61	Naha Port	3,100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [1-3] Trichlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.7

	Aggregated value
Geometric mean	980
Median	1,100
Maximum	180,000
Minimum	4.8

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	170
	2	Tomakomai Port	1,100
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	4.8
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	560
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	28
Akita Pref.	6	Lake Hachiro	190
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	170
Fukushima Pref.	8	Onahama Port	7,800
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	800
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	310
Chiba Pref.	11	Coast of Ichihara and Anegasaki	6,400
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	70
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	27,000
	14	Mouth of Riv. Sumida (Minato Ward)	84,000
Yokohama City	15	Yokohama Port	16,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	13,000
	17	Keihin Canal, Port of Kawasaki	33,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	45
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	130
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	2,900
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	120
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	10
Nagano Pref.	23	Lake Suwa (center)	950
Shizuoka Pref.	24	Shimizu Port	5,300
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	25
Aichi Pref.	26	Kinuura Port	3,500
	27	Nagoya Port	7,000
Mie Pref.	28	Yokkaichi Port	26,000
	29	Toba Port	890
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,000
	31	Lake Biwa (center, offshore of Karasaki)	3,700
Kyoto Pref.	32	Miyazu Port	340
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	2,900
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	180,000
	36	Mouth of Riv. Yodo (Osaka City)	34,000
	37	Osaka Port	24,000
	38	Outside Osaka Port	9,000
Hyogo Pref.	39	Offshore of Himeji	3,500
Kobe City	40	Kobe Port (center)	27,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	25
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,700
Okayama Pref.	43	Offshore of Mizushima	530
Hiroshima Pref.	44	Kure Port	6,600
	45	Hiroshima Bay	3,500
Yamaguchi Pref.	46	Tokuyama Bay	610
	47	Offshore of Ube	870
	48	Offshore of Hagi	110
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	44
Kagawa Pref.	50	Takamatsu Port	24,000
Ehime Pref.	51	Niihama Port	60
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	41
Kitakyushu City	53	Dokai Bay	57,000
Fukuoka City	54	Hakata Bay	1,800
Saga Pref.	55	Imari Bay	1,400
Nagasaki Pref.	56	Omura Bay	1,400
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	180
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	10
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	12
	60	Riv. Gotanda (Ichikikushikino City)	7.1
Okinawa Pref.	61	Naha Port	8,500

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [1-4] Tetrachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	1,200
Median	1,500
Maximum	200,000
Minimum	8.7

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	230
	2	Tomakomai Port	1,900
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	14
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	820
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	25
Akita Pref.	6	Lake Hachiro	500
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	210
Fukushima Pref.	8	Onahama Port	8,200
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	1,100
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	240
Chiba Pref.	11	Coast of Ichihara and Anegasaki	9,700
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	83
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	24,000
	14	Mouth of Riv. Sumida (Minato Ward)	120,000
Yokohama City	15	Yokohama Port	27,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	29,000
	17	Keihin Canal, Port of Kawasaki	55,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	52
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	240
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	4,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	300
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	17
Nagano Pref.	23	Lake Suwa (center)	1,500
Shizuoka Pref.	24	Shimizu Port	5,200
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	34
Aichi Pref.	26	Kinuura Port	5,300
	27	Nagoya Port	7,000
Mie Pref.	28	Yokkaichi Port	30,000
	29	Toba Port	1,200
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,900
	31	Lake Biwa (center, offshore of Karasaki)	4,000
Kyoto Pref.	32	Miyazu Port	330
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1,600
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3,600
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	200,000
	36	Mouth of Riv. Yodo (Osaka City)	30,000
	37	Osaka Port	25,000
	38	Outside Osaka Port	9,500
Hyogo Pref.	39	Offshore of Himeji	3,200
Kobe City	40	Kobe Port (center)	30,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	63
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	2,600
Okayama Pref.	43	Offshore of Mizushima	460
Hiroshima Pref.	44	Kure Port	12,000
	45	Hiroshima Bay	3,600
Yamaguchi Pref.	46	Tokuyama Bay	580
	47	Offshore of Ube	1,300
	48	Offshore of Hagi	140
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	58
Kagawa Pref.	50	Takamatsu Port	21,000
Ehime Pref.	51	Niihama Port	55
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	52
Kitakyushu City	53	Dokai Bay	120,000
Fukuoka City	54	Hakata Bay	2,500
Saga Pref.	55	Imari Bay	940
Nagasaki Pref.	56	Omura Bay	1,400
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	82
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	8.7
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	12
	60	Riv. Gotanda (Ichikikushikino City)	9.0
Okinawa Pref.	61	Naha Port	14,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[1-4-1] 3,3',4,4'-Tetrachlorobiphenyl (#77) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 60/61 (Missing value : 0)

Detection Frequency (sample) : 60/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	27
Median	31
Maximum	3,200
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	4.4
	2	Tomakomai Port	28
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.4)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	21
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	0.5
Akita Pref.	6	Lake Hachiro	18
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	4.6
Fukushima Pref.	8	Onahama Port	170
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	23
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	5.1
Chiba Pref.	11	Coast of Ichihara and Anegasaki	300
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	2.0
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	600
	14	Mouth of Riv. Sumida (Minato Ward)	2,900
Yokohama City	15	Yokohama Port	500
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	120
	17	Keihin Canal, Port of Kawasaki	870
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	1.8
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	5.5
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	68
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	0.6
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	0.6
Nagano Pref.	23	Lake Suwa (center)	76
Shizuoka Pref.	24	Shimizu Port	150
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	0.8
Aichi Pref.	26	Kinuura Port	130
	27	Nagoya Port	130
Mie Pref.	28	Yokkaichi Port	430
	29	Toba Port	23
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	65
	31	Lake Biwa (center, offshore of Karasaki)	210
Kyoto Pref.	32	Miyazu Port	9.7
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	31
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	120
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	3,200
	36	Mouth of Riv. Yodo (Osaka City)	540
	37	Osaka Port	610
	38	Outside Osaka Port	290
Hyogo Pref.	39	Offshore of Himeji	290
Kobe City	40	Kobe Port (center)	440
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	1.5
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	310
Okayama Pref.	43	Offshore of Mizushima	12
Hiroshima Pref.	44	Kure Port	200
	45	Hiroshima Bay	78
Yamaguchi Pref.	46	Tokuyama Bay	17
	47	Offshore of Ube	18
	48	Offshore of Hagi	4.1
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	0.8
Kagawa Pref.	50	Takamatsu Port	430
Ehime Pref.	51	Niihama Port	2.0
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	1.5
Kitakyushu City	53	Dokai Bay	1,200
Fukuoka City	54	Hakata Bay	48
Saga Pref.	55	Imari Bay	19
Nagasaki Pref.	56	Omura Bay	35
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.0
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(0.3)
	60	Riv. Gotanda (Ichikikushikino City)	tr(0.3)
Okinawa Pref.	61	Naha Port	130

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[1-4-2] 3,4,4',5-Tetrachlorobiphenyl (#81) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 52/61 (Missing value : 0)

Detection Frequency (sample) : 52/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	3.1
Median	3.8
Maximum	300
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	0.7
	2	Tomakomai Port	3.8
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	2.3
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	3.4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1.2
Fukushima Pref.	8	Onahama Port	15
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	2.5
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	15
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.3)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	30
	14	Mouth of Riv. Sumida (Minato Ward)	100
Yokohama City	15	Yokohama Port	43
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	80
	17	Keihin Canal, Port of Kawasaki	97
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(0.2)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	0.8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	6.0
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	5.6
Shizuoka Pref.	24	Shimizu Port	8.0
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.2)
Aichi Pref.	26	Kinuura Port	11
	27	Nagoya Port	9.8
Mie Pref.	28	Yokkaichi Port	50
	29	Toba Port	4.6
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	9.0
	31	Lake Biwa (center, offshore of Karasaki)	22
Kyoto Pref.	32	Miyazu Port	0.7
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	3.2
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	9.7
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	300
	36	Mouth of Riv. Yodo (Osaka City)	65
	37	Osaka Port	49
	38	Outside Osaka Port	27
Hyogo Pref.	39	Offshore of Himeji	6.3
Kobe City	40	Kobe Port (center)	88
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.3)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	6.4
Okayama Pref.	43	Offshore of Mizushima	1.0
Hiroshima Pref.	44	Kure Port	27
	45	Hiroshima Bay	6.8
Yamaguchi Pref.	46	Tokuyama Bay	1.2
	47	Offshore of Ube	1.9
	48	Offshore of Hagi	tr(0.3)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.2)
Kagawa Pref.	50	Takamatsu Port	27
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.2)
Kitakyushu City	53	Dokai Bay	130
Fukuoka City	54	Hakata Bay	4.3
Saga Pref.	55	Imari Bay	2.2
Nagasaki Pref.	56	Omura Bay	2.8
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	33

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-5] Pentachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	1,100
Median	1,500
Maximum	120,000
Minimum	9.3

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	240
	2	Tomakomai Port	1,400
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	26
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	850
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	40
Akita Pref.	6	Lake Hachiro	1,200
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	580
Fukushima Pref.	8	Onahama Port	4,500
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	820
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	83
Chiba Pref.	11	Coast of Ichihara and Anegasaki	7,500
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	75
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	12,000
	14	Mouth of Riv. Sumida (Minato Ward)	61,000
Yokohama City	15	Yokohama Port	24,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	39,000
	17	Keihin Canal, Port of Kawasaki	58,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	43
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	200
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	2,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	61
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	42
Nagano Pref.	23	Lake Suwa (center)	2,100
Shizuoka Pref.	24	Shimizu Port	1,800
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	40
Aichi Pref.	26	Kinuura Port	4,100
	27	Nagoya Port	3,200
Mie Pref.	28	Yokkaichi Port	16,000
	29	Toba Port	2,200
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	2,600
	31	Lake Biwa (center, offshore of Karasaki)	6,000
Kyoto Pref.	32	Miyazu Port	290
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1,500
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	4,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	120,000
	36	Mouth of Riv. Yodo (Osaka City)	19,000
	37	Osaka Port	21,000
	38	Outside Osaka Port	12,000
Hyogo Pref.	39	Offshore of Himeji	2,800
Kobe City	40	Kobe Port (center)	44,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	94
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,800
Okayama Pref.	43	Offshore of Mizushima	290
Hiroshima Pref.	44	Kure Port	19,000
	45	Hiroshima Bay	3,900
Yamaguchi Pref.	46	Tokuyama Bay	600
	47	Offshore of Ube	910
	48	Offshore of Hagi	140
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	72
Kagawa Pref.	50	Takamatsu Port	7,900
Ehime Pref.	51	Niihama Port	31
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	59
Kitakyushu City	53	Dokai Bay	66,000
Fukuoka City	54	Hakata Bay	1,800
Saga Pref.	55	Imari Bay	1,000
Nagasaki Pref.	56	Omura Bay	1,500
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	29
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	9.3
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	19
	60	Riv. Gotanda (Ichikikushikino City)	12
Okinawa Pref.	61	Naha Port	17,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[1-5-1] 2,3,3',4,4'-Pentachlorobiphenyl (#105) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	71
Median	96
Maximum	8,000
Minimum	0.9

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	17
	2	Tomakomai Port	96
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	1.6
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	56
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	2.6
Akita Pref.	6	Lake Hachiro	78
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	32
Fukushima Pref.	8	Onahama Port	350
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	29
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	4.5
Chiba Pref.	11	Coast of Ichihara and Anegasaki	470
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	5.9
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	550
	14	Mouth of Riv. Sumida (Minato Ward)	3,000
Yokohama City	15	Yokohama Port	1,600
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	2,300
	17	Keihin Canal, Port of Kawasaki	4,700
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	2.9
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	16
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	130
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1.8
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	3.1
Nagano Pref.	23	Lake Suwa (center)	130
Shizuoka Pref.	24	Shimizu Port	170
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	3.5
Aichi Pref.	26	Kinuura Port	270
	27	Nagoya Port	190
Mie Pref.	28	Yokkaichi Port	880
	29	Toba Port	88
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	210
	31	Lake Biwa (center, offshore of Karasaki)	560
Kyoto Pref.	32	Miyazu Port	25
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	83
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	320
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	8,000
	36	Mouth of Riv. Yodo (Osaka City)	760
	37	Osaka Port	1,100
	38	Outside Osaka Port	870
Hyogo Pref.	39	Offshore of Himeji	160
Kobe City	40	Kobe Port (center)	2,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	6.8
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	160
Okayama Pref.	43	Offshore of Mizushima	15
Hiroshima Pref.	44	Kure Port	580
	45	Hiroshima Bay	180
Yamaguchi Pref.	46	Tokuyama Bay	25
	47	Offshore of Ube	57
	48	Offshore of Hagi	8.7
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	4.2
Kagawa Pref.	50	Takamatsu Port	680
Ehime Pref.	51	Niihama Port	2.0
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	5.1
Kitakyushu City	53	Dokai Bay	6,000
Fukuoka City	54	Hakata Bay	150
Saga Pref.	55	Imari Bay	83
Nagasaki Pref.	56	Omura Bay	100
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.4
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	0.9
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.8
	60	Riv. Gotanda (Ichikikushikino City)	1.3
Okinawa Pref.	61	Naha Port	610

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[1-5-2] 2,3,4,4',5-Pentachlorobiphenyl (#114) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 53/61 (Missing value : 0)

Detection Frequency (sample) : 53/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	3.2
Median	4.5
Maximum	460
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	0.7
	2	Tomakomai Port	6.0
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	1.7
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(0.2)
Akita Pref.	6	Lake Hachiro	3.4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1.5
Fukushima Pref.	8	Onahama Port	18
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	1.2
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.2)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	11
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.3)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	29
	14	Mouth of Riv. Sumida (Minato Ward)	150
Yokohama City	15	Yokohama Port	69
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	180
	17	Keihin Canal, Port of Kawasaki	200
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	0.6
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	6.2
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(0.2)
Nagano Pref.	23	Lake Suwa (center)	4.5
Shizuoka Pref.	24	Shimizu Port	6.1
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.2)
Aichi Pref.	26	Kinuura Port	4.7
	27	Nagoya Port	6.9
Mie Pref.	28	Yokkaichi Port	42
	29	Toba Port	3.5
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	8.5
	31	Lake Biwa (center, offshore of Karasaki)	25
Kyoto Pref.	32	Miyazu Port	0.9
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4.5
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	16
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	460
	36	Mouth of Riv. Yodo (Osaka City)	39
	37	Osaka Port	65
	38	Outside Osaka Port	46
Hyogo Pref.	39	Offshore of Himeji	6.1
Kobe City	40	Kobe Port (center)	85
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.3)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	8.5
Okayama Pref.	43	Offshore of Mizushima	0.5
Hiroshima Pref.	44	Kure Port	27
	45	Hiroshima Bay	6.1
Yamaguchi Pref.	46	Tokuyama Bay	0.7
	47	Offshore of Ube	2.4
	48	Offshore of Hagi	tr(0.4)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.2)
Kagawa Pref.	50	Takamatsu Port	33
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.2)
Kitakyushu City	53	Dokai Bay	370
Fukuoka City	54	Hakata Bay	5.2
Saga Pref.	55	Imari Bay	3.7
Nagasaki Pref.	56	Omura Bay	3.7
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	31

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-3] 2,3',4,4',5-Pentachlorobiphenyl (#118) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	190
Median	280
Maximum	19,000
Minimum	1.8

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	42
	2	Tomakomai Port	220
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	5.0
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	190
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	7.0
Akita Pref.	6	Lake Hachiro	230
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	91
Fukushima Pref.	8	Onahama Port	760
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	130
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	11
Chiba Pref.	11	Coast of Ichihara and Anegasaki	1,300
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	13
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	1,900
	14	Mouth of Riv. Sumida (Minato Ward)	9,800
Yokohama City	15	Yokohama Port	4,200
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	6,000
	17	Keihin Canal, Port of Kawasaki	13,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	6.6
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	38
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	320
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	3.7
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	7.6
Nagano Pref.	23	Lake Suwa (center)	300
Shizuoka Pref.	24	Shimizu Port	340
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	8.2
Aichi Pref.	26	Kinuura Port	740
	27	Nagoya Port	550
Mie Pref.	28	Yokkaichi Port	2,600
	29	Toba Port	280
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	480
	31	Lake Biwa (center, offshore of Karasaki)	1,200
Kyoto Pref.	32	Miyazu Port	64
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	280
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	670
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	19,000
	36	Mouth of Riv. Yodo (Osaka City)	3,000
	37	Osaka Port	3,200
	38	Outside Osaka Port	2,200
Hyogo Pref.	39	Offshore of Himeji	530
Kobe City	40	Kobe Port (center)	6,600
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	15
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	350
Okayama Pref.	43	Offshore of Mizushima	54
Hiroshima Pref.	44	Kure Port	2,500
	45	Hiroshima Bay	640
Yamaguchi Pref.	46	Tokuyama Bay	100
	47	Offshore of Ube	160
	48	Offshore of Hagi	28
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	10
Kagawa Pref.	50	Takamatsu Port	1,400
Ehime Pref.	51	Niihama Port	5.8
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	12
Kitakyushu City	53	Dokai Bay	11,000
Fukuoka City	54	Hakata Bay	380
Saga Pref.	55	Imari Bay	210
Nagasaki Pref.	56	Omura Bay	300
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	5.1
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	1.8
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	3.7
	60	Riv. Gotanda (Ichikikushikino City)	2.3
Okinawa Pref.	61	Naha Port	2,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[1-5-4] 2',3,4,4',5-Pentachlorobiphenyl (#123) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 50/61 (Missing value : 0)

Detection Frequency (sample) : 50/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	3.4
Median	4.4
Maximum	360
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	0.7
	2	Tomakomai Port	3.9
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	2.7
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	2.8
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1.9
Fukushima Pref.	8	Onahama Port	15
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	1.6
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	17
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.3)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	28
	14	Mouth of Riv. Sumida (Minato Ward)	140
Yokohama City	15	Yokohama Port	75
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	110
	17	Keihin Canal, Port of Kawasaki	190
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	0.8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	5.9
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	4.9
Shizuoka Pref.	24	Shimizu Port	7.1
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	6.5
	27	Nagoya Port	9.1
Mie Pref.	28	Yokkaichi Port	43
	29	Toba Port	3.4
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	8.4
	31	Lake Biwa (center, offshore of Karasaki)	23
Kyoto Pref.	32	Miyazu Port	1.4
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4.4
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	14
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	360
	36	Mouth of Riv. Yodo (Osaka City)	47
	37	Osaka Port	64
	38	Outside Osaka Port	47
Hyogo Pref.	39	Offshore of Himeji	7.6
Kobe City	40	Kobe Port (center)	87
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.4)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	6.5
Okayama Pref.	43	Offshore of Mizushima	0.8
Hiroshima Pref.	44	Kure Port	40
	45	Hiroshima Bay	10
Yamaguchi Pref.	46	Tokuyama Bay	1.4
	47	Offshore of Ube	2.9
	48	Offshore of Hagi	0.7
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.2)
Kagawa Pref.	50	Takamatsu Port	26
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.3)
Kitakyushu City	53	Dokai Bay	270
Fukuoka City	54	Hakata Bay	6.7
Saga Pref.	55	Imari Bay	4.3
Nagasaki Pref.	56	Omura Bay	5.3
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	35

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-5] 3,3',4,4',5-Pentachlorobiphenyl (#126) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 47/61 (Missing value : 0)

Detection Frequency (sample) : 47/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	2.2
Median	3.5
Maximum	80
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	0.5
	2	Tomakomai Port	5.4
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	1.9
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	2.2
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	0.9
Fukushima Pref.	8	Onahama Port	14
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	2.8
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	13
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.4)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	20
	14	Mouth of Riv. Sumida (Minato Ward)	53
Yokohama City	15	Yokohama Port	23
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	7.9
	17	Keihin Canal, Port of Kawasaki	40
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	0.8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	2.9
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	6.1
Shizuoka Pref.	24	Shimizu Port	3.7
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	4.8
	27	Nagoya Port	5.8
Mie Pref.	28	Yokkaichi Port	12
	29	Toba Port	3.0
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	17
	31	Lake Biwa (center, offshore of Karasaki)	17
Kyoto Pref.	32	Miyazu Port	0.9
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.1
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	14
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	80
	36	Mouth of Riv. Yodo (Osaka City)	15
	37	Osaka Port	17
	38	Outside Osaka Port	16
Hyogo Pref.	39	Offshore of Himeji	6.7
Kobe City	40	Kobe Port (center)	27
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	4.0
Okayama Pref.	43	Offshore of Mizushima	0.8
Hiroshima Pref.	44	Kure Port	15
	45	Hiroshima Bay	6.8
Yamaguchi Pref.	46	Tokuyama Bay	7.5
	47	Offshore of Ube	4.7
	48	Offshore of Hagi	0.5
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	10
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.3)
Kitakyushu City	53	Dokai Bay	52
Fukuoka City	54	Hakata Bay	3.5
Saga Pref.	55	Imari Bay	2.7
Nagasaki Pref.	56	Omura Bay	3.1
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	13

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-6] Hexachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	900
Median	1,300
Maximum	83,000
Minimum	3.7

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	150
	2	Tomakomai Port	1,300
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	13
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	860
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	49
Akita Pref.	6	Lake Hachiro	820
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	430
Fukushima Pref.	8	Onahama Port	3,200
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	430
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	50
Chiba Pref.	11	Coast of Ichihara and Anegasaki	5,700
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	48
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	5,700
	14	Mouth of Riv. Sumida (Minato Ward)	24,000
Yokohama City	15	Yokohama Port	26,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	23,000
	17	Keihin Canal, Port of Kawasaki	50,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	21
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	140
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	920
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	9.6
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	38
Nagano Pref.	23	Lake Suwa (center)	1,600
Shizuoka Pref.	24	Shimizu Port	1,500
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	23
Aichi Pref.	26	Kinuura Port	3,300
	27	Nagoya Port	2,200
Mie Pref.	28	Yokkaichi Port	9,600
	29	Toba Port	8,500
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,900
	31	Lake Biwa (center, offshore of Karasaki)	4,600
Kyoto Pref.	32	Miyazu Port	410
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	750
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3,200
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	76,000
	36	Mouth of Riv. Yodo (Osaka City)	21,000
	37	Osaka Port	14,000
	38	Outside Osaka Port	10,000
Hyogo Pref.	39	Offshore of Himeji	2,600
Kobe City	40	Kobe Port (center)	83,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	84
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,300
Okayama Pref.	43	Offshore of Mizushima	700
Hiroshima Pref.	44	Kure Port	32,000
	45	Hiroshima Bay	5,300
Yamaguchi Pref.	46	Tokuyama Bay	1,200
	47	Offshore of Ube	980
	48	Offshore of Hagi	240
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	38
Kagawa Pref.	50	Takamatsu Port	4,600
Ehime Pref.	51	Niihama Port	33
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	57
Kitakyushu City	53	Dokai Bay	24,000
Fukuoka City	54	Hakata Bay	1,200
Saga Pref.	55	Imari Bay	1,600
Nagasaki Pref.	56	Omura Bay	1,900
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	19
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	3.7
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	11
	60	Riv. Gotanda (Ichikikushikino City)	11
Okinawa Pref.	61	Naha Port	36,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.



[1-6-1] 2,3,3',4,4',5-Hexachlorobiphenyl (#156) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 59/61 (Missing value : 0)

Detection Frequency (sample) : 59/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	22
Median	27
Maximum	2,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	4.5
	2	Tomakomai Port	23
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.5)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	15
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(0.9)
Akita Pref.	6	Lake Hachiro	25
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	11
Fukushima Pref.	8	Onahama Port	87
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	8.4
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	1.1
Chiba Pref.	11	Coast of Ichihara and Anegasaki	93
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	1.6
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	140
	14	Mouth of Riv. Sumida (Minato Ward)	630
Yokohama City	15	Yokohama Port	550
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	910
	17	Keihin Canal, Port of Kawasaki	1,400
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(0.7)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	4.1
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	25
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(1.0)
Nagano Pref.	23	Lake Suwa (center)	43
Shizuoka Pref.	24	Shimizu Port	35
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.9)
Aichi Pref.	26	Kinuura Port	49
	27	Nagoya Port	43
Mie Pref.	28	Yokkaichi Port	240
	29	Toba Port	120
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	60
	31	Lake Biwa (center, offshore of Karasaki)	190
Kyoto Pref.	32	Miyazu Port	8.5
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	24
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	100
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	2,000
	36	Mouth of Riv. Yodo (Osaka City)	430
	37	Osaka Port	410
	38	Outside Osaka Port	350
Hyogo Pref.	39	Offshore of Himeji	59
Kobe City	40	Kobe Port (center)	1,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	2.6
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	44
Okayama Pref.	43	Offshore of Mizushima	7.9
Hiroshima Pref.	44	Kure Port	390
	45	Hiroshima Bay	71
Yamaguchi Pref.	46	Tokuyama Bay	12
	47	Offshore of Ube	13
	48	Offshore of Hagi	4.0
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(1.0)
Kagawa Pref.	50	Takamatsu Port	140
Ehime Pref.	51	Niihama Port	tr(0.6)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	1.6
Kitakyushu City	53	Dokai Bay	670
Fukuoka City	54	Hakata Bay	27
Saga Pref.	55	Imari Bay	30
Nagasaki Pref.	56	Omura Bay	37
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(0.7)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(0.4)
	60	Riv. Gotanda (Ichikikushikino City)	tr(0.5)
Okinawa Pref.	61	Naha Port	490

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-2] 2,3,3',4,4',5'-Hexachlorobiphenyl (#157) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 49/61 (Missing value : 0)

Detection Frequency (sample) : 49/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	5.5
Median	6.1
Maximum	490
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.1
	2	Tomakomai Port	3.8
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	4.0
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	5.4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	3.6
Fukushima Pref.	8	Onahama Port	18
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	2.4
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.5)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	27
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.4)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	34
	14	Mouth of Riv. Sumida (Minato Ward)	150
Yokohama City	15	Yokohama Port	120
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	170
	17	Keihin Canal, Port of Kawasaki	270
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1.2
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	6.2
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	9.3
Shizuoka Pref.	24	Shimizu Port	6.1
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	11
	27	Nagoya Port	9.8
Mie Pref.	28	Yokkaichi Port	53
	29	Toba Port	16
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	13
	31	Lake Biwa (center, offshore of Karasaki)	37
Kyoto Pref.	32	Miyazu Port	2.0
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	6.1
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	24
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	490
	36	Mouth of Riv. Yodo (Osaka City)	87
	37	Osaka Port	94
	38	Outside Osaka Port	80
Hyogo Pref.	39	Offshore of Himeji	14
Kobe City	40	Kobe Port (center)	280
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.7)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	9.9
Okayama Pref.	43	Offshore of Mizushima	1.3
Hiroshima Pref.	44	Kure Port	110
	45	Hiroshima Bay	17
Yamaguchi Pref.	46	Tokuyama Bay	2.4
	47	Offshore of Ube	2.6
	48	Offshore of Hagi	tr(0.9)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	32
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.4)
Kitakyushu City	53	Dokai Bay	130
Fukuoka City	54	Hakata Bay	6.0
Saga Pref.	55	Imari Bay	16
Nagasaki Pref.	56	Omura Bay	8.2
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	140

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-3] 2,3',4,4',5,5'-Hexachlorobiphenyl (#167) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 53/61 (Missing value : 0)

Detection Frequency (sample) : 53/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	9.8
Median	14
Maximum	770
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.7
	2	Tomakomai Port	9.6
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	8.4
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(0.4)
Akita Pref.	6	Lake Hachiro	9.5
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	4.9
Fukushima Pref.	8	Onahama Port	33
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	3.9
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.6)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	53
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.7)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	57
	14	Mouth of Riv. Sumida (Minato Ward)	250
Yokohama City	15	Yokohama Port	280
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	330
	17	Keihin Canal, Port of Kawasaki	600
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1.8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	9.4
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(0.5)
Nagano Pref.	23	Lake Suwa (center)	16
Shizuoka Pref.	24	Shimizu Port	14
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.4)
Aichi Pref.	26	Kinuura Port	24
	27	Nagoya Port	19
Mie Pref.	28	Yokkaichi Port	95
	29	Toba Port	67
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	23
	31	Lake Biwa (center, offshore of Karasaki)	61
Kyoto Pref.	32	Miyazu Port	4.1
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	8.7
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	40
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	770
	36	Mouth of Riv. Yodo (Osaka City)	200
	37	Osaka Port	170
	38	Outside Osaka Port	140
Hyogo Pref.	39	Offshore of Himeji	27
Kobe City	40	Kobe Port (center)	670
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	1.1
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	17
Okayama Pref.	43	Offshore of Mizushima	5.1
Hiroshima Pref.	44	Kure Port	230
	45	Hiroshima Bay	43
Yamaguchi Pref.	46	Tokuyama Bay	8.0
	47	Offshore of Ube	7.2
	48	Offshore of Hagi	2.1
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.5)
Kagawa Pref.	50	Takamatsu Port	57
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.8)
Kitakyushu City	53	Dokai Bay	300
Fukuoka City	54	Hakata Bay	14
Saga Pref.	55	Imari Bay	15
Nagasaki Pref.	56	Omura Bay	18
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	260

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-6-4] 3,3',4,4',5,5'-Hexachlorobiphenyl (#169) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 41/61 (Missing value : 0)

Detection Frequency (sample) : 41/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	2.0
Median	2.3
Maximum	180
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	1.7
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	1.4
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	4.0
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(0.6)
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	7.2
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	5.3
	14	Mouth of Riv. Sumida (Minato Ward)	18
Yokohama City	15	Yokohama Port	57
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	7.6
	17	Keihin Canal, Port of Kawasaki	29
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(0.4)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	tr(0.9)
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	3.6
Shizuoka Pref.	24	Shimizu Port	2.1
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	3.7
	27	Nagoya Port	2.0
Mie Pref.	28	Yokkaichi Port	5.9
	29	Toba Port	26
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	4.5
	31	Lake Biwa (center, offshore of Karasaki)	3.5
Kyoto Pref.	32	Miyazu Port	tr(0.7)
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	5.7
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	78
	36	Mouth of Riv. Yodo (Osaka City)	32
	37	Osaka Port	8.5
	38	Outside Osaka Port	7.5
Hyogo Pref.	39	Offshore of Himeji	2.8
Kobe City	40	Kobe Port (center)	180
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	2.3
Okayama Pref.	43	Offshore of Mizushima	4.7
Hiroshima Pref.	44	Kure Port	78
	45	Hiroshima Bay	13
Yamaguchi Pref.	46	Tokuyama Bay	6.1
	47	Offshore of Ube	2.6
	48	Offshore of Hagi	1.1
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	4.4
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	170
Fukuoka City	54	Hakata Bay	1.7
Saga Pref.	55	Imari Bay	3.9
Nagasaki Pref.	56	Omura Bay	4.6
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	60

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-7] Heptachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	310
Median	560
Maximum	79,000
Minimum	tr(0.4)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	35
	2	Tomakomai Port	880
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	1.6
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	380
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	21
Akita Pref.	6	Lake Hachiro	160
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	55
Fukushima Pref.	8	Onahama Port	1,600
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	100
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	11
Chiba Pref.	11	Coast of Ichihara and Anegasaki	2,500
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	15
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	1,500
	14	Mouth of Riv. Sumida (Minato Ward)	6,000
Yokohama City	15	Yokohama Port	16,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	4,000
	17	Keihin Canal, Port of Kawasaki	22,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	4.3
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	45
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	280
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1.5
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	6.3
Nagano Pref.	23	Lake Suwa (center)	540
Shizuoka Pref.	24	Shimizu Port	860
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	3.3
Aichi Pref.	26	Kinuura Port	1,400
	27	Nagoya Port	860
Mie Pref.	28	Yokkaichi Port	3,100
	29	Toba Port	11,000
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	480
	31	Lake Biwa (center, offshore of Karasaki)	730
Kyoto Pref.	32	Miyazu Port	210
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	100
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	1,200
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	31,000
	36	Mouth of Riv. Yodo (Osaka City)	13,000
	37	Osaka Port	3,200
	38	Outside Osaka Port	2,500
Hyogo Pref.	39	Offshore of Himeji	890
Kobe City	40	Kobe Port (center)	79,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	21
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	370
Okayama Pref.	43	Offshore of Mizushima	680
Hiroshima Pref.	44	Kure Port	24,000
	45	Hiroshima Bay	2,600
Yamaguchi Pref.	46	Tokuyama Bay	950
	47	Offshore of Ube	560
	48	Offshore of Hagi	180
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	11
Kagawa Pref.	50	Takamatsu Port	1,400
Ehime Pref.	51	Niihama Port	16
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	26
Kitakyushu City	53	Dokai Bay	27,000
Fukuoka City	54	Hakata Bay	460
Saga Pref.	55	Imari Bay	1,100
Nagasaki Pref.	56	Omura Bay	950
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	6.6
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	tr(0.4)
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.9
	60	Riv. Gotanda (Ichikikushikino City)	2.5
Okinawa Pref.	61	Naha Port	27,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[1-7-1] 2,2',3,3',4,4',5-Heptachlorobiphenyl (#170) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 60/61 (Missing value : 0)

Detection Frequency (sample) : 60/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	41
Median	69
Maximum	7,500
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	4.7
	2	Tomakomai Port	85
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.4)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	38
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	1.8
Akita Pref.	6	Lake Hachiro	23
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	8.7
Fukushima Pref.	8	Onahama Port	170
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	13
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	1.6
Chiba Pref.	11	Coast of Ichihara and Anegasaki	270
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	2.2
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	190
	14	Mouth of Riv. Sumida (Minato Ward)	840
Yokohama City	15	Yokohama Port	1,700
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	710
	17	Keihin Canal, Port of Kawasaki	2,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	0.8
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	6.0
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	31
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.4)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	0.9
Nagano Pref.	23	Lake Suwa (center)	72
Shizuoka Pref.	24	Shimizu Port	97
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	0.8
Aichi Pref.	26	Kinuura Port	130
	27	Nagoya Port	93
Mie Pref.	28	Yokkaichi Port	360
	29	Toba Port	1,100
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	69
	31	Lake Biwa (center, offshore of Karasaki)	130
Kyoto Pref.	32	Miyazu Port	20
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	16
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	150
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	3,700
	36	Mouth of Riv. Yodo (Osaka City)	1,400
	37	Osaka Port	460
	38	Outside Osaka Port	360
Hyogo Pref.	39	Offshore of Himeji	93
Kobe City	40	Kobe Port (center)	7,500
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3.2
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	53
Okayama Pref.	43	Offshore of Mizushima	65
Hiroshima Pref.	44	Kure Port	2,400
	45	Hiroshima Bay	230
Yamaguchi Pref.	46	Tokuyama Bay	82
	47	Offshore of Ube	56
	48	Offshore of Hagi	19
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	1.4
Kagawa Pref.	50	Takamatsu Port	200
Ehime Pref.	51	Niihama Port	1.5
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	3.0
Kitakyushu City	53	Dokai Bay	3,100
Fukuoka City	54	Hakata Bay	50
Saga Pref.	55	Imari Bay	110
Nagasaki Pref.	56	Omura Bay	100
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	1.1
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(0.5)
	60	Riv. Gotanda (Ichikikushikino City)	tr(0.6)
Okinawa Pref.	61	Naha Port	3,100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-7-2] 2,2',3,4,4',5,5'-Heptachlorobiphenyl (#180) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	94
Median	150
Maximum	23,000
Minimum	tr(0.4)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	9.9
	2	Tomakomai Port	250
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	0.8
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	99
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	6.5
Akita Pref.	6	Lake Hachiro	45
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	16
Fukushima Pref.	8	Onahama Port	450
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	27
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.9
Chiba Pref.	11	Coast of Ichihara and Anegasaki	630
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	4.5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	390
	14	Mouth of Riv. Sumida (Minato Ward)	1,800
Yokohama City	15	Yokohama Port	4,500
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	1,100
	17	Keihin Canal, Port of Kawasaki	6,100
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	1.7
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	13
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	76
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.7)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	1.9
Nagano Pref.	23	Lake Suwa (center)	140
Shizuoka Pref.	24	Shimizu Port	260
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	1.5
Aichi Pref.	26	Kinuura Port	340
	27	Nagoya Port	240
Mie Pref.	28	Yokkaichi Port	880
	29	Toba Port	3,300
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	130
	31	Lake Biwa (center, offshore of Karasaki)	190
Kyoto Pref.	32	Miyazu Port	47
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	28
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	330
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	9,200
	36	Mouth of Riv. Yodo (Osaka City)	4,100
	37	Osaka Port	840
	38	Outside Osaka Port	660
Hyogo Pref.	39	Offshore of Himeji	210
Kobe City	40	Kobe Port (center)	23,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	6.2
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	120
Okayama Pref.	43	Offshore of Mizushima	200
Hiroshima Pref.	44	Kure Port	7,600
	45	Hiroshima Bay	560
Yamaguchi Pref.	46	Tokuyama Bay	230
	47	Offshore of Ube	150
	48	Offshore of Hagi	50
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	3.3
Kagawa Pref.	50	Takamatsu Port	420
Ehime Pref.	51	Niihama Port	3.5
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	8.1
Kitakyushu City	53	Dokai Bay	9,700
Fukuoka City	54	Hakata Bay	130
Saga Pref.	55	Imari Bay	340
Nagasaki Pref.	56	Omura Bay	250
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.3
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	tr(0.4)
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.0
	60	Riv. Gotanda (Ichikikushikino City)	1.2
Okinawa Pref.	61	Naha Port	8,700

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[1-7-3] 2,3,3',4,4',5,5'-Heptachlorobiphenyl (#189) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 44/61 (Missing value : 0)

Detection Frequency (sample) : 44/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	2.5
Median	2.5
Maximum	220
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(0.4)
	2	Tomakomai Port	2.5
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	1.9
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	1.7
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	6.7
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	1.0
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	9.8
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	9.2
	14	Mouth of Riv. Sumida (Minato Ward)	39
Yokohama City	15	Yokohama Port	75
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	32
	17	Keihin Canal, Port of Kawasaki	87
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(0.4)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	1.5
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	3.8
Shizuoka Pref.	24	Shimizu Port	3.7
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	5.5
	27	Nagoya Port	4.0
Mie Pref.	28	Yokkaichi Port	14
	29	Toba Port	34
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	5.8
	31	Lake Biwa (center, offshore of Karasaki)	8.0
Kyoto Pref.	32	Miyazu Port	1.3
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.0
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	7.2
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	140
	36	Mouth of Riv. Yodo (Osaka City)	55
	37	Osaka Port	22
	38	Outside Osaka Port	17
Hyogo Pref.	39	Offshore of Himeji	5.2
Kobe City	40	Kobe Port (center)	220
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	2.2
Okayama Pref.	43	Offshore of Mizushima	1.9
Hiroshima Pref.	44	Kure Port	85
	45	Hiroshima Bay	8.6
Yamaguchi Pref.	46	Tokuyama Bay	3.1
	47	Offshore of Ube	2.0
	48	Offshore of Hagi	tr(0.7)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	8.3
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	150
Fukuoka City	54	Hakata Bay	2.3
Saga Pref.	55	Imari Bay	5.0
Nagasaki Pref.	56	Omura Bay	4.3
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[1-8] Octachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 54/61 (Missing value : 0)

Detection Frequency (sample) : 54/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.0

	Aggregated value
Geometric mean	53
Median	100
Maximum	18,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	5.3
	2	Tomakomai Port	180
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	83
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	2.2
Akita Pref.	6	Lake Hachiro	25
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	5.6
Fukushima Pref.	8	Onahama Port	350
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	22
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.9)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	470
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	1.8
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	220
	14	Mouth of Riv. Sumida (Minato Ward)	1,100
Yokohama City	15	Yokohama Port	3,600
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	270
	17	Keihin Canal, Port of Kawasaki	6,400
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(0.4)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	7.9
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	42
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	91
Shizuoka Pref.	24	Shimizu Port	190
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	250
	27	Nagoya Port	160
Mie Pref.	28	Yokkaichi Port	640
	29	Toba Port	3,000
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	110
	31	Lake Biwa (center, offshore of Karasaki)	90
Kyoto Pref.	32	Miyazu Port	50
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	12
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	230
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	6,200
	36	Mouth of Riv. Yodo (Osaka City)	3,700
	37	Osaka Port	490
	38	Outside Osaka Port	370
Hyogo Pref.	39	Offshore of Himeji	180
Kobe City	40	Kobe Port (center)	18,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	2.7
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	60
Okayama Pref.	43	Offshore of Mizushima	180
Hiroshima Pref.	44	Kure Port	6,400
	45	Hiroshima Bay	580
Yamaguchi Pref.	46	Tokuyama Bay	260
	47	Offshore of Ube	100
	48	Offshore of Hagi	52
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.9)
Kagawa Pref.	50	Takamatsu Port	220
Ehime Pref.	51	Niihama Port	3.8
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	3.9
Kitakyushu City	53	Dokai Bay	15,000
Fukuoka City	54	Hakata Bay	77
Saga Pref.	55	Imari Bay	250
Nagasaki Pref.	56	Omura Bay	260
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(0.9)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	5,600

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-9] Nonachlorobiphenyls/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 51/61 (Missing value : 0)

Detection Frequency (sample) : 51/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	8.6
Median	14
Maximum	1,500
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.8
	2	Tomakomai Port	11
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	14
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	8.5
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	2.8
Fukushima Pref.	8	Onahama Port	62
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	9.1
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	39
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.2)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	43
	14	Mouth of Riv. Sumida (Minato Ward)	170
Yokohama City	15	Yokohama Port	570
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	24
	17	Keihin Canal, Port of Kawasaki	1,100
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	2.6
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	6.1
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(0.2)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	19
Shizuoka Pref.	24	Shimizu Port	14
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	20
	27	Nagoya Port	18
Mie Pref.	28	Yokkaichi Port	80
	29	Toba Port	160
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	29
	31	Lake Biwa (center, offshore of Karasaki)	20
Kyoto Pref.	32	Miyazu Port	6.6
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1.1
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	27
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	730
	36	Mouth of Riv. Yodo (Osaka City)	260
	37	Osaka Port	49
	38	Outside Osaka Port	48
Hyogo Pref.	39	Offshore of Himeji	26
Kobe City	40	Kobe Port (center)	1,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	tr(0.4)
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	14
Okayama Pref.	43	Offshore of Mizushima	13
Hiroshima Pref.	44	Kure Port	630
	45	Hiroshima Bay	51
Yamaguchi Pref.	46	Tokuyama Bay	25
	47	Offshore of Ube	10
	48	Offshore of Hagi	4.7
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	32
Ehime Pref.	51	Niihama Port	3.4
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	0.8
Kitakyushu City	53	Dokai Bay	1,500
Fukuoka City	54	Hakata Bay	10
Saga Pref.	55	Imari Bay	21
Nagasaki Pref.	56	Omura Bay	55
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	440

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-10] Decachlorobiphenyl/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 47/61 (Missing value : 0)

Detection Frequency (sample) : 47/61 (Missing value : 0)

Detection limit : 0.7

Quantification limit : 1.7

	Aggregated value
Geometric mean	9.8
Median	13
Maximum	7,600
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	2.7
	2	Tomakomai Port	4.5
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	46
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	15
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	3.8
Fukushima Pref.	8	Onahama Port	1,200
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	18
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	47
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	62
	14	Mouth of Riv. Sumida (Minato Ward)	220
Yokohama City	15	Yokohama Port	7,600
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	12
	17	Keihin Canal, Port of Kawasaki	530
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	3.3
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	4.8
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	18
Shizuoka Pref.	24	Shimizu Port	7.9
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	6.5
	27	Nagoya Port	9.5
Mie Pref.	28	Yokkaichi Port	32
	29	Toba Port	5.2
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	31
	31	Lake Biwa (center, offshore of Karasaki)	16
Kyoto Pref.	32	Miyazu Port	6.3
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(0.8)
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	16
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	220
	36	Mouth of Riv. Yodo (Osaka City)	91
	37	Osaka Port	27
	38	Outside Osaka Port	28
Hyogo Pref.	39	Offshore of Himeji	13
Kobe City	40	Kobe Port (center)	96
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	16
Okayama Pref.	43	Offshore of Mizushima	4.4
Hiroshima Pref.	44	Kure Port	520
	45	Hiroshima Bay	81
Yamaguchi Pref.	46	Tokuyama Bay	180
	47	Offshore of Ube	14
	48	Offshore of Hagi	1.9
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	35
Ehime Pref.	51	Niihama Port	14
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(0.8)
Kitakyushu City	53	Dokai Bay	1,500
Fukuoka City	54	Hakata Bay	12
Saga Pref.	55	Imari Bay	14
Nagasaki Pref.	56	Omura Bay	74
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	160

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [2] HCB (Hexachlorobenzene) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 0.9

	Aggregated value
Geometric mean	88
Median	85
Maximum	10,000
Minimum	4.5

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	150
	2	Tomakomai Port	120
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	9.1
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	760
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	19
Akita Pref.	6	Lake Hachiro	91
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	110
Fukushima Pref.	8	Onahama Port	10,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	840
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	6.1
Chiba Pref.	11	Coast of Ichihara and Anegasaki	240
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	4.5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	2,100
	14	Mouth of Riv. Sumida (Minato Ward)	1,200
Yokohama City	15	Yokohama Port	600
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	250
	17	Keihin Canal, Port of Kawasaki	2,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	15
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	85
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	110
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	5.3
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	9.2
Nagano Pref.	23	Lake Suwa (center)	740
Shizuoka Pref.	24	Shimizu Port	71
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	31
Aichi Pref.	26	Kinuura Port	54
	27	Nagoya Port	57
Mie Pref.	28	Yokkaichi Port	430
	29	Toba Port	67
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	200
	31	Lake Biwa (center, offshore of Karasaki)	56
Kyoto Pref.	32	Miyazu Port	35
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	27
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	200
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	1,000
	36	Mouth of Riv. Yodo (Osaka City)	230
	37	Osaka Port	290
	38	Outside Osaka Port	210
Hyogo Pref.	39	Offshore of Himeji	61
Kobe City	40	Kobe Port (center)	180
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	8.7
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	220
Okayama Pref.	43	Offshore of Mizushima	29
Hiroshima Pref.	44	Kure Port	130
	45	Hiroshima Bay	55
Yamaguchi Pref.	46	Tokuyama Bay	210
	47	Offshore of Ube	50
	48	Offshore of Hagi	14
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	17
Kagawa Pref.	50	Takamatsu Port	130
Ehime Pref.	51	Niihama Port	150
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	34
Kitakyushu City	53	Dokai Bay	4,700
Fukuoka City	54	Hakata Bay	39
Saga Pref.	55	Imari Bay	61
Nagasaki Pref.	56	Omura Bay	42
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	7.9
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	9.8
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	8.9
	60	Riv. Gotanda (Ichikikushikino City)	6.9
Okinawa Pref.	61	Naha Port	99

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [11] HCHs/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : \*1.5

Quantification limit : \*3.8

	Aggregated value
Geometric mean	260
Median	250
Maximum	10,000
Minimum	6.6

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1,200
	2	Tomakomai Port	150
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	20
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	190
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	19
Akita Pref.	6	Lake Hachiro	930
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	210
Fukushima Pref.	8	Onahama Port	1,600
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	150
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	15
Chiba Pref.	11	Coast of Ichihara and Anegasaki	200
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	7.2
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	620
	14	Mouth of Riv. Sumida (Minato Ward)	1,600
Yokohama City	15	Yokohama Port	520
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	160
	17	Keihin Canal, Port of Kawasaki	740
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	58
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	120
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	150
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	16
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	53
Nagano Pref.	23	Lake Suwa (center)	660
Shizuoka Pref.	24	Shimizu Port	150
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	36
Aichi Pref.	26	Kinuura Port	710
	27	Nagoya Port	290
Mie Pref.	28	Yokkaichi Port	1,200
	29	Toba Port	180
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	3,900
	31	Lake Biwa (center, offshore of Karasaki)	700
Kyoto Pref.	32	Miyazu Port	200
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	45
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	1,500
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	4,500
	36	Mouth of Riv. Yodo (Osaka City)	1,900
	37	Osaka Port	2,600
	38	Outside Osaka Port	4,500
Hyogo Pref.	39	Offshore of Himeji	690
Kobe City	40	Kobe Port (center)	1,600
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	25
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	620
Okayama Pref.	43	Offshore of Mizushima	91
Hiroshima Pref.	44	Kure Port	1,200
	45	Hiroshima Bay	630
Yamaguchi Pref.	46	Tokuyama Bay	250
	47	Offshore of Ube	620
	48	Offshore of Hagi	65
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	67
Kagawa Pref.	50	Takamatsu Port	1,100
Ehime Pref.	51	Niihama Port	7.3
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	130
Kitakyushu City	53	Dokai Bay	10,000
Fukuoka City	54	Hakata Bay	710
Saga Pref.	55	Imari Bay	1,200
Nagasaki Pref.	56	Omura Bay	780
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	6.6
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	460
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	17
	60	Riv. Gotanda (Ichikikushikino City)	40
Okinawa Pref.	61	Naha Port	210

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) \* : Indicates the sum value of the Quantification [Detection] limits of each isomers.

[11-1]  $\alpha$ -HCH/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.1

	Aggregated value
Geometric mean	67
Median	83
Maximum	2,600
Minimum	1.3

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	340
	2	Tomakomai Port	56
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	8.5
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	56
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	2.0
Akita Pref.	6	Lake Hachiro	110
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	55
Fukushima Pref.	8	Onahama Port	530
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	56
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.8
Chiba Pref.	11	Coast of Ichihara and Anegasaki	72
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	1.8
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	200
	14	Mouth of Riv. Sumida (Minato Ward)	520
Yokohama City	15	Yokohama Port	220
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	43
	17	Keihin Canal, Port of Kawasaki	280
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	11
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	30
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	51
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	4.1
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	6.5
Nagano Pref.	23	Lake Suwa (center)	170
Shizuoka Pref.	24	Shimizu Port	52
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	12
Aichi Pref.	26	Kinuura Port	260
	27	Nagoya Port	110
Mie Pref.	28	Yokkaichi Port	520
	29	Toba Port	35
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	240
	31	Lake Biwa (center, offshore of Karasaki)	130
Kyoto Pref.	32	Miyazu Port	69
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	7.8
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	360
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	1,700
	36	Mouth of Riv. Yodo (Osaka City)	800
	37	Osaka Port	330
	38	Outside Osaka Port	210
Hyogo Pref.	39	Offshore of Himeji	180
Kobe City	40	Kobe Port (center)	540
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	5.0
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	200
Okayama Pref.	43	Offshore of Mizushima	31
Hiroshima Pref.	44	Kure Port	450
	45	Hiroshima Bay	250
Yamaguchi Pref.	46	Tokuyama Bay	110
	47	Offshore of Ube	210
	48	Offshore of Hagi	22
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	20
Kagawa Pref.	50	Takamatsu Port	300
Ehime Pref.	51	Niihama Port	1.7
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	41
Kitakyushu City	53	Dokai Bay	2,600
Fukuoka City	54	Hakata Bay	260
Saga Pref.	55	Imari Bay	340
Nagasaki Pref.	56	Omura Bay	260
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	1.3
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	83
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	3.1
	60	Riv. Gotanda (Ichikikushikino City)	7.1
Okinawa Pref.	61	Naha Port	58

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[11-2]  $\beta$ -HCH/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.5

Quantification limit : 1.2

	Aggregated value
Geometric mean	130
Median	110
Maximum	4,100
Minimum	4.0

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	680
	2	Tomakomai Port	59
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	6.3
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	100
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	15
Akita Pref.	6	Lake Hachiro	680
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	110
Fukushima Pref.	8	Onahama Port	670
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	62
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	9.6
Chiba Pref.	11	Coast of Ichihara and Anegasaki	87
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	4.1
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	260
	14	Mouth of Riv. Sumida (Minato Ward)	570
Yokohama City	15	Yokohama Port	180
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	72
	17	Keihin Canal, Port of Kawasaki	300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	35
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	63
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	73
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	8.8
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	37
Nagano Pref.	23	Lake Suwa (center)	390
Shizuoka Pref.	24	Shimizu Port	71
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	17
Aichi Pref.	26	Kinuura Port	270
	27	Nagoya Port	110
Mie Pref.	28	Yokkaichi Port	370
	29	Toba Port	110
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	3,500
	31	Lake Biwa (center, offshore of Karasaki)	520
Kyoto Pref.	32	Miyazu Port	97
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	28
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	930
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	2,000
	36	Mouth of Riv. Yodo (Osaka City)	560
	37	Osaka Port	2,100
	38	Outside Osaka Port	4,100
Hyogo Pref.	39	Offshore of Himeji	340
Kobe City	40	Kobe Port (center)	810
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	15
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	260
Okayama Pref.	43	Offshore of Mizushima	46
Hiroshima Pref.	44	Kure Port	460
	45	Hiroshima Bay	270
Yamaguchi Pref.	46	Tokuyama Bay	98
	47	Offshore of Ube	300
	48	Offshore of Hagi	33
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	36
Kagawa Pref.	50	Takamatsu Port	580
Ehime Pref.	51	Niihama Port	4.8
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	65
Kitakyushu City	53	Dokai Bay	3,000
Fukuoka City	54	Hakata Bay	310
Saga Pref.	55	Imari Bay	630
Nagasaki Pref.	56	Omura Bay	400
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	4.0
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	310
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	11
	60	Riv. Gotanda (Ichikikushikino City)	26
Okinawa Pref.	61	Naha Port	92

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[11-3]  $\gamma$ -HCH (synonym:Lindane) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 1.0

	Aggregated value
Geometric mean	23
Median	27
Maximum	2,100
Minimum	tr(0.6)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	71
	2	Tomakomai Port	19
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	2.5
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	18
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	1.7
Akita Pref.	6	Lake Hachiro	24
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	18
Fukushima Pref.	8	Onahama Port	160
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	14
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.1
Chiba Pref.	11	Coast of Ichihara and Anegasaki	23
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(0.7)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	72
	14	Mouth of Riv. Sumida (Minato Ward)	310
Yokohama City	15	Yokohama Port	65
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	27
	17	Keihin Canal, Port of Kawasaki	85
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	4.7
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	11
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	14
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	2.2
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	7.1
Nagano Pref.	23	Lake Suwa (center)	33
Shizuoka Pref.	24	Shimizu Port	14
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	4.6
Aichi Pref.	26	Kinuura Port	69
	27	Nagoya Port	33
Mie Pref.	28	Yokkaichi Port	150
	29	Toba Port	31
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	70
	31	Lake Biwa (center, offshore of Karasaki)	15
Kyoto Pref.	32	Miyazu Port	18
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4.1
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	46
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	440
	36	Mouth of Riv. Yodo (Osaka City)	340
	37	Osaka Port	74
	38	Outside Osaka Port	65
Hyogo Pref.	39	Offshore of Himeji	49
Kobe City	40	Kobe Port (center)	140
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	1.8
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	78
Okayama Pref.	43	Offshore of Mizushima	6.7
Hiroshima Pref.	44	Kure Port	160
	45	Hiroshima Bay	62
Yamaguchi Pref.	46	Tokuyama Bay	26
	47	Offshore of Ube	46
	48	Offshore of Hagi	4.9
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	5.5
Kagawa Pref.	50	Takamatsu Port	63
Ehime Pref.	51	Niihama Port	tr(0.6)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	10
Kitakyushu City	53	Dokai Bay	2,100
Fukuoka City	54	Hakata Bay	63
Saga Pref.	55	Imari Bay	88
Nagasaki Pref.	56	Omura Bay	59
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(0.8)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	35
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.5
	60	Riv. Gotanda (Ichikikushikino City)	3.7
Okinawa Pref.	61	Naha Port	52

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.



[11-4]  $\delta$ -HCH/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	22
Median	23
Maximum	2,500
Minimum	tr(0.2)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	110
	2	Tomakomai Port	14
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	2.6
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	16
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	0.7
Akita Pref.	6	Lake Hachiro	120
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	23
Fukushima Pref.	8	Onahama Port	200
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	21
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	0.8
Chiba Pref.	11	Coast of Ichihara and Anegasaki	20
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	0.6
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	93
	14	Mouth of Riv. Sumida (Minato Ward)	170
Yokohama City	15	Yokohama Port	53
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	16
	17	Keihin Canal, Port of Kawasaki	75
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	7.8
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	16
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	16
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	1.1
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	2.4
Nagano Pref.	23	Lake Suwa (center)	68
Shizuoka Pref.	24	Shimizu Port	9.7
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	2.6
Aichi Pref.	26	Kinuuura Port	110
	27	Nagoya Port	37
Mie Pref.	28	Yokkaichi Port	170
	29	Toba Port	8.2
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	130
	31	Lake Biwa (center, offshore of Karasaki)	37
Kyoto Pref.	32	Miyazu Port	11
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	5.5
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	140
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	380
	36	Mouth of Riv. Yodo (Osaka City)	190
	37	Osaka Port	94
	38	Outside Osaka Port	78
Hyogo Pref.	39	Offshore of Himeji	120
Kobe City	40	Kobe Port (center)	140
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3.1
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	84
Okayama Pref.	43	Offshore of Mizushima	7.1
Hiroshima Pref.	44	Kure Port	100
	45	Hiroshima Bay	51
Yamaguchi Pref.	46	Tokuyama Bay	20
	47	Offshore of Ube	59
	48	Offshore of Hagi	4.7
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	5.8
Kagawa Pref.	50	Takamatsu Port	150
Ehime Pref.	51	Niihama Port	tr(0.2)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	13
Kitakyushu City	53	Dokai Bay	2,500
Fukuoka City	54	Hakata Bay	76
Saga Pref.	55	Imari Bay	110
Nagasaki Pref.	56	Omura Bay	60
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	0.5
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	29
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.3
	60	Riv. Gotanda (Ichikikushikino City)	3.1
Okinawa Pref.	61	Naha Port	12

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[14] Polybromodiphenyl ethers (Br<sub>4</sub> - Br<sub>10</sub>) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : \*13

Quantification limit : \*30

	Aggregated value
Geometric mean	4,900
Median	6,800
Maximum	600,000
Minimum	tr(17)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	2,000
	2	Tomakomai Port	2,900
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	35
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	6,800
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	68
Akita Pref.	6	Lake Hachiro	1,800
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1,200
Fukushima Pref.	8	Onahama Port	30,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	30,000
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	47
Chiba Pref.	11	Coast of Ichihara and Anegasaki	28,000
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	780
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	210,000
	14	Mouth of Riv. Sumida (Minato Ward)	480,000
Yokohama City	15	Yokohama Port	34,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	9,100
	17	Keihin Canal, Port of Kawasaki	59,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	170
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1,500
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	150,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	58
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	720
Nagano Pref.	23	Lake Suwa (center)	10,000
Shizuoka Pref.	24	Shimizu Port	2,000
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	120
Aichi Pref.	26	Kinuura Port	13,000
	27	Nagoya Port	220,000
Mie Pref.	28	Yokkaichi Port	72,000
	29	Toba Port	3,900
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	16,000
	31	Lake Biwa (center, offshore of Karasaki)	6,700
Kyoto Pref.	32	Miyazu Port	850
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	600
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	39,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	550,000
	36	Mouth of Riv. Yodo (Osaka City)	30,000
	37	Osaka Port	76,000
	38	Outside Osaka Port	100,000
Hyogo Pref.	39	Offshore of Himeji	8,400
Kobe City	40	Kobe Port (center)	22,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	620
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	59,000
Okayama Pref.	43	Offshore of Mizushima	1,400
Hiroshima Pref.	44	Kure Port	47,000
	45	Hiroshima Bay	62,000
Yamaguchi Pref.	46	Tokuyama Bay	600,000
	47	Offshore of Ube	8,300
	48	Offshore of Hagi	1,100
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(17)
Kagawa Pref.	50	Takamatsu Port	62,000
Ehime Pref.	51	Niihama Port	72
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	450
Kitakyushu City	53	Dokai Bay	130,000
Fukuoka City	54	Hakata Bay	7,500
Saga Pref.	55	Imari Bay	3,600
Nagasaki Pref.	56	Omura Bay	1,600
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	900
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	130
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	330
	60	Riv. Gotanda (Ichikikushikino City)	89
Okinawa Pref.	61	Naha Port	45,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [14-1] Tetrabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 58/61 (Missing value : 0)

Detection Frequency (sample) : 58/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	15
Median	14
Maximum	710
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	16
	2	Tomakomai Port	210
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(2)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	6
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(2)
Akita Pref.	6	Lake Hachiro	12
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	5
Fukushima Pref.	8	Onahama Port	230
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	160
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	39
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	7
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	94
	14	Mouth of Riv. Sumida (Minato Ward)	140
Yokohama City	15	Yokohama Port	50
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	48
	17	Keihin Canal, Port of Kawasaki	710
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(3)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	14
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	10
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(3)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(4)
Nagano Pref.	23	Lake Suwa (center)	27
Shizuoka Pref.	24	Shimizu Port	11
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(3)
Aichi Pref.	26	Kinuura Port	18
	27	Nagoya Port	22
Mie Pref.	28	Yokkaichi Port	16
	29	Toba Port	5
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	120
	31	Lake Biwa (center, offshore of Karasaki)	43
Kyoto Pref.	32	Miyazu Port	tr(3)
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(4)
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	110
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	180
	36	Mouth of Riv. Yodo (Osaka City)	28
	37	Osaka Port	170
	38	Outside Osaka Port	490
Hyogo Pref.	39	Offshore of Himeji	11
Kobe City	40	Kobe Port (center)	25
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	5
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	14
Okayama Pref.	43	Offshore of Mizushima	6
Hiroshima Pref.	44	Kure Port	26
	45	Hiroshima Bay	14
Yamaguchi Pref.	46	Tokuyama Bay	33
	47	Offshore of Ube	9
	48	Offshore of Hagi	tr(2)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(3)
Kagawa Pref.	50	Takamatsu Port	55
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(3)
Kitakyushu City	53	Dokai Bay	110
Fukuoka City	54	Hakata Bay	18
Saga Pref.	55	Imari Bay	12
Nagasaki Pref.	56	Omura Bay	6
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(2)
	60	Riv. Gotanda (Ichikikushikino City)	tr(3)
Okinawa Pref.	61	Naha Port	27

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-1-1] 2,2',4,4'-Tetrabromodiphenyl ether (#47) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 50/61 (Missing value : 0)

Detection Frequency (sample) : 50/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	9
Median	9
Maximum	420
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	11
	2	Tomakomai Port	120
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	tr(3)
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	7
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	tr(3)
Fukushima Pref.	8	Onahama Port	140
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	95
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	21
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	55
	14	Mouth of Riv. Sumida (Minato Ward)	80
Yokohama City	15	Yokohama Port	30
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	33
	17	Keihin Canal, Port of Kawasaki	420
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	9
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	5
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(2)
Nagano Pref.	23	Lake Suwa (center)	15
Shizuoka Pref.	24	Shimizu Port	6
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	10
	27	Nagoya Port	11
Mie Pref.	28	Yokkaichi Port	10
	29	Toba Port	tr(3)
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	54
	31	Lake Biwa (center, offshore of Karasaki)	22
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	60
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	110
	36	Mouth of Riv. Yodo (Osaka City)	20
	37	Osaka Port	110
	38	Outside Osaka Port	360
Hyogo Pref.	39	Offshore of Himeji	7
Kobe City	40	Kobe Port (center)	16
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	5
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	11
Okayama Pref.	43	Offshore of Mizushima	6
Hiroshima Pref.	44	Kure Port	19
	45	Hiroshima Bay	8
Yamaguchi Pref.	46	Tokuyama Bay	21
	47	Offshore of Ube	6
	48	Offshore of Hagi	tr(2)
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(3)
Kagawa Pref.	50	Takamatsu Port	41
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(3)
Kitakyushu City	53	Dokai Bay	57
Fukuoka City	54	Hakata Bay	14
Saga Pref.	55	Imari Bay	9
Nagasaki Pref.	56	Omura Bay	6
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(2)
	60	Riv. Gotanda (Ichikikushikino City)	tr(3)
Okinawa Pref.	61	Naha Port	22

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-2] Pentabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 52/61 (Missing value : 0)

Detection Frequency (sample) : 52/61 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	9
Median	9
Maximum	740
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	9
	2	Tomakomai Port	100
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	5
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	10
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	3
Fukushima Pref.	8	Onahama Port	220
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	110
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	3
Chiba Pref.	11	Coast of Ichihara and Anegasaki	34
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	70
	14	Mouth of Riv. Sumida (Minato Ward)	110
Yokohama City	15	Yokohama Port	49
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	51
	17	Keihin Canal, Port of Kawasaki	740
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(1)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	9
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(1)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(1)
Nagano Pref.	23	Lake Suwa (center)	27
Shizuoka Pref.	24	Shimizu Port	5
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	16
	27	Nagoya Port	25
Mie Pref.	28	Yokkaichi Port	22
	29	Toba Port	4
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	99
	31	Lake Biwa (center, offshore of Karasaki)	32
Kyoto Pref.	32	Miyazu Port	tr(1)
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(1)
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	100
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	180
	36	Mouth of Riv. Yodo (Osaka City)	25
	37	Osaka Port	150
	38	Outside Osaka Port	270
Hyogo Pref.	39	Offshore of Himeji	12
Kobe City	40	Kobe Port (center)	9
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	10
Okayama Pref.	43	Offshore of Mizushima	tr(1)
Hiroshima Pref.	44	Kure Port	25
	45	Hiroshima Bay	19
Yamaguchi Pref.	46	Tokuyama Bay	42
	47	Offshore of Ube	6
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	57
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	67
Fukuoka City	54	Hakata Bay	6
Saga Pref.	55	Imari Bay	4
Nagasaki Pref.	56	Omura Bay	tr(1)
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(1)
	60	Riv. Gotanda (Ichikikushikino City)	tr(1)
Okinawa Pref.	61	Naha Port	38

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-2-1] 2,2',4,4',5-Pentabromodiphenyl ether (#99) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 52/61 (Missing value : 0)

Detection Frequency (sample) : 52/61 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	6
Median	5
Maximum	440
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	7
	2	Tomakomai Port	55
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	4
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	3
Fukushima Pref.	8	Onahama Port	130
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	69
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	3
Chiba Pref.	11	Coast of Ichihara and Anegasaki	18
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	4
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	33
	14	Mouth of Riv. Sumida (Minato Ward)	74
Yokohama City	15	Yokohama Port	26
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	32
	17	Keihin Canal, Port of Kawasaki	440
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(1)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	6
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	5
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(1)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(1)
Nagano Pref.	23	Lake Suwa (center)	10
Shizuoka Pref.	24	Shimizu Port	4
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	10
	27	Nagoya Port	7
Mie Pref.	28	Yokkaichi Port	12
	29	Toba Port	tr(2)
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	52
	31	Lake Biwa (center, offshore of Karasaki)	17
Kyoto Pref.	32	Miyazu Port	tr(1)
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(1)
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	48
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	86
	36	Mouth of Riv. Yodo (Osaka City)	16
	37	Osaka Port	74
	38	Outside Osaka Port	160
Hyogo Pref.	39	Offshore of Himeji	4
Kobe City	40	Kobe Port (center)	5
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	6
Okayama Pref.	43	Offshore of Mizushima	tr(1)
Hiroshima Pref.	44	Kure Port	16
	45	Hiroshima Bay	3
Yamaguchi Pref.	46	Tokuyama Bay	6
	47	Offshore of Ube	tr(2)
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	33
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	31
Fukuoka City	54	Hakata Bay	5
Saga Pref.	55	Imari Bay	3
Nagasaki Pref.	56	Omura Bay	tr(1)
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(1)
	60	Riv. Gotanda (Ichikikushikino City)	tr(1)
Okinawa Pref.	61	Naha Port	29

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-3] Hexabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 41/61 (Missing value : 0)

Detection Frequency (sample) : 41/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	14
Median	17
Maximum	690
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	24
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	17
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	11
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	140
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	44
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	94
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	260
	14	Mouth of Riv. Sumida (Minato Ward)	610
Yokohama City	15	Yokohama Port	87
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	24
	17	Keihin Canal, Port of Kawasaki	300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(2)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	81
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	54
Shizuoka Pref.	24	Shimizu Port	8
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	16
	27	Nagoya Port	290
Mie Pref.	28	Yokkaichi Port	170
	29	Toba Port	11
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	230
	31	Lake Biwa (center, offshore of Karasaki)	29
Kyoto Pref.	32	Miyazu Port	tr(3)
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	180
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	480
	36	Mouth of Riv. Yodo (Osaka City)	44
	37	Osaka Port	230
	38	Outside Osaka Port	180
Hyogo Pref.	39	Offshore of Himeji	27
Kobe City	40	Kobe Port (center)	50
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	8
Okayama Pref.	43	Offshore of Mizushima	13
Hiroshima Pref.	44	Kure Port	45
	45	Hiroshima Bay	230
Yamaguchi Pref.	46	Tokuyama Bay	690
	47	Offshore of Ube	38
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	110
Ehime Pref.	51	Niihama Port	tr(3)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	140
Fukuoka City	54	Hakata Bay	22
Saga Pref.	55	Imari Bay	17
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-3-1] 2,2',4,4',5,5'-Hexabromodiphenyl ether (#153) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 35/61 (Missing value : 0)

Detection Frequency (sample) : 35/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	4
Median	tr(3)
Maximum	150
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	13
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	tr(2)
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	48
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	13
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	10
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	24
	14	Mouth of Riv. Sumida (Minato Ward)	150
Yokohama City	15	Yokohama Port	13
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	8
	17	Keihin Canal, Port of Kawasaki	150
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	4
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	7
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	tr(3)
	27	Nagoya Port	4
Mie Pref.	28	Yokkaichi Port	66
	29	Toba Port	nd
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	140
	31	Lake Biwa (center, offshore of Karasaki)	6
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	59
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	82
	36	Mouth of Riv. Yodo (Osaka City)	14
	37	Osaka Port	34
	38	Outside Osaka Port	73
Hyogo Pref.	39	Offshore of Himeji	5
Kobe City	40	Kobe Port (center)	4
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(3)
Okayama Pref.	43	Offshore of Mizushima	13
Hiroshima Pref.	44	Kure Port	10
	45	Hiroshima Bay	tr(3)
Yamaguchi Pref.	46	Tokuyama Bay	9
	47	Offshore of Ube	6
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	17
Ehime Pref.	51	Niihama Port	tr(3)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	14
Fukuoka City	54	Hakata Bay	tr(3)
Saga Pref.	55	Imari Bay	nd
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[14-3-2] 2,2',4,4',5,6'-Hexabromodiphenyl ether (#154) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 38/61 (Missing value : 0)

Detection Frequency (sample) : 38/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	tr(4)
Median	tr(3)
Maximum	55
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	5
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	tr(3)
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	30
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	6
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	6
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	24
	14	Mouth of Riv. Sumida (Minato Ward)	39
Yokohama City	15	Yokohama Port	10
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	6
	17	Keihin Canal, Port of Kawasaki	45
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(2)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	6
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	12
Shizuoka Pref.	24	Shimizu Port	tr(3)
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	tr(2)
	27	Nagoya Port	13
Mie Pref.	28	Yokkaichi Port	9
	29	Toba Port	tr(2)
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	25
	31	Lake Biwa (center, offshore of Karasaki)	6
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	23
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	27
	36	Mouth of Riv. Yodo (Osaka City)	6
	37	Osaka Port	26
	38	Outside Osaka Port	34
Hyogo Pref.	39	Offshore of Himeji	tr(3)
Kobe City	40	Kobe Port (center)	5
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	tr(3)
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	6
	45	Hiroshima Bay	25
Yamaguchi Pref.	46	Tokuyama Bay	55
	47	Offshore of Ube	9
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	11
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	16
Fukuoka City	54	Hakata Bay	tr(3)
Saga Pref.	55	Imari Bay	tr(3)
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-4] Heptabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 39/61 (Missing value : 0)

Detection Frequency (sample) : 39/61 (Missing value : 0)

Detection limit : 3

Quantification limit : 6

	Aggregated value
Geometric mean	15
Median	11
Maximum	1,400
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(5)
	2	Tomakomai Port	10
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	11
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	16
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	110
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	18
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	100
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	320
	14	Mouth of Riv. Sumida (Minato Ward)	1,400
Yokohama City	15	Yokohama Port	140
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	11
	17	Keihin Canal, Port of Kawasaki	78
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	7
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	75
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	84
Shizuoka Pref.	24	Shimizu Port	tr(4)
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
	26	Kinuura Port	15
Aichi Pref.	27	Nagoya Port	410
	28	Yokkaichi Port	450
Mie Pref.	29	Toba Port	nd
	30	Lake Biwa (center, offshore of Minamihira)	120
Shiga Pref.	31	Lake Biwa (center, offshore of Karasaki)	42
	32	Miyazu Port	nd
Kyoto Pref.	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Kyoto City	34	Mouth of Riv. Yamato (Sakai City)	190
Osaka Pref.	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	580
	36	Mouth of Riv. Yodo (Osaka City)	72
	37	Osaka Port	290
	38	Outside Osaka Port	190
Hyogo Pref.	39	Offshore of Himeji	40
Kobe City	40	Kobe Port (center)	64
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	11
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	77
	45	Hiroshima Bay	200
Yamaguchi Pref.	46	Tokuyama Bay	430
	47	Offshore of Ube	45
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	41
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	150
Fukuoka City	54	Hakata Bay	7
Saga Pref.	55	Imari Bay	8
Nagasaki Pref.	56	Omura Bay	8
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	81

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-4-1] 2,2',3,3',4,5',6-Heptabromodiphenyl ether (#175) /sediment (pg/g-dry) and

[14-4-2] 2,2',3,4,4',5',6-Heptabromodiphenyl ether (#183) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 38/61 (Missing value : 0)

Detection Frequency (sample) : 38/61 (Missing value : 0)

Detection limit : 3

Quantification limit : 6

	Aggregated value
Geometric mean	11
Median	8
Maximum	1,200
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(5)
	2	Tomakomai Port	tr(5)
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	tr(4)
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	8
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	84
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	8
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	64
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	160
	14	Mouth of Riv. Sumida (Minato Ward)	1,200
Yokohama City	15	Yokohama Port	84
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	11
	17	Keihin Canal, Port of Kawasaki	78
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(4)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	27
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	35
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	8
	27	Nagoya Port	140
Mie Pref.	28	Yokkaichi Port	370
	29	Toba Port	nd
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	69
	31	Lake Biwa (center, offshore of Karasaki)	27
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	98
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	290
	36	Mouth of Riv. Yodo (Osaka City)	36
	37	Osaka Port	120
	38	Outside Osaka Port	110
Hyogo Pref.	39	Offshore of Himeji	40
Kobe City	40	Kobe Port (center)	43
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	6
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	30
	45	Hiroshima Bay	56
Yamaguchi Pref.	46	Tokuyama Bay	130
	47	Offshore of Ube	45
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	41
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	57
Fukuoka City	54	Hakata Bay	7
Saga Pref.	55	Imari Bay	8
Nagasaki Pref.	56	Omura Bay	8
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	31

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-5] Octabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 50/61 (Missing value : 0)

Detection Frequency (sample) : 50/61 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	33
Median	47
Maximum	2,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	20
	2	Tomakomai Port	26
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	32
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	39
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	12
Fukushima Pref.	8	Onahama Port	340
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	91
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	220
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	980
	14	Mouth of Riv. Sumida (Minato Ward)	1,500
Yokohama City	15	Yokohama Port	240
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	68
	17	Keihin Canal, Port of Kawasaki	340
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	25
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	350
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(1)
Nagano Pref.	23	Lake Suwa (center)	220
Shizuoka Pref.	24	Shimizu Port	19
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	79
	27	Nagoya Port	1,400
Mie Pref.	28	Yokkaichi Port	770
	29	Toba Port	47
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	260
	31	Lake Biwa (center, offshore of Karasaki)	84
Kyoto Pref.	32	Miyazu Port	7
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	4
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	510
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	2,000
	36	Mouth of Riv. Yodo (Osaka City)	99
	37	Osaka Port	1,500
	38	Outside Osaka Port	540
Hyogo Pref.	39	Offshore of Himeji	140
Kobe City	40	Kobe Port (center)	110
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	6
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	95
Okayama Pref.	43	Offshore of Mizushima	11
Hiroshima Pref.	44	Kure Port	270
	45	Hiroshima Bay	610
Yamaguchi Pref.	46	Tokuyama Bay	1,500
	47	Offshore of Ube	50
	48	Offshore of Hagi	8
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	360
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	5
Kitakyushu City	53	Dokai Bay	550
Fukuoka City	54	Hakata Bay	47
Saga Pref.	55	Imari Bay	32
Nagasaki Pref.	56	Omura Bay	9
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(1)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	280

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-6] Nonabromodiphenyl ethers/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 59/61 (Missing value : 0)

Detection Frequency (sample) : 59/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	310
Median	420
Maximum	40,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	140
	2	Tomakomai Port	190
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	380
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(3)
Akita Pref.	6	Lake Hachiro	180
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	70
Fukushima Pref.	8	Onahama Port	2,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	2,100
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	5
Chiba Pref.	11	Coast of Ichihara and Anegasaki	1,400
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	36
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	11,000
	14	Mouth of Riv. Sumida (Minato Ward)	8,200
Yokohama City	15	Yokohama Port	2,100
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	490
	17	Keihin Canal, Port of Kawasaki	3,100
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	13
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	130
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	10,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(2)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	48
Nagano Pref.	23	Lake Suwa (center)	840
Shizuoka Pref.	24	Shimizu Port	140
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	8
Aichi Pref.	26	Kinuura Port	1,000
	27	Nagoya Port	14,000
Mie Pref.	28	Yokkaichi Port	2,000
	29	Toba Port	390
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,000
	31	Lake Biwa (center, offshore of Karasaki)	460
Kyoto Pref.	32	Miyazu Port	72
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	54
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3,400
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	21,000
	36	Mouth of Riv. Yodo (Osaka City)	1,700
	37	Osaka Port	11,000
	38	Outside Osaka Port	3,600
Hyogo Pref.	39	Offshore of Himeji	1,000
Kobe City	40	Kobe Port (center)	1,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	64
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	3,300
Okayama Pref.	43	Offshore of Mizushima	130
Hiroshima Pref.	44	Kure Port	2,400
	45	Hiroshima Bay	6,300
Yamaguchi Pref.	46	Tokuyama Bay	40,000
	47	Offshore of Ube	600
	48	Offshore of Hagi	100
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	2,100
Ehime Pref.	51	Niihama Port	9
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	53
Kitakyushu City	53	Dokai Bay	5,000
Fukuoka City	54	Hakata Bay	420
Saga Pref.	55	Imari Bay	240
Nagasaki Pref.	56	Omura Bay	43
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	58
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	9
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	11
	60	Riv. Gotanda (Ichikikushikino City)	9
Okinawa Pref.	61	Naha Port	2,500

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-7] Decabromodiphenyl ether/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	4,400
Median	6,300
Maximum	560,000
Minimum	14

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1,800
	2	Tomakomai Port	2,300
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	33
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	6,300
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	63
Akita Pref.	6	Lake Hachiro	1,500
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1,100
Fukushima Pref.	8	Onahama Port	27,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	27,000
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	36
Chiba Pref.	11	Coast of Ichihara and Anegasaki	26,000
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	730
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	200,000
	14	Mouth of Riv. Sumida (Minato Ward)	470,000
Yokohama City	15	Yokohama Port	31,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	8,400
	17	Keihin Canal, Port of Kawasaki	54,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	150
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1,300
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	140,000
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	52
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	670
Nagano Pref.	23	Lake Suwa (center)	8,800
Shizuoka Pref.	24	Shimizu Port	1,800
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	110
Aichi Pref.	26	Kinuura Port	12,000
	27	Nagoya Port	200,000
Mie Pref.	28	Yokkaichi Port	69,000
	29	Toba Port	3,400
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	14,000
	31	Lake Biwa (center, offshore of Karasaki)	6,000
Kyoto Pref.	32	Miyazu Port	760
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	540
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	35,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	530,000
	36	Mouth of Riv. Yodo (Osaka City)	28,000
	37	Osaka Port	63,000
	38	Outside Osaka Port	97,000
Hyogo Pref.	39	Offshore of Himeji	7,200
Kobe City	40	Kobe Port (center)	21,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	540
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	56,000
Okayama Pref.	43	Offshore of Mizushima	1,200
Hiroshima Pref.	44	Kure Port	44,000
	45	Hiroshima Bay	55,000
Yamaguchi Pref.	46	Tokuyama Bay	560,000
	47	Offshore of Ube	7,600
	48	Offshore of Hagi	970
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	14
Kagawa Pref.	50	Takamatsu Port	59,000
Ehime Pref.	51	Niihama Port	60
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	390
Kitakyushu City	53	Dokai Bay	120,000
Fukuoka City	54	Hakata Bay	7,000
Saga Pref.	55	Imari Bay	3,300
Nagasaki Pref.	56	Omura Bay	1,500
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	840
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	120
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	320
	60	Riv. Gotanda (Ichikikushikino City)	76
Okinawa Pref.	61	Naha Port	42,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [15] Perfluorooctane sulfonic acid (PFOS) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 60/61 (Missing value : 0)

Detection Frequency (sample) : 60/61 (Missing value : 0)

Detection limit : 4

Quantification limit : 9

	Aggregated value
Geometric mean	44
Median	46
Maximum	460
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	64
	2	Tomakomai Port	95
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(7)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	42
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	33
Akita Pref.	6	Lake Hachiro	42
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	39
Fukushima Pref.	8	Onahama Port	25
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	61
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	40
Chiba Pref.	11	Coast of Ichihara and Anegasaki	240
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(8)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	190
	14	Mouth of Riv. Sumida (Minato Ward)	460
Yokohama City	15	Yokohama Port	170
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	130
	17	Keihin Canal, Port of Kawasaki	170
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(5)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	24
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	24
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	9
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	22
Nagano Pref.	23	Lake Suwa (center)	130
Shizuoka Pref.	24	Shimizu Port	12
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	19
Aichi Pref.	26	Kinuura Port	98
	27	Nagoya Port	69
Mie Pref.	28	Yokkaichi Port	55
	29	Toba Port	45
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	270
	31	Lake Biwa (center, offshore of Karasaki)	170
Kyoto Pref.	32	Miyazu Port	15
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	47
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	160
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	120
	36	Mouth of Riv. Yodo (Osaka City)	54
	37	Osaka Port	190
	38	Outside Osaka Port	300
Hyogo Pref.	39	Offshore of Himeji	120
Kobe City	40	Kobe Port (center)	92
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	46
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	39
Okayama Pref.	43	Offshore of Mizushima	46
Hiroshima Pref.	44	Kure Port	79
	45	Hiroshima Bay	58
Yamaguchi Pref.	46	Tokuyama Bay	110
	47	Offshore of Ube	26
	48	Offshore of Hagi	11
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(5)
Kagawa Pref.	50	Takamatsu Port	54
Ehime Pref.	51	Niihama Port	15
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	46
Fukuoka City	54	Hakata Bay	72
Saga Pref.	55	Imari Bay	18
Nagasaki Pref.	56	Omura Bay	170
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(6)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	13
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	9
	60	Riv. Gotanda (Ichikikushikino City)	18
Okinawa Pref.	61	Naha Port	92

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [16] Perfluorooctanoic acid (PFOA) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	21
Median	22
Maximum	190
Minimum	tr(3)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	20
	2	Tomakomai Port	11
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	8
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	21
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	25
Akita Pref.	6	Lake Hachiro	26
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	8
Fukushima Pref.	8	Onahama Port	20
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	10
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	9
Chiba Pref.	11	Coast of Ichihara and Anegasaki	57
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	8
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	36
	14	Mouth of Riv. Sumida (Minato Ward)	32
Yokohama City	15	Yokohama Port	23
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	16
	17	Keihin Canal, Port of Kawasaki	62
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(4)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	5
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	21
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	16
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	34
Nagano Pref.	23	Lake Suwa (center)	17
Shizuoka Pref.	24	Shimizu Port	23
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	16
Aichi Pref.	26	Kinuura Port	8
	27	Nagoya Port	10
Mie Pref.	28	Yokkaichi Port	12
	29	Toba Port	20
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	89
	31	Lake Biwa (center, offshore of Karasaki)	71
Kyoto Pref.	32	Miyazu Port	50
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	34
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	54
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	160
	36	Mouth of Riv. Yodo (Osaka City)	45
	37	Osaka Port	56
	38	Outside Osaka Port	120
Hyogo Pref.	39	Offshore of Himeji	41
Kobe City	40	Kobe Port (center)	34
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	40
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	22
Okayama Pref.	43	Offshore of Mizushima	19
Hiroshima Pref.	44	Kure Port	10
	45	Hiroshima Bay	14
Yamaguchi Pref.	46	Tokuyama Bay	27
	47	Offshore of Ube	9
	48	Offshore of Hagi	36
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	5
Kagawa Pref.	50	Takamatsu Port	23
Ehime Pref.	51	Niihama Port	27
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	tr(3)
Kitakyushu City	53	Dokai Bay	40
Fukuoka City	54	Hakata Bay	36
Saga Pref.	55	Imari Bay	55
Nagasaki Pref.	56	Omura Bay	190
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	5
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	27
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(4)
	60	Riv. Gotanda (Ichikikushikino City)	9
Okinawa Pref.	61	Naha Port	12

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.



## [17] Pentachlorobenzene/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.4

Quantification limit : 0.9

	Aggregated value
Geometric mean	29
Median	27
Maximum	3,300
Minimum	1.2

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	110
	2	Tomakomai Port	92
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	5.6
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	63
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	1.7
Akita Pref.	6	Lake Hachiro	29
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	55
Fukushima Pref.	8	Onahama Port	3,300
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	300
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.2
Chiba Pref.	11	Coast of Ichihara and Anegasaki	80
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	1.7
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	860
	14	Mouth of Riv. Sumida (Minato Ward)	490
Yokohama City	15	Yokohama Port	120
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	83
	17	Keihin Canal, Port of Kawasaki	790
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	7.3
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	27
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	55
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	4.0
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	2.4
Nagano Pref.	23	Lake Suwa (center)	200
Shizuoka Pref.	24	Shimizu Port	20
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	14
Aichi Pref.	26	Kinuura Port	16
	27	Nagoya Port	26
Mie Pref.	28	Yokkaichi Port	110
	29	Toba Port	29
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	89
	31	Lake Biwa (center, offshore of Karasaki)	13
Kyoto Pref.	32	Miyazu Port	5.7
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	21
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	91
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	250
	36	Mouth of Riv. Yodo (Osaka City)	46
	37	Osaka Port	200
	38	Outside Osaka Port	100
Hyogo Pref.	39	Offshore of Himeji	25
Kobe City	40	Kobe Port (center)	37
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3.0
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	51
Okayama Pref.	43	Offshore of Mizushima	7.8
Hiroshima Pref.	44	Kure Port	34
	45	Hiroshima Bay	18
Yamaguchi Pref.	46	Tokuyama Bay	33
	47	Offshore of Ube	14
	48	Offshore of Hagi	3.7
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	8.2
Kagawa Pref.	50	Takamatsu Port	51
Ehime Pref.	51	Niihama Port	13
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	16
Kitakyushu City	53	Dokai Bay	1,300
Fukuoka City	54	Hakata Bay	14
Saga Pref.	55	Imari Bay	24
Nagasaki Pref.	56	Omura Bay	27
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.3
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	4.8
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.2
	60	Riv. Gotanda (Ichikikushikino City)	1.7
Okinawa Pref.	61	Naha Port	22

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [20] Total Polychlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : \*2.7

Quantification limit : \*7.3

	Aggregated value
Geometric mean	600
Median	720
Maximum	58,000
Minimum	13

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	390
	2	Tomakomai Port	270
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	26
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	550
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	140
Akita Pref.	6	Lake Hachiro	440
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	280
Fukushima Pref.	8	Onahama Port	2,800
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	1,200
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	99
Chiba Pref.	11	Coast of Ichihara and Anegasaki	2,200
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	43
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	3,600
	14	Mouth of Riv. Sumida (Minato Ward)	15,000
Yokohama City	15	Yokohama Port	24,000
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	4,700
	17	Keihin Canal, Port of Kawasaki	58,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	95
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	280
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	830
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	19
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	47
Nagano Pref.	23	Lake Suwa (center)	2,300
Shizuoka Pref.	24	Shimizu Port	530
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	62
Aichi Pref.	26	Kinuura Port	850
	27	Nagoya Port	630
Mie Pref.	28	Yokkaichi Port	2,000
	29	Toba Port	2,300
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,000
	31	Lake Biwa (center, offshore of Karasaki)	520
Kyoto Pref.	32	Miyazu Port	830
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	1,500
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	5,500
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	9,200
	36	Mouth of Riv. Yodo (Osaka City)	1,800
	37	Osaka Port	3,500
	38	Outside Osaka Port	3,100
Hyogo Pref.	39	Offshore of Himeji	620
Kobe City	40	Kobe Port (center)	7,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	140
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,300
Okayama Pref.	43	Offshore of Mizushima	130
Hiroshima Pref.	44	Kure Port	5,800
	45	Hiroshima Bay	980
Yamaguchi Pref.	46	Tokuyama Bay	330
	47	Offshore of Ube	530
	48	Offshore of Hagi	72
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	63
Kagawa Pref.	50	Takamatsu Port	2,300
Ehime Pref.	51	Niihama Port	27
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	96
Kitakyushu City	53	Dokai Bay	12,000
Fukuoka City	54	Hakata Bay	860
Saga Pref.	55	Imari Bay	960
Nagasaki Pref.	56	Omura Bay	720
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	16
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	94
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	13
	60	Riv. Gotanda (Ichikikushikino City)	18
Okinawa Pref.	61	Naha Port	4,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [20-1] Monochlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 57/61 (Missing value : 0)

Detection Frequency (sample) : 57/61 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.3

	Aggregated value
Geometric mean	19
Median	26
Maximum	950
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	41
	2	Tomakomai Port	29
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	7.9
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	9.3
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	5.6
Fukushima Pref.	8	Onahama Port	89
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	41
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(1.1)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	69
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(1.4)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	130
	14	Mouth of Riv. Sumida (Minato Ward)	380
Yokohama City	15	Yokohama Port	900
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	140
	17	Keihin Canal, Port of Kawasaki	950
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	2.5
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	14
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	53
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(1.1)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	24
Shizuoka Pref.	24	Shimizu Port	12
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(2.2)
Aichi Pref.	26	Kinuura Port	22
	27	Nagoya Port	45
Mie Pref.	28	Yokkaichi Port	88
	29	Toba Port	34
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	26
	31	Lake Biwa (center, offshore of Karasaki)	6.0
Kyoto Pref.	32	Miyazu Port	80
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	28
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	52
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	790
	36	Mouth of Riv. Yodo (Osaka City)	190
	37	Osaka Port	97
	38	Outside Osaka Port	88
Hyogo Pref.	39	Offshore of Himeji	16
Kobe City	40	Kobe Port (center)	49
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	35
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	31
Okayama Pref.	43	Offshore of Mizushima	7.7
Hiroshima Pref.	44	Kure Port	51
	45	Hiroshima Bay	18
Yamaguchi Pref.	46	Tokuyama Bay	63
	47	Offshore of Ube	13
	48	Offshore of Hagi	3.3
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	2.8
Kagawa Pref.	50	Takamatsu Port	180
Ehime Pref.	51	Niihama Port	tr(1.4)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	12
Kitakyushu City	53	Dokai Bay	200
Fukuoka City	54	Hakata Bay	13
Saga Pref.	55	Imari Bay	19
Nagasaki Pref.	56	Omura Bay	33
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(1.3)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	tr(1.7)
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	tr(0.9)
Okinawa Pref.	61	Naha Port	320

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-2] Dichlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 56/61 (Missing value : 0)

Detection Frequency (sample) : 56/61 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.5

	Aggregated value
Geometric mean	27
Median	38
Maximum	4,300
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	21
	2	Tomakomai Port	33
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	19
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	tr(0.7)
Akita Pref.	6	Lake Hachiro	26
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	6.2
Fukushima Pref.	8	Onahama Port	160
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	75
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(1.3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	170
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(1.1)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	240
	14	Mouth of Riv. Sumida (Minato Ward)	1,300
Yokohama City	15	Yokohama Port	3,300
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	640
	17	Keihin Canal, Port of Kawasaki	4,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	5.1
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	24
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	49
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	79
Shizuoka Pref.	24	Shimizu Port	18
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	2.0
Aichi Pref.	26	Kinuura Port	43
	27	Nagoya Port	43
Mie Pref.	28	Yokkaichi Port	96
	29	Toba Port	120
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	49
	31	Lake Biwa (center, offshore of Karasaki)	13
Kyoto Pref.	32	Miyazu Port	300
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	64
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	63
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	900
	36	Mouth of Riv. Yodo (Osaka City)	140
	37	Osaka Port	180
	38	Outside Osaka Port	110
Hyogo Pref.	39	Offshore of Himeji	35
Kobe City	40	Kobe Port (center)	190
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	33
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	81
Okayama Pref.	43	Offshore of Mizushima	7.3
Hiroshima Pref.	44	Kure Port	190
	45	Hiroshima Bay	41
Yamaguchi Pref.	46	Tokuyama Bay	37
	47	Offshore of Ube	23
	48	Offshore of Hagi	3.3
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	3.1
Kagawa Pref.	50	Takamatsu Port	160
Ehime Pref.	51	Niihama Port	tr(1.3)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	6.4
Kitakyushu City	53	Dokai Bay	290
Fukuoka City	54	Hakata Bay	26
Saga Pref.	55	Imari Bay	38
Nagasaki Pref.	56	Omura Bay	54
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	tr(1.4)
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	tr(0.7)
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	410

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-3] Trichlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	130
Median	190
Maximum	17,000
Minimum	1.2

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	71
	2	Tomakomai Port	54
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	5.1
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	120
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	12
Akita Pref.	6	Lake Hachiro	110
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	41
Fukushima Pref.	8	Onahama Port	700
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	170
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	25
Chiba Pref.	11	Coast of Ichihara and Anegasaki	670
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	5.8
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	890
	14	Mouth of Riv. Sumida (Minato Ward)	4,600
Yokohama City	15	Yokohama Port	8,500
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	1,300
	17	Keihin Canal, Port of Kawasaki	17,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	22
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	42
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	200
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	2.9
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	9.5
Nagano Pref.	23	Lake Suwa (center)	600
Shizuoka Pref.	24	Shimizu Port	110
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	17
Aichi Pref.	26	Kinuura Port	280
	27	Nagoya Port	200
Mie Pref.	28	Yokkaichi Port	340
	29	Toba Port	1,100
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	220
	31	Lake Biwa (center, offshore of Karasaki)	110
Kyoto Pref.	32	Miyazu Port	190
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	490
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3,500
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	1,900
	36	Mouth of Riv. Yodo (Osaka City)	370
	37	Osaka Port	1,000
	38	Outside Osaka Port	630
Hyogo Pref.	39	Offshore of Himeji	170
Kobe City	40	Kobe Port (center)	2,100
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	7.7
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	280
Okayama Pref.	43	Offshore of Mizushima	33
Hiroshima Pref.	44	Kure Port	1,700
	45	Hiroshima Bay	240
Yamaguchi Pref.	46	Tokuyama Bay	59
	47	Offshore of Ube	130
	48	Offshore of Hagi	18
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	16
Kagawa Pref.	50	Takamatsu Port	510
Ehime Pref.	51	Niihama Port	5.1
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	17
Kitakyushu City	53	Dokai Bay	2,300
Fukuoka City	54	Hakata Bay	220
Saga Pref.	55	Imari Bay	260
Nagasaki Pref.	56	Omura Bay	200
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.2
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	7.9
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	1.2
	60	Riv. Gotanda (Ichikikushikino City)	1.7
Okinawa Pref.	61	Naha Port	950

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

[20-4] Tetrachlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	230
Median	240
Maximum	26,000
Minimum	7.1

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	160
	2	Tomakomai Port	91
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	15
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	200
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	74
Akita Pref.	6	Lake Hachiro	180
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	140
Fukushima Pref.	8	Onahama Port	980
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	360
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	50
Chiba Pref.	11	Coast of Ichihara and Anegasaki	730
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	19
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	1,300
	14	Mouth of Riv. Sumida (Minato Ward)	5,400
Yokohama City	15	Yokohama Port	5,100
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	1,400
	17	Keihin Canal, Port of Kawasaki	26,000
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	44
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	120
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	330
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	11
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	23
Nagano Pref.	23	Lake Suwa (center)	1,000
Shizuoka Pref.	24	Shimizu Port	220
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	31
Aichi Pref.	26	Kinuura Port	320
	27	Nagoya Port	210
Mie Pref.	28	Yokkaichi Port	550
	29	Toba Port	770
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	400
	31	Lake Biwa (center, offshore of Karasaki)	210
Kyoto Pref.	32	Miyazu Port	170
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	630
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	1,200
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	3,200
	36	Mouth of Riv. Yodo (Osaka City)	620
	37	Osaka Port	1,400
	38	Outside Osaka Port	1,300
Hyogo Pref.	39	Offshore of Himeji	240
Kobe City	40	Kobe Port (center)	3,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	40
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	640
Okayama Pref.	43	Offshore of Mizushima	49
Hiroshima Pref.	44	Kure Port	2,400
	45	Hiroshima Bay	430
Yamaguchi Pref.	46	Tokuyama Bay	86
	47	Offshore of Ube	230
	48	Offshore of Hagi	32
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	31
Kagawa Pref.	50	Takamatsu Port	770
Ehime Pref.	51	Niihama Port	9.1
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	40
Kitakyushu City	53	Dokai Bay	7,000
Fukuoka City	54	Hakata Bay	370
Saga Pref.	55	Imari Bay	350
Nagasaki Pref.	56	Omura Bay	240
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	7.1
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	58
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	7.9
	60	Riv. Gotanda (Ichikikushikino City)	9.6
Okinawa Pref.	61	Naha Port	1,400

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [20-5] Pentachlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	110
Median	130
Maximum	6,800
Minimum	3.3

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	79
	2	Tomakomai Port	44
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	5.9
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	130
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	47
Akita Pref.	6	Lake Hachiro	82
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	76
Fukushima Pref.	8	Onahama Port	510
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	250
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	19
Chiba Pref.	11	Coast of Ichihara and Anegasaki	400
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	13
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	680
	14	Mouth of Riv. Sumida (Minato Ward)	2,400
Yokohama City	15	Yokohama Port	3,300
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	850
	17	Keihin Canal, Port of Kawasaki	6,800
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	19
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	58
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	160
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	3.3
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	13
Nagano Pref.	23	Lake Suwa (center)	490
Shizuoka Pref.	24	Shimizu Port	130
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	8.7
Aichi Pref.	26	Kinuura Port	150
	27	Nagoya Port	97
Mie Pref.	28	Yokkaichi Port	390
	29	Toba Port	200
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	240
	31	Lake Biwa (center, offshore of Karasaki)	130
Kyoto Pref.	32	Miyazu Port	70
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	220
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	610
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	1,800
	36	Mouth of Riv. Yodo (Osaka City)	330
	37	Osaka Port	680
	38	Outside Osaka Port	760
Hyogo Pref.	39	Offshore of Himeji	120
Kobe City	40	Kobe Port (center)	1,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	22
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	250
Okayama Pref.	43	Offshore of Mizushima	22
Hiroshima Pref.	44	Kure Port	1,100
	45	Hiroshima Bay	200
Yamaguchi Pref.	46	Tokuyama Bay	50
	47	Offshore of Ube	96
	48	Offshore of Hagi	12
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	9.5
Kagawa Pref.	50	Takamatsu Port	580
Ehime Pref.	51	Niihama Port	5.2
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	18
Kitakyushu City	53	Dokai Bay	1,600
Fukuoka City	54	Hakata Bay	180
Saga Pref.	55	Imari Bay	240
Nagasaki Pref.	56	Omura Bay	160
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	4.0
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	26
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	3.8
	60	Riv. Gotanda (Ichikikushikino City)	5.2
Okinawa Pref.	61	Naha Port	800

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [20-6] Hexachlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 56/61 (Missing value : 0)

Detection Frequency (sample) : 56/61 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.9

	Aggregated value
Geometric mean	22
Median	34
Maximum	2,300
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	10
	2	Tomakomai Port	11
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(0.3)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	53
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	7.6
Akita Pref.	6	Lake Hachiro	21
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	11
Fukushima Pref.	8	Onahama Port	210
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	210
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	2.1
Chiba Pref.	11	Coast of Ichihara and Anegasaki	140
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	2.6
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	250
	14	Mouth of Riv. Sumida (Minato Ward)	680
Yokohama City	15	Yokohama Port	2,100
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	240
	17	Keihin Canal, Port of Kawasaki	2,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	2.3
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	14
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	29
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	1.7
Nagano Pref.	23	Lake Suwa (center)	84
Shizuoka Pref.	24	Shimizu Port	37
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	1.0
Aichi Pref.	26	Kinuura Port	35
	27	Nagoya Port	32
Mie Pref.	28	Yokkaichi Port	420
	29	Toba Port	41
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	66
	31	Lake Biwa (center, offshore of Karasaki)	38
Kyoto Pref.	32	Miyazu Port	20
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	34
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	100
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	490
	36	Mouth of Riv. Yodo (Osaka City)	120
	37	Osaka Port	130
	38	Outside Osaka Port	150
Hyogo Pref.	39	Offshore of Himeji	28
Kobe City	40	Kobe Port (center)	360
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	3.3
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	39
Okayama Pref.	43	Offshore of Mizushima	6.6
Hiroshima Pref.	44	Kure Port	280
	45	Hiroshima Bay	42
Yamaguchi Pref.	46	Tokuyama Bay	24
	47	Offshore of Ube	26
	48	Offshore of Hagi	2.5
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.7)
Kagawa Pref.	50	Takamatsu Port	70
Ehime Pref.	51	Niihama Port	1.7
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	2.3
Kitakyushu City	53	Dokai Bay	740
Fukuoka City	54	Hakata Bay	38
Saga Pref.	55	Imari Bay	40
Nagasaki Pref.	56	Omura Bay	23
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	140

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [20-7] Heptachlorinated naphthalenes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 57/61 (Missing value : 0)

Detection Frequency (sample) : 57/61 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.4

	Aggregated value
Geometric mean	4.4
Median	5.2
Maximum	610
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.9
	2	Tomakomai Port	3.4
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	13
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	0.6
Akita Pref.	6	Lake Hachiro	5.9
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	2.0
Fukushima Pref.	8	Onahama Port	97
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	89
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(0.3)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	38
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	0.5
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	69
	14	Mouth of Riv. Sumida (Minato Ward)	110
Yokohama City	15	Yokohama Port	460
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	59
	17	Keihin Canal, Port of Kawasaki	610
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	0.4
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	3.9
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	4.1
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	0.4
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	tr(0.1)
Nagano Pref.	23	Lake Suwa (center)	11
Shizuoka Pref.	24	Shimizu Port	5.2
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	tr(0.1)
Aichi Pref.	26	Kinuura Port	3.0
	27	Nagoya Port	3.5
Mie Pref.	28	Yokkaichi Port	130
	29	Toba Port	4.1
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	18
	31	Lake Biwa (center, offshore of Karasaki)	6.9
Kyoto Pref.	32	Miyazu Port	2.7
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	2.2
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	14
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	64
	36	Mouth of Riv. Yodo (Osaka City)	25
	37	Osaka Port	20
	38	Outside Osaka Port	22
Hyogo Pref.	39	Offshore of Himeji	6.3
Kobe City	40	Kobe Port (center)	59
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	0.5
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	4.3
Okayama Pref.	43	Offshore of Mizushima	2.0
Hiroshima Pref.	44	Kure Port	64
	45	Hiroshima Bay	7.3
Yamaguchi Pref.	46	Tokuyama Bay	8.3
	47	Offshore of Ube	7.2
	48	Offshore of Hagi	0.6
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	tr(0.3)
Kagawa Pref.	50	Takamatsu Port	7.3
Ehime Pref.	51	Niihama Port	1.7
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	0.4
Kitakyushu City	53	Dokai Bay	250
Fukuoka City	54	Hakata Bay	8.0
Saga Pref.	55	Imari Bay	7.4
Nagasaki Pref.	56	Omura Bay	4.0
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	tr(0.1)
Okinawa Pref.	61	Naha Port	10

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-8] Octachlorinated naphthalene/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 43/61 (Missing value : 0)

Detection Frequency (sample) : 43/61 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	1.4
Median	1.3
Maximum	180
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1.3
	2	Tomakomai Port	0.8
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	2.4
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	2.4
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	1.3
Fukushima Pref.	8	Onahama Port	66
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	11
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	24
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	9.1
	14	Mouth of Riv. Sumida (Minato Ward)	22
Yokohama City	15	Yokohama Port	180
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	23
	17	Keihin Canal, Port of Kawasaki	130
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	1.8
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	1.3
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	2.8
Shizuoka Pref.	24	Shimizu Port	1.1
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	1.1
Mie Pref.	28	Yokkaichi Port	27
	29	Toba Port	1.3
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	3.3
	31	Lake Biwa (center, offshore of Karasaki)	1.4
Kyoto Pref.	32	Miyazu Port	1.0
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	tr(0.4)
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	3.5
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	13
	36	Mouth of Riv. Yodo (Osaka City)	4.9
	37	Osaka Port	4.6
	38	Outside Osaka Port	6.2
Hyogo Pref.	39	Offshore of Himeji	1.5
Kobe City	40	Kobe Port (center)	12
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	0.8
Okayama Pref.	43	Offshore of Mizushima	1.0
Hiroshima Pref.	44	Kure Port	24
	45	Hiroshima Bay	2.1
Yamaguchi Pref.	46	Tokuyama Bay	3.0
	47	Offshore of Ube	4.7
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	2.3
Ehime Pref.	51	Niihama Port	1.2
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	34
Fukuoka City	54	Hakata Bay	1.9
Saga Pref.	55	Imari Bay	1.2
Nagasaki Pref.	56	Omura Bay	1.8
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [22] Pentachlorophenol and its salts and esters/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : \*3

Quantification limit : \*8

	Aggregated value
Geometric mean	300
Median	390
Maximum	6,300
Minimum	tr(7)

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1,700
	2	Tomakomai Port	180
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	100
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	390
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	34
Akita Pref.	6	Lake Hachiro	750
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	470
Fukushima Pref.	8	Onahama Port	1,600
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	590
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	61
Chiba Pref.	11	Coast of Ichihara and Anegasaki	1,300
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	18
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	2,800
	14	Mouth of Riv. Sumida (Minato Ward)	2,400
Yokohama City	15	Yokohama Port	990
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	310
	17	Keihin Canal, Port of Kawasaki	1,500
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	94
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	190
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	310
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	tr(7)
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	40
Nagano Pref.	23	Lake Suwa (center)	1,400
Shizuoka Pref.	24	Shimizu Port	190
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	96
Aichi Pref.	26	Kinuura Port	1,600
	27	Nagoya Port	810
Mie Pref.	28	Yokkaichi Port	3,000
	29	Toba Port	650
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,500
	31	Lake Biwa (center, offshore of Karasaki)	390
Kyoto Pref.	32	Miyazu Port	170
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	140
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	700
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	6,300
	36	Mouth of Riv. Yodo (Osaka City)	1,400
	37	Osaka Port	2,300
	38	Outside Osaka Port	1,600
Hyogo Pref.	39	Offshore of Himeji	350
Kobe City	40	Kobe Port (center)	1,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	50
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,200
Okayama Pref.	43	Offshore of Mizushima	94
Hiroshima Pref.	44	Kure Port	490
	45	Hiroshima Bay	650
Yamaguchi Pref.	46	Tokuyama Bay	100
	47	Offshore of Ube	88
	48	Offshore of Hagi	71
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	25
Kagawa Pref.	50	Takamatsu Port	560
Ehime Pref.	51	Niihama Port	11
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	400
Kitakyushu City	53	Dokai Bay	1,100
Fukuoka City	54	Hakata Bay	160
Saga Pref.	55	Imari Bay	700
Nagasaki Pref.	56	Omura Bay	130
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	9
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	120
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	10
	60	Riv. Gotanda (Ichikikushikino City)	21
Okinawa Pref.	61	Naha Port	2,400

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each target chemicals.

## [22-1] Pentachlorophenol/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 61/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	260
Median	380
Maximum	6,200
Minimum	7

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	1,600
	2	Tomakomai Port	170
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	86
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	390
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	20
Akita Pref.	6	Lake Hachiro	740
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	430
Fukushima Pref.	8	Onahama Port	1,500
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	570
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	41
Chiba Pref.	11	Coast of Ichihara and Anegasaki	1,300
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	17
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	2,700
	14	Mouth of Riv. Sumida (Minato Ward)	2,300
Yokohama City	15	Yokohama Port	970
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	270
	17	Keihin Canal, Port of Kawasaki	1,500
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	80
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	180
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	310
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	7
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	37
Nagano Pref.	23	Lake Suwa (center)	1,400
Shizuoka Pref.	24	Shimizu Port	180
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	37
Aichi Pref.	26	Kinuura Port	1,600
	27	Nagoya Port	800
Mie Pref.	28	Yokkaichi Port	3,000
	29	Toba Port	640
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	1,500
	31	Lake Biwa (center, offshore of Karasaki)	380
Kyoto Pref.	32	Miyazu Port	160
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	80
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	670
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	6,200
	36	Mouth of Riv. Yodo (Osaka City)	1,400
	37	Osaka Port	2,200
	38	Outside Osaka Port	1,600
Hyogo Pref.	39	Offshore of Himeji	340
Kobe City	40	Kobe Port (center)	1,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	45
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	1,100
Okayama Pref.	43	Offshore of Mizushima	88
Hiroshima Pref.	44	Kure Port	470
	45	Hiroshima Bay	640
Yamaguchi Pref.	46	Tokuyama Bay	99
	47	Offshore of Ube	79
	48	Offshore of Hagi	51
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	17
Kagawa Pref.	50	Takamatsu Port	540
Ehime Pref.	51	Niihama Port	10
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	340
Kitakyushu City	53	Dokai Bay	1,100
Fukuoka City	54	Hakata Bay	150
Saga Pref.	55	Imari Bay	680
Nagasaki Pref.	56	Omura Bay	120
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	7
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	33
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	9
	60	Riv. Gotanda (Ichikikushikino City)	20
Okinawa Pref.	61	Naha Port	2,400

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

## [22-2] Pentachloroanisole/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 60/61 (Missing value : 0)

Detection Frequency (sample) : 60/61 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.1

	Aggregated value
Geometric mean	14
Median	15
Maximum	140
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	140
	2	Tomakomai Port	13
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	16
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	4.3
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	14
Akita Pref.	6	Lake Hachiro	13
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	42
Fukushima Pref.	8	Onahama Port	62
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	18
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	20
Chiba Pref.	11	Coast of Ichihara and Anegasaki	28
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	tr(1.2)
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	57
	14	Mouth of Riv. Sumida (Minato Ward)	53
Yokohama City	15	Yokohama Port	16
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	41
	17	Keihin Canal, Port of Kawasaki	31
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	14
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	11
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	4.9
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	2.6
Nagano Pref.	23	Lake Suwa (center)	22
Shizuoka Pref.	24	Shimizu Port	8.7
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	59
Aichi Pref.	26	Kinuura Port	17
	27	Nagoya Port	12
Mie Pref.	28	Yokkaichi Port	35
	29	Toba Port	7.9
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	44
	31	Lake Biwa (center, offshore of Karasaki)	5.5
Kyoto Pref.	32	Miyazu Port	6.2
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	63
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	29
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	51
	36	Mouth of Riv. Yodo (Osaka City)	15
	37	Osaka Port	92
	38	Outside Osaka Port	44
Hyogo Pref.	39	Offshore of Himeji	13
Kobe City	40	Kobe Port (center)	13
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	5.0
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	110
Okayama Pref.	43	Offshore of Mizushima	6.1
Hiroshima Pref.	44	Kure Port	21
	45	Hiroshima Bay	7.7
Yamaguchi Pref.	46	Tokuyama Bay	2.1
	47	Offshore of Ube	8.5
	48	Offshore of Hagi	20
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	7.6
Kagawa Pref.	50	Takamatsu Port	15
Ehime Pref.	51	Niihama Port	tr(1.0)
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	57
Kitakyushu City	53	Dokai Bay	25
Fukuoka City	54	Hakata Bay	6.5
Saga Pref.	55	Imari Bay	15
Nagasaki Pref.	56	Omura Bay	7.6
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	2.1
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	87
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	tr(0.9)
	60	Riv. Gotanda (Ichikikushikino City)	tr(1.0)
Okinawa Pref.	61	Naha Port	13

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23] Short-chain chlorinated paraffins/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 23/61 (Missing value : 0)

Detection Frequency (sample) : 23/61 (Missing value : 0)

Detection limit : \*4,000

Quantification limit : \*8,000

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	150,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	tr(6,600)
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	11,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	10,000
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	nd
	14	Mouth of Riv. Sumida (Minato Ward)	26,000
Yokohama City	15	Yokohama Port	tr(7,800)
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	tr(7,500)
	17	Keihin Canal, Port of Kawasaki	9,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	9,400
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	nd
Mie Pref.	28	Yokkaichi Port	tr(7,400)
	29	Toba Port	9,000
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	nd
	31	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	19,000
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	150,000
	36	Mouth of Riv. Yodo (Osaka City)	nd
	37	Osaka Port	12,000
	38	Outside Osaka Port	36,000
Hyogo Pref.	39	Offshore of Himeji	tr(5,100)
Kobe City	40	Kobe Port (center)	13,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	tr(7,700)
	45	Hiroshima Bay	tr(5,200)
Yamaguchi Pref.	46	Tokuyama Bay	11,000
	47	Offshore of Ube	nd
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	11,000
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	tr(6,800)
Fukuoka City	54	Hakata Bay	nd
Saga Pref.	55	Imari Bay	tr(7,900)
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	22,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [23-1] Chlorinated decanes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 8/61 (Missing value : 0)

Detection Frequency (sample) : 8/61 (Missing value : 0)

Detection limit : 1,000

Quantification limit : 2,000

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	2,600
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	nd
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	nd
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	tr(1,400)
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	nd
	14	Mouth of Riv. Sumida (Minato Ward)	tr(1,100)
Yokohama City	15	Yokohama Port	nd
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	nd
	17	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	tr(1,100)
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	nd
Mie Pref.	28	Yokkaichi Port	tr(1,500)
	29	Toba Port	nd
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	nd
	31	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	2,300
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	2,500
	36	Mouth of Riv. Yodo (Osaka City)	nd
	37	Osaka Port	nd
	38	Outside Osaka Port	2,600
Hyogo Pref.	39	Offshore of Himeji	nd
Kobe City	40	Kobe Port (center)	nd
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	nd
	45	Hiroshima Bay	nd
Yamaguchi Pref.	46	Tokuyama Bay	nd
	47	Offshore of Ube	nd
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	nd
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	nd
Fukuoka City	54	Hakata Bay	nd
Saga Pref.	55	Imari Bay	nd
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	tr(1,100)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-2] Chlorinated undecanes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 22/61 (Missing value : 0)

Detection Frequency (sample) : 22/61 (Missing value : 0)

Detection limit : 1,000

Quantification limit : 2,000

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	5,900
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	nd
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	tr(1,500)
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	tr(1,800)
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	tr(1,000)
	14	Mouth of Riv. Sumida (Minato Ward)	4,600
Yokohama City	15	Yokohama Port	tr(1,700)
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	tr(1,300)
	17	Keihin Canal, Port of Kawasaki	2,200
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	2,400
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	nd
Mie Pref.	28	Yokkaichi Port	tr(1,200)
	29	Toba Port	nd
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	nd
	31	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	4,800
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	5,900
	36	Mouth of Riv. Yodo (Osaka City)	nd
	37	Osaka Port	3,300
	38	Outside Osaka Port	4,900
Hyogo Pref.	39	Offshore of Himeji	tr(1,600)
Kobe City	40	Kobe Port (center)	3,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	2,000
	45	Hiroshima Bay	tr(1,100)
Yamaguchi Pref.	46	Tokuyama Bay	tr(1,200)
	47	Offshore of Ube	nd
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	2,200
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	2,800
Fukuoka City	54	Hakata Bay	nd
Saga Pref.	55	Imari Bay	tr(1,100)
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	tr(1,300)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [23-3] Chlorinated dodecanes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 27/61 (Missing value : 0)

Detection Frequency (sample) : 27/61 (Missing value : 0)

Detection limit : 1,000

Quantification limit : 2,000

	Aggregated value
Geometric mean	tr(1,100)
Median	nd
Maximum	83,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	2,500
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	2,700
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	3,400
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	nd
	14	Mouth of Riv. Sumida (Minato Ward)	5,600
Yokohama City	15	Yokohama Port	tr(1,200)
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	tr(1,900)
	17	Keihin Canal, Port of Kawasaki	2,300
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	tr(1,800)
Shizuoka Pref.	24	Shimizu Port	tr(1,500)
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	tr(1,300)
Mie Pref.	28	Yokkaichi Port	2,200
	29	Toba Port	3,100
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	nd
	31	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	4,700
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	83,000
	36	Mouth of Riv. Yodo (Osaka City)	nd
	37	Osaka Port	4,100
	38	Outside Osaka Port	12,000
Hyogo Pref.	39	Offshore of Himeji	tr(1,700)
Kobe City	40	Kobe Port (center)	4,200
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	tr(1,100)
Hiroshima Pref.	44	Kure Port	tr(1,000)
	45	Hiroshima Bay	tr(1,800)
Yamaguchi Pref.	46	Tokuyama Bay	5,100
	47	Offshore of Ube	tr(1,300)
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	3,300
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	nd
Fukuoka City	54	Hakata Bay	tr(1,100)
Saga Pref.	55	Imari Bay	3,000
Nagasaki Pref.	56	Omura Bay	nd
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	6,100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-4] Chlorinated tridecanes/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 39/61 (Missing value : 0)

Detection Frequency (sample) : 39/61 (Missing value : 0)

Detection limit : 1,000

Quantification limit : 2,000

	Aggregated value
Geometric mean	tr(1,700)
Median	tr(1,700)
Maximum	60,000
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	tr(1,700)
	2	Tomakomai Port	4,100
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	tr(1,700)
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	tr(1,600)
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	tr(1,400)
Fukushima Pref.	8	Onahama Port	7,000
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	nd
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	3,500
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	2,900
	14	Mouth of Riv. Sumida (Minato Ward)	15,000
Yokohama City	15	Yokohama Port	4,900
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	4,300
	17	Keihin Canal, Port of Kawasaki	4,800
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	tr(1,800)
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	4,100
Shizuoka Pref.	24	Shimizu Port	2,400
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	tr(1,500)
	27	Nagoya Port	2,000
Mie Pref.	28	Yokkaichi Port	2,500
	29	Toba Port	5,900
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	tr(1,500)
	31	Lake Biwa (center, offshore of Karasaki)	tr(1,300)
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	7,100
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	60,000
	36	Mouth of Riv. Yodo (Osaka City)	tr(1,900)
	37	Osaka Port	5,100
	38	Outside Osaka Port	16,000
Hyogo Pref.	39	Offshore of Himeji	tr(1,800)
Kobe City	40	Kobe Port (center)	6,000
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	tr(1,400)
Hiroshima Pref.	44	Kure Port	4,700
	45	Hiroshima Bay	2,300
Yamaguchi Pref.	46	Tokuyama Bay	4,900
	47	Offshore of Ube	tr(1,100)
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	5,800
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	4,000
Fukuoka City	54	Hakata Bay	tr(1,200)
Saga Pref.	55	Imari Bay	3,800
Nagasaki Pref.	56	Omura Bay	2,500
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	13,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[24] Dicofol/sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 40/61 (Missing value : 0)

Detection Frequency (sample) : 40/61 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	4
Median	4
Maximum	84
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	84
	2	Tomakomai Port	nd
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	8
Fukushima Pref.	8	Onahama Port	7
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	6
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	tr(2)
Chiba Pref.	11	Coast of Ichihara and Anegasaki	tr(3)
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	35
	14	Mouth of Riv. Sumida (Minato Ward)	25
Yokohama City	15	Yokohama Port	12
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	5
	17	Keihin Canal, Port of Kawasaki	4
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	tr(2)
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	tr(3)
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	tr(3)
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	37
Shizuoka Pref.	24	Shimizu Port	55
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	6
Mie Pref.	28	Yokkaichi Port	11
	29	Toba Port	tr(3)
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	6
	31	Lake Biwa (center, offshore of Karasaki)	nd
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	10
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	67
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	27
	36	Mouth of Riv. Yodo (Osaka City)	4
	37	Osaka Port	25
	38	Outside Osaka Port	31
Hyogo Pref.	39	Offshore of Himeji	nd
Kobe City	40	Kobe Port (center)	tr(3)
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	11
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	47
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	6
	45	Hiroshima Bay	6
Yamaguchi Pref.	46	Tokuyama Bay	nd
	47	Offshore of Ube	nd
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	39
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	5
Fukuoka City	54	Hakata Bay	4
Saga Pref.	55	Imari Bay	4
Nagasaki Pref.	56	Omura Bay	5
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	4
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	tr(3)
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	8
Okinawa Pref.	61	Naha Port	11

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [25] Perfluorohexane sulfonic acid (PFHxS) /sediment (pg/g-dry)

Monitored year : 2019

Detection Frequency (site) : 10/61 (Missing value : 0)

Detection Frequency (sample) : 10/61 (Missing value : 0)

Detection limit : 5

Quantification limit : 13

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	15
Minimum	nd

Local communities	No.	Monitored sites	Measured value
Hokkaido	1	Ishikarikakokyo Bridge, Mouth of Riv. Ishikari (Ishikari City)	nd
	2	Tomakomai Port	nd
Iwate Pref.	3	Toyosawa Bridge, Riv. Toyosawa (Hanamaki City)	nd
Miyagi Pref.	4	Sendai Bay (Matsushima Bay)	nd
Sendai City	5	Hirose-ohashi Bridge, Riv. Hirose (Sendai City)	nd
Akita Pref.	6	Lake Hachiro	nd
Yamagata Pref.	7	Mouth of Riv. Mogami (Sakata City)	nd
Fukushima Pref.	8	Onahama Port	nd
Ibaraki Pref.	9	Tonekamome-ohashi Bridge, Mouth of Riv. Tone (Kamisu City)	tr(6)
Tochigi Pref.	10	Tagawa Kyubun Area Head Works (Utsunomiya City)	nd
Chiba Pref.	11	Coast of Ichihara and Anegasaki	15
Chiba City	12	Mouth of Riv. Hanami (Chiba City)	nd
Tokyo Met.	13	Mouth of Riv. Arakawa (Koto Ward)	nd
	14	Mouth of Riv. Sumida (Minato Ward)	tr(9)
Yokohama City	15	Yokohama Port	nd
Kawasaki City	16	Mouth of Riv. Tama (Kawasaki City)	nd
	17	Keihin Canal, Port of Kawasaki	nd
Niigata Pref.	18	Lower Riv. Shinano (Niigata City)	nd
Toyama Pref.	19	Hagiura-bashi Bridge, Mouth of Riv. Jintsu (Toyama City)	nd
Ishikawa Pref.	20	Mouth of Riv. Sai (Kanazawa City)	nd
Fukui Pref.	21	Mishima-bashi Bridge, Riv. Shono (Tsuruga City)	nd
Yamanashi Pref.	22	Senshu-bashi Bridge, Riv. Arakawa (Kofu City)	nd
Nagano Pref.	23	Lake Suwa (center)	nd
Shizuoka Pref.	24	Shimizu Port	nd
	25	Kaketsuka-bashi Bridge, Riv. Tenryu (Iwata City)	nd
Aichi Pref.	26	Kinuura Port	nd
	27	Nagoya Port	nd
Mie Pref.	28	Yokkaichi Port	nd
	29	Toba Port	nd
Shiga Pref.	30	Lake Biwa (center, offshore of Minamihira)	tr(6)
	31	Lake Biwa (center, offshore of Karasaki)	tr(9)
Kyoto Pref.	32	Miyazu Port	nd
Kyoto City	33	Miyamae-bashi Bridge, Riv. Katsura (Kyoto City)	nd
Osaka Pref.	34	Mouth of Riv. Yamato (Sakai City)	nd
Osaka City	35	Kema-bashi Bridge, Riv. Oh-kawa (Osaka City)	nd
	36	Mouth of Riv. Yodo (Osaka City)	nd
	37	Osaka Port	nd
	38	Outside Osaka Port	nd
Hyogo Pref.	39	Offshore of Himeji	nd
Kobe City	40	Kobe Port (center)	nd
Nara Pref.	41	Taisho-bashi Bridge, Riv. Yamato (Oji Town)	nd
Wakayama Pref.	42	Kinokawa-ohashi Bridge, Mouth of Riv. Kinokawa (Wakayama City)	nd
Okayama Pref.	43	Offshore of Mizushima	nd
Hiroshima Pref.	44	Kure Port	nd
	45	Hiroshima Bay	tr(5)
Yamaguchi Pref.	46	Tokuyama Bay	nd
	47	Offshore of Ube	nd
	48	Offshore of Hagi	nd
Tokushima Pref.	49	Mouth of Riv. Yoshino (Tokushima City)	nd
Kagawa Pref.	50	Takamatsu Port	tr(6)
Ehime Pref.	51	Niihama Port	nd
Kochi Pref.	52	Mouth of Riv. Shimanto (Shimanto City)	nd
Kitakyushu City	53	Dokai Bay	tr(6)
Fukuoka City	54	Hakata Bay	tr(9)
Saga Pref.	55	Imari Bay	nd
Nagasaki Pref.	56	Omura Bay	tr(12)
Oita Pref.	57	Mouth of Riv. Oita (Oita City)	nd
Miyazaki Pref.	58	Mouth of Riv. Oyodo (Miyazaki City)	nd
Kagoshima Pref.	59	Riv. Amori (Kirishima City)	nd
	60	Riv. Gotanda (Ichikikushikino City)	nd
Okinawa Pref.	61	Naha Port	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples)

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1] Total Polychlorinated biphenyls (Total PCBs)/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : ※3.3

Quantification limit : ※12

	Aggregated value
Geometric mean	11,000
Median	12,000
Maximum	190,000
Minimum	350

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	2,200	12,000	---
Median	1,900	12,000	---
Maximum	17,000	160,000	190,000
Minimum	350	1,000	190,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	1,900
	Yokohama City	2	Yokohama Port	Blue mussel	17,000
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	350
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	1,400
	Iwate Pref.	2	Yamada Bay	Greenling	10,000
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	10,000
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	3,500
	Tokyo Met.	5	Tokyo Bay	Sea bass	61,000
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	35,000
	Nagoya City	7	Nagoya Port	Striped mullet	14,000
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	16,000
	Osaka Pref.	9	Osaka Bay	Sea bass	160,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	82,000
	Tottori Pref.	11	Nakaumi	Sea bass	8,100
	Hiroshima City	12	Hiroshima Bay	Sea bass	19,000
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	1,000
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	32,000
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	4,100
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	4,300
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	190,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	3,900,000
				Egg of Great Cormorant (Egg white)	3,800
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	3,800,000
				Egg of Great Cormorant (Egg white)	25,000

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) \*: Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [1-1] Monochlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 16/20 (Missing value : 0)

Detection Frequency (sample) : 16/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	tr(2)
Median	tr(1)
Maximum	21
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	13/16	1/1
Detection Frequency (sample)	2/3	13/16	1/1
Geometric mean	tr(2)	tr(2)	---
Median	tr(1)	tr(2)	---
Maximum	7	21	tr(1)
Minimum	nd	nd	tr(1)

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(1)
	Yokohama City	2	Yokohama Port	Blue mussel	7
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(2)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	3
	Tokyo Met.	5	Tokyo Bay	Sea bass	9
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	3
	Nagoya City	7	Nagoya Port	Striped mullet	12
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(1)
	Osaka Pref.	9	Osaka Bay	Sea bass	21
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	8
	Tottori Pref.	11	Nakaumi	Sea bass	tr(1)
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(2)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(1)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(1)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(1)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	tr(1)
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	tr(2)
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	18
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-2] Dichlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	27
Median	21
Maximum	1,300
Minimum	tr(3)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	26	30	---
Median	34	21	---
Maximum	78	1,300	5
Minimum	7	tr(3)	5

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	34
	Yokohama City	2	Yokohama Port	Blue mussel	78
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	7
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	6
	Iwate Pref.	2	Yamada Bay	Greenling	27
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	15
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	29
	Tokyo Met.	5	Tokyo Bay	Sea bass	290
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	78
	Nagoya City	7	Nagoya Port	Striped mullet	180
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	8
	Osaka Pref.	9	Osaka Bay	Sea bass	1,300
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	210
	Tottori Pref.	11	Nakaumi	Sea bass	14
	Hiroshima City	12	Hiroshima Bay	Sea bass	44
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(3)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	13
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(4)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	7
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	5
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	24
				Egg of Great Cormorant (Egg white)	tr(2)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	660
				Egg of Great Cormorant (Egg white)	tr(3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [1-3] Trichlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	300
Median	250
Maximum	23,000
Minimum	14

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	100	350	---
Median	84	250	---
Maximum	920	23,000	910
Minimum	14	17	910

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	84
	Yokohama City	2	Yokohama Port	Blue mussel	920
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	14
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	48
	Iwate Pref.	2	Yamada Bay	Greenling	240
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	410
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	260
	Tokyo Met.	5	Tokyo Bay	Sea bass	4,700
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	1,800
	Nagoya City	7	Nagoya Port	Striped mullet	1,900
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	200
	Osaka Pref.	9	Osaka Bay	Sea bass	23,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	4,000
	Tottori Pref.	11	Nakaumi	Sea bass	130
	Hiroshima City	12	Hiroshima Bay	Sea bass	460
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	19
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	240
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	29
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	17
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	910
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	82,000
				Egg of Great Cormorant (Egg white)	91
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	1700,000
				Egg of Great Cormorant (Egg white)	3,400

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.



## [1-4] Tetrachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	1,300
Median	1,800
Maximum	50,000
Minimum	44

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	340	1,500	---
Median	220	1,800	---
Maximum	4,100	50,000	5,200
Minimum	44	96	5,200

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	220
	Yokohama City	2	Yokohama Port	Blue mussel	4,100
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	44
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	160
	Iwate Pref.	2	Yamada Bay	Greenling	720
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	1,600
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	720
	Tokyo Met.	5	Tokyo Bay	Sea bass	17,000
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	8,300
	Nagoya City	7	Nagoya Port	Striped mullet	5,300
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	1,900
	Osaka Pref.	9	Osaka Bay	Sea bass	50,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	11,000
	Tottori Pref.	11	Nakaumi	Sea bass	750
	Hiroshima City	12	Hiroshima Bay	Sea bass	2,300
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	96
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	1,900
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	250
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	100
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	5,200
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	290,000
				Egg of Great Cormorant (Egg white)	400
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	4400,000
				Egg of Great Cormorant (Egg white)	5,900

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-4-1] 3,3',4,4'-Tetrachlorobiphenyl (#77) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.7

Quantification limit : 1.9

	Aggregated value
Geometric mean	8.9
Median	9.2
Maximum	180
Minimum	tr(1.2)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	5.6	9.5	---
Median	4.0	9.2	---
Maximum	29	180	12
Minimum	tr(1.5)	tr(1.2)	12

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	4.0
	Yokohama City	2	Yokohama Port	Blue mussel	29
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(1.5)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1.3)
	Iwate Pref.	2	Yamada Bay	Greenling	11
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	5.0
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	4.0
	Tokyo Met.	5	Tokyo Bay	Sea bass	55
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	26
	Nagoya City	7	Nagoya Port	Striped mullet	22
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	33
	Osaka Pref.	9	Osaka Bay	Sea bass	180
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	50
	Tottori Pref.	11	Nakaumi	Sea bass	2.8
	Hiroshima City	12	Hiroshima Bay	Sea bass	12
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1.2)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	7.4
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	3.8
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(1.4)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	12
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	130
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	530
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[1-4-2] 3,4,4',5-Tetrachlorobiphenyl (#81) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 11/20 (Missing value : 0)

Detection Frequency (sample) : 11/20 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.6

	Aggregated value
Geometric mean	tr(0.8)
Median	tr(0.6)
Maximum	10
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	9/16	1/1
Detection Frequency (sample)	1/3	9/16	1/1
Geometric mean	nd	tr(0.7)	---
Median	nd	tr(0.6)	---
Maximum	tr(1.2)	7.1	10
Minimum	nd	nd	10

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(1.2)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(0.7)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(0.8)
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(1.3)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(0.6)
	Nagoya City	7	Nagoya Port	Striped mullet	1.6
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	3.1
	Osaka Pref.	9	Osaka Bay	Sea bass	7.1
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	2.0
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(1.1)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	10
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	630
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2,200
				Egg of Great Cormorant (Egg white)	tr(1.3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-5] Pentachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	2,700
Median	3,300
Maximum	45,000
Minimum	98

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	650	3,000	---
Median	460	3,300	---
Maximum	6,200	45,000	36,000
Minimum	98	250	36,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	460
	Yokohama City	2	Yokohama Port	Blue mussel	6,200
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	98
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	360
	Iwate Pref.	2	Yamada Bay	Greenling	1,900
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	2,600
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	1,200
	Tokyo Met.	5	Tokyo Bay	Sea bass	21,000
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	12,000
	Nagoya City	7	Nagoya Port	Striped mullet	3,900
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	6,000
	Osaka Pref.	9	Osaka Bay	Sea bass	45,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	19,000
	Tottori Pref.	11	Nakaumi	Sea bass	2,600
	Hiroshima City	12	Hiroshima Bay	Sea bass	4,600
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	250
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	5,600
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	800
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	350
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	36,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	1000,000
				Egg of Great Cormorant (Egg white)	1,100
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	8600,000
				Egg of Great Cormorant (Egg white)	6,900

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-5-1] 2,3,3',4,4'-Pentachlorobiphenyl (#105) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.6

	Aggregated value
Geometric mean	150
Median	190
Maximum	3,600
Minimum	5.0

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	33	160	---
Median	25	190	---
Maximum	300	1,700	3,600
Minimum	5.0	17	3,600

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	25
	Yokohama City	2	Yokohama Port	Blue mussel	300
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	5.0
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	28
	Iwate Pref.	2	Yamada Bay	Greenling	150
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	200
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	52
	Tokyo Met.	5	Tokyo Bay	Sea bass	800
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	500
	Nagoya City	7	Nagoya Port	Striped mullet	240
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	390
	Osaka Pref.	9	Osaka Bay	Sea bass	1,700
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	760
	Tottori Pref.	11	Nakaumi	Sea bass	80
	Hiroshima City	12	Hiroshima Bay	Sea bass	170
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	17
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	210
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	64
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	26
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	3,600
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	140,000
				Egg of Great Cormorant (Egg white)	160
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	760,000
				Egg of Great Cormorant (Egg white)	690

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-5-2] 2,3,4,4',5-Pentachlorobiphenyl (#114) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : 0.9

Quantification limit : 2.2

	Aggregated value
Geometric mean	9.7
Median	11
Maximum	300
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	16/16	1/1
Detection Frequency (sample)	2/3	16/16	1/1
Geometric mean	tr(2.0)	11	---
Median	tr(1.3)	11	---
Maximum	14	120	300
Minimum	nd	tr(1.2)	300

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(1.3)
	Yokohama City	2	Yokohama Port	Blue mussel	14
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	2.2
	Iwate Pref.	2	Yamada Bay	Greenling	9.9
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	12
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	5.5
	Tokyo Met.	5	Tokyo Bay	Sea bass	43
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	24
	Nagoya City	7	Nagoya Port	Striped mullet	18
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	26
	Osaka Pref.	9	Osaka Bay	Sea bass	120
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	47
	Tottori Pref.	11	Nakaumi	Sea bass	4.0
	Hiroshima City	12	Hiroshima Bay	Sea bass	8.9
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1.2)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	16
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	5.5
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(1.5)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	300
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	13,000
				Egg of Great Cormorant (Egg white)	10
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	71,000
				Egg of Great Cormorant (Egg white)	45

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1-5-3] 2,3',4,4',5-Pentachlorobiphenyl (#118) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.0

	Aggregated value
Geometric mean	520
Median	670
Maximum	17,000
Minimum	20

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	120	550	---
Median	73	670	---
Maximum	1,100	6,700	17,000
Minimum	20	46	17,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	73
	Yokohama City	2	Yokohama Port	Blue mussel	1,100
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	20
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	83
	Iwate Pref.	2	Yamada Bay	Greenling	460
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	680
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	190
	Tokyo Met.	5	Tokyo Bay	Sea bass	3,200
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	2,000
	Nagoya City	7	Nagoya Port	Striped mullet	680
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	990
	Osaka Pref.	9	Osaka Bay	Sea bass	6,700
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	3,100
	Tottori Pref.	11	Nakaumi	Sea bass	410
	Hiroshima City	12	Hiroshima Bay	Sea bass	650
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	46
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	880
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	170
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	88
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	17,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	550,000
				Egg of Great Cormorant (Egg white)	460
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	3900,000
				Egg of Great Cormorant (Egg white)	2,300

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-5-4] 2',3,4,4',5-Pentachlorobiphenyl (#123) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.5

	Aggregated value
Geometric mean	10
Median	12
Maximum	240
Minimum	tr(0.7)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	2.6	11	---
Median	tr(1.3)	12	---
Maximum	19	120	240
Minimum	tr(0.7)	tr(1.1)	240

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(1.3)
	Yokohama City	2	Yokohama Port	Blue mussel	19
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(0.7)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	1.6
	Iwate Pref.	2	Yamada Bay	Greenling	8.9
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	11
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	4.6
	Tokyo Met.	5	Tokyo Bay	Sea bass	47
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	31
	Nagoya City	7	Nagoya Port	Striped mullet	15
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	25
	Osaka Pref.	9	Osaka Bay	Sea bass	120
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	49
	Tottori Pref.	11	Nakaumi	Sea bass	6.1
	Hiroshima City	12	Hiroshima Bay	Sea bass	12
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1.1)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	21
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	4.1
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	1.7
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	240
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	9,800
				Egg of Great Cormorant (Egg white)	7.4
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	57,000
				Egg of Great Cormorant (Egg white)	30

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.



[1-5-5] 3,3',4,4',5-Pentachlorobiphenyl (#126) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : 0.7

Quantification limit : 1.8

	Aggregated value
Geometric mean	3.1
Median	2.9
Maximum	96
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	15/16	1/1
Detection Frequency (sample)	3/3	15/16	1/1
Geometric mean	tr(1.1)	3.0	---
Median	tr(0.9)	3.8	---
Maximum	2.4	14	96
Minimum	tr(0.7)	nd	96

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(0.9)
	Yokohama City	2	Yokohama Port	Blue mussel	2.4
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(0.7)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1.1)
	Iwate Pref.	2	Yamada Bay	Greenling	4.2
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	3.4
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	1.9
	Tokyo Met.	5	Tokyo Bay	Sea bass	6.7
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	4.1
	Nagoya City	7	Nagoya Port	Striped mullet	2.0
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	10
	Osaka Pref.	9	Osaka Bay	Sea bass	14
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	13
	Tottori Pref.	11	Nakaumi	Sea bass	tr(0.9)
	Hiroshima City	12	Hiroshima Bay	Sea bass	4.8
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1.1)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	5.8
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(1.5)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	96
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	2,700
				Egg of Great Cormorant (Egg white)	tr(1.4)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	6,000
				Egg of Great Cormorant (Egg white)	1.9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-6] Hexachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	3,700
Median	3,900
Maximum	99,000
Minimum	150

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	840	4,000	---
Median	810	3,900	---
Maximum	4,800	31,000	99,000
Minimum	150	420	99,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	810
	Yokohama City	2	Yokohama Port	Blue mussel	4,800
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	150
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	560
	Iwate Pref.	2	Yamada Bay	Greenling	4,100
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	3,700
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	1,000
	Tokyo Met.	5	Tokyo Bay	Sea bass	14,000
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	9,700
	Nagoya City	7	Nagoya Port	Striped mullet	2,400
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	6,000
	Osaka Pref.	9	Osaka Bay	Sea bass	31,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	31,000
	Tottori Pref.	11	Nakaumi	Sea bass	3,500
	Hiroshima City	12	Hiroshima Bay	Sea bass	7,700
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	420
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	14,000
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	1,700
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	1,200
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	99,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	1800,000
				Egg of Great Cormorant (Egg white)	1,600
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	15000,000
				Egg of Great Cormorant (Egg white)	6,800

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-6-1] 2,3,3',4,4',5-Hexachlorobiphenyl (#156) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.0

	Aggregated value
Geometric mean	57
Median	61
Maximum	2,700
Minimum	2.7

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	12	60	---
Median	8.0	61	---
Maximum	78	580	2,700
Minimum	2.7	8.3	2,700

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	8.0
	Yokohama City	2	Yokohama Port	Blue mussel	78
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	2.7
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	9.2
	Iwate Pref.	2	Yamada Bay	Greenling	64
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	64
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	15
	Tokyo Met.	5	Tokyo Bay	Sea bass	220
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	150
	Nagoya City	7	Nagoya Port	Striped mullet	58
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	130
	Osaka Pref.	9	Osaka Bay	Sea bass	580
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	380
	Tottori Pref.	11	Nakaumi	Sea bass	33
	Hiroshima City	12	Hiroshima Bay	Sea bass	57
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	8.3
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	130
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	34
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	15
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	2,700
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	75,000
				Egg of Great Cormorant (Egg white)	44
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	510,000
				Egg of Great Cormorant (Egg white)	170

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-6-2] 2,3,3',4,4',5'-Hexachlorobiphenyl (#157) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.1

	Aggregated value
Geometric mean	16
Median	17
Maximum	710
Minimum	tr(0.9)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	3.6	16	---
Median	2.4	17	---
Maximum	21	130	710
Minimum	tr(0.9)	2.2	710

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	2.4
	Yokohama City	2	Yokohama Port	Blue mussel	21
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(0.9)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	3.0
	Iwate Pref.	2	Yamada Bay	Greenling	18
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	20
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	5.1
	Tokyo Met.	5	Tokyo Bay	Sea bass	53
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	38
	Nagoya City	7	Nagoya Port	Striped mullet	13
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	33
	Osaka Pref.	9	Osaka Bay	Sea bass	130
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	89
	Tottori Pref.	11	Nakaumi	Sea bass	10
	Hiroshima City	12	Hiroshima Bay	Sea bass	16
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	2.2
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	33
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	9.1
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	3.7
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	710
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	19,000
				Egg of Great Cormorant (Egg white)	9.8
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	100,000
				Egg of Great Cormorant (Egg white)	32

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[1-6-3] 2,3',4,4',5,5'-Hexachlorobiphenyl (#167) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.7

Quantification limit : 1.7

	Aggregated value
Geometric mean	34
Median	38
Maximum	1,600
Minimum	1.7

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	8.0	35	---
Median	6.6	38	---
Maximum	46	270	1,600
Minimum	1.7	3.2	1,600

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	6.6
	Yokohama City	2	Yokohama Port	Blue mussel	46
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	1.7
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	4.9
	Iwate Pref.	2	Yamada Bay	Greenling	38
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	37
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	12
	Tokyo Met.	5	Tokyo Bay	Sea bass	120
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	91
	Nagoya City	7	Nagoya Port	Striped mullet	28
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	66
	Osaka Pref.	9	Osaka Bay	Sea bass	270
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	220
	Tottori Pref.	11	Nakaumi	Sea bass	29
	Hiroshima City	12	Hiroshima Bay	Sea bass	41
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	3.2
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	87
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	17
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	8.2
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,600
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	38,000
				Egg of Great Cormorant (Egg white)	21
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	240,000
				Egg of Great Cormorant (Egg white)	60

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-6-4] 3,3',4,4',5,5'-Hexachlorobiphenyl (#169) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 7/20 (Missing value : 0)

Detection Frequency (sample) : 7/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.1

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	44
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	6/16	1/1
Detection Frequency (sample)	0/3	6/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	tr(2.0)	44
Minimum	nd	nd	44

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(0.9)
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(1.3)
	Osaka Pref.	9	Osaka Bay	Sea bass	tr(0.8)
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	tr(2.0)
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(1.5)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(1.9)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	44
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	460
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	610
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-7] Heptachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	1,400
Median	1,400
Maximum	37,000
Minimum	36

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	230	1,600	---
Median	300	1,600	---
Maximum	1,100	14,000	37,000
Minimum	36	210	37,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	300
	Yokohama City	2	Yokohama Port	Blue mussel	1,100
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	36
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	240
	Iwate Pref.	2	Yamada Bay	Greenling	2,800
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	1,600
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	280
	Tokyo Met.	5	Tokyo Bay	Sea bass	3,700
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	2,900
	Nagoya City	7	Nagoya Port	Striped mullet	660
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	1,300
	Osaka Pref.	9	Osaka Bay	Sea bass	8,300
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	14,000
	Tottori Pref.	11	Nakaumi	Sea bass	940
	Hiroshima City	12	Hiroshima Bay	Sea bass	3,400
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	210
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	8,200
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	1,100
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	1,500
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	37,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	570,000
				Egg of Great Cormorant (Egg white)	470
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	6600,000
				Egg of Great Cormorant (Egg white)	2,100

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-7-1] 2,2',3,3',4,4',5-Heptachlorobiphenyl (#170) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.2

	Aggregated value
Geometric mean	98
Median	120
Maximum	5,200
Minimum	tr(1.4)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	6.2	130	---
Median	5.9	140	---
Maximum	29	920	5,200
Minimum	tr(1.4)	17	5,200

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	5.9
	Yokohama City	2	Yokohama Port	Blue mussel	29
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(1.4)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	21
	Iwate Pref.	2	Yamada Bay	Greenling	280
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	130
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	22
	Tokyo Met.	5	Tokyo Bay	Sea bass	320
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	260
	Nagoya City	7	Nagoya Port	Striped mullet	72
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	150
	Osaka Pref.	9	Osaka Bay	Sea bass	700
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	920
	Tottori Pref.	11	Nakaumi	Sea bass	62
	Hiroshima City	12	Hiroshima Bay	Sea bass	200
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	17
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	450
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	100
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	56
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	5,200
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	96,000
				Egg of Great Cormorant (Egg white)	71
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	910,000
				Egg of Great Cormorant (Egg white)	320

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.



[1-7-2] 2,2',3,4,4',5,5'-Heptachlorobiphenyl (#180) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	320
Median	390
Maximum	12,000
Minimum	4

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	26	400	---
Median	27	490	---
Maximum	160	2,600	12,000
Minimum	4	55	12,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	27
	Yokohama City	2	Yokohama Port	Blue mussel	160
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	4
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	68
	Iwate Pref.	2	Yamada Bay	Greenling	730
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	470
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	67
	Tokyo Met.	5	Tokyo Bay	Sea bass	920
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	790
	Nagoya City	7	Nagoya Port	Striped mullet	190
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	290
	Osaka Pref.	9	Osaka Bay	Sea bass	2,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	2,600
	Tottori Pref.	11	Nakaumi	Sea bass	170
	Hiroshima City	12	Hiroshima Bay	Sea bass	640
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	55
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	1,700
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	310
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	510
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	12,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	210,000
				Egg of Great Cormorant (Egg white)	140
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2400,000
				Egg of Great Cormorant (Egg white)	600

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[1-7-3] 2,3,3',4,4',5,5'-Heptachlorobiphenyl (#189) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : 0.8

Quantification limit : 2.1

	Aggregated value
Geometric mean	6.7
Median	6.5
Maximum	410
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	16/16	1/1
Detection Frequency (sample)	2/3	16/16	1/1
Geometric mean	tr(1.3)	7.0	---
Median	tr(1.1)	8.9	---
Maximum	5.3	54	410
Minimum	nd	tr(0.9)	410

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(1.1)
	Yokohama City	2	Yokohama Port	Blue mussel	5.3
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1.2)
	Iwate Pref.	2	Yamada Bay	Greenling	12
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	7.7
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	2.2
	Tokyo Met.	5	Tokyo Bay	Sea bass	15
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	12
	Nagoya City	7	Nagoya Port	Striped mullet	3.7
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	10
	Osaka Pref.	9	Osaka Bay	Sea bass	34
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	54
	Tottori Pref.	11	Nakaumi	Sea bass	3.2
	Hiroshima City	12	Hiroshima Bay	Sea bass	10
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(0.9)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	32
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	4.6
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	2.7
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	410
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	6,800
				Egg of Great Cormorant (Egg white)	3.7
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	48,000
				Egg of Great Cormorant (Egg white)	6.6

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-8] Octachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	210
Median	270
Maximum	9,400
Minimum	tr(2)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	12	290	---
Median	16	390	---
Maximum	58	2,200	9,400
Minimum	tr(2)	37	9,400

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	16
	Yokohama City	2	Yokohama Port	Blue mussel	58
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(2)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	37
	Iwate Pref.	2	Yamada Bay	Greenling	630
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	320
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	40
	Tokyo Met.	5	Tokyo Bay	Sea bass	500
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	460
	Nagoya City	7	Nagoya Port	Striped mullet	130
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	180
	Osaka Pref.	9	Osaka Bay	Sea bass	1,000
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	2,200
	Tottori Pref.	11	Nakaumi	Sea bass	120
	Hiroshima City	12	Hiroshima Bay	Sea bass	510
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	38
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	1,500
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	220
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	930
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	9,400
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	97,000
				Egg of Great Cormorant (Egg white)	95
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	1500,000
				Egg of Great Cormorant (Egg white)	250

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [1-9] Nonachlorobiphenyls/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	19
Median	31
Maximum	1,400
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	16/16	1/1
Detection Frequency (sample)	1/3	16/16	1/1
Geometric mean	nd	28	---
Median	nd	33	---
Maximum	tr(1)	180	1,400
Minimum	nd	3	1,400

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(1)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	3
	Iwate Pref.	2	Yamada Bay	Greenling	43
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	31
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	9
	Tokyo Met.	5	Tokyo Bay	Sea bass	44
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	37
	Nagoya City	7	Nagoya Port	Striped mullet	14
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	31
	Osaka Pref.	9	Osaka Bay	Sea bass	73
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	140
	Tottori Pref.	11	Nakaumi	Sea bass	8
	Hiroshima City	12	Hiroshima Bay	Sea bass	35
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	5
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	130
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	15
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	180
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,400
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	11
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	83,000
				Egg of Great Cormorant (Egg white)	9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [1-10] Decachlorobiphenyl/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : 0.6

Quantification limit : 1.6

	Aggregated value
Geometric mean	7.5
Median	7.6
Maximum	760
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	16/16	1/1
Detection Frequency (sample)	1/3	16/16	1/1
Geometric mean	tr(0.8)	8.6	---
Median	nd	8.2	---
Maximum	4.9	66	760
Minimum	nd	tr(1.2)	760

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	4.9
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1.2)
	Iwate Pref.	2	Yamada Bay	Greenling	6.3
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	18
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	8.5
	Tokyo Met.	5	Tokyo Bay	Sea bass	19
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	16
	Nagoya City	7	Nagoya Port	Striped mullet	3.8
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	12
	Osaka Pref.	9	Osaka Bay	Sea bass	14
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	26
	Tottori Pref.	11	Nakaumi	Sea bass	3.9
	Hiroshima City	12	Hiroshima Bay	Sea bass	7.3
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	3.8
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	66
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	2.6
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	7.9
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	760
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	5,600
				Egg of Great Cormorant (Egg white)	4.2
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	24,000
				Egg of Great Cormorant (Egg white)	tr(1.3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [2] HCB (Hexachlorobenzene) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	96
Median	82
Maximum	3,200
Minimum	12

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	23	100	---
Median	16	99	---
Maximum	65	1,100	3,200
Minimum	12	12	3,200

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	65
	Yokohama City	2	Yokohama Port	Blue mussel	12
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	16
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	240
	Iwate Pref.	2	Yamada Bay	Greenling	330
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	110
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	1,100
	Tokyo Met.	5	Tokyo Bay	Sea bass	210
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	63
	Nagoya City	7	Nagoya Port	Striped mullet	70
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	520
	Osaka Pref.	9	Osaka Bay	Sea bass	120
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	110
	Tottori Pref.	11	Nakaumi	Sea bass	12
	Hiroshima City	12	Hiroshima Bay	Sea bass	77
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	35
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	87
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	23
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	28
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	3,200
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	46,000
				Egg of Great Cormorant (Egg white)	74
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	34,000
				Egg of Great Cormorant (Egg white)	97

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

## [11] HCHs/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : ※6

Quantification limit : ※15

	Aggregated value
Geometric mean	43
Median	50
Maximum	1,000
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	14/16	1/1
Detection Frequency (sample)	3/3	14/16	1/1
Geometric mean	33	37	---
Median	47	54	---
Maximum	53	570	1,000
Minimum	15	nd	1,000

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	47
	Yokohama City	2	Yokohama Port	Blue mussel	15
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	53
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	140
	Iwate Pref.	2	Yamada Bay	Greenling	170
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	20
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	570
	Tokyo Met.	5	Tokyo Bay	Sea bass	76
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	27
	Nagoya City	7	Nagoya Port	Striped mullet	98
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	77
	Osaka Pref.	9	Osaka Bay	Sea bass	180
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	96
	Tottori Pref.	11	Nakaumi	Sea bass	tr(10)
	Hiroshima City	12	Hiroshima Bay	Sea bass	31
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(7)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(8)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,000
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	17,000
				Egg of Great Cormorant (Egg white)	200
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	14,000
				Egg of Great Cormorant (Egg white)	1,200

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each isomers.

[11-1]  $\alpha$ -HCH/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 16/20 (Missing value : 0)

Detection Frequency (sample) : 16/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	9
Median	8
Maximum	130
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	12/16	1/1
Detection Frequency (sample)	3/3	12/16	1/1
Geometric mean	9	8	---
Median	12	8	---
Maximum	14	130	63
Minimum	4	nd	63

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	12
	Yokohama City	2	Yokohama Port	Blue mussel	4
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	14
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	57
	Iwate Pref.	2	Yamada Bay	Greenling	46
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	8
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	130
	Tokyo Met.	5	Tokyo Bay	Sea bass	18
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	5
	Nagoya City	7	Nagoya Port	Striped mullet	26
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	7
	Osaka Pref.	9	Osaka Bay	Sea bass	27
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	8
	Tottori Pref.	11	Nakaumi	Sea bass	tr(3)
	Hiroshima City	12	Hiroshima Bay	Sea bass	6
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	63
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	460
				Egg of Great Cormorant (Egg white)	tr(3)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	240
				Egg of Great Cormorant (Egg white)	29

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



[11-2]  $\beta$ -HCH/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	32
Median	33
Maximum	950
Minimum	3

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	23	27	---
Median	32	35	---
Maximum	33	400	950
Minimum	11	3	950

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	33
	Yokohama City	2	Yokohama Port	Blue mussel	11
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	32
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	69
	Iwate Pref.	2	Yamada Bay	Greenling	110
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	9
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	400
	Tokyo Met.	5	Tokyo Bay	Sea bass	47
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	19
	Nagoya City	7	Nagoya Port	Striped mullet	58
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	68
	Osaka Pref.	9	Osaka Bay	Sea bass	140
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	81
	Tottori Pref.	11	Nakaumi	Sea bass	6
	Hiroshima City	12	Hiroshima Bay	Sea bass	22
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	3
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	7
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	4
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	8
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	950
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	16,000
				Egg of Great Cormorant (Egg white)	200
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	14,000
				Egg of Great Cormorant (Egg white)	1,200

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[11-3]  $\gamma$ -HCH (synonym:Lindane) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 16/20 (Missing value : 0)

Detection Frequency (sample) : 16/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	tr(3)
Median	tr(3)
Maximum	34
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	13/16	1/1
Detection Frequency (sample)	2/3	13/16	1/1
Geometric mean	tr(2)	tr(3)	---
Median	tr(2)	tr(3)	---
Maximum	7	34	7
Minimum	nd	nd	7

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(2)
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	7
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	16
	Iwate Pref.	2	Yamada Bay	Greenling	15
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(3)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	34
	Tokyo Met.	5	Tokyo Bay	Sea bass	8
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(3)
	Nagoya City	7	Nagoya Port	Striped mullet	11
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(2)
	Osaka Pref.	9	Osaka Bay	Sea bass	9
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	tr(3)
	Tottori Pref.	11	Nakaumi	Sea bass	tr(1)
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(3)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	7
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	100
				Egg of Great Cormorant (Egg white)	tr(1)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	110
				Egg of Great Cormorant (Egg white)	5

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[11-4]  $\delta$ -HCH/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 7/20 (Missing value : 0)

Detection Frequency (sample) : 7/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	5
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	6/16	1/1
Detection Frequency (sample)	0/3	6/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	5	4
Minimum	nd	nd	4

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(2)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(3)
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(3)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	tr(3)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	5
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	4
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	4
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	33
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	35
				Egg of Great Cormorant (Egg white)	tr(3)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14] Polybromodiphenyl ethers (B<sub>1</sub> - Br<sub>10</sub>) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 12/20 (Missing value : 0)

Detection Frequency (sample) : 12/20 (Missing value : 0)

Detection limit : ※120

Quantification limit : ※330

	Aggregated value
Geometric mean	tr(150)
Median	tr(140)
Maximum	1,400
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	10/16	1/1
Detection Frequency (sample)	1/3	10/16	1/1
Geometric mean	nd	tr(140)	---
Median	nd	tr(140)	---
Maximum	410	670	1,400
Minimum	nd	nd	1,400

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	410
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(140)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(140)
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(270)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(130)
	Nagoya City	7	Nagoya Port	Striped mullet	tr(150)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	470
	Osaka Pref.	9	Osaka Bay	Sea bass	390
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	tr(270)
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(180)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	670
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,400
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	88,000
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	94,000
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [14-1] Tetrabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 7

Quantification limit : 18

	Aggregated value
Geometric mean	54
Median	62
Maximum	210
Minimum	tr(10)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	26	57	---
Median	tr(17)	62	---
Maximum	68	210	210
Minimum	tr(15)	tr(10)	210

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(17)
	Yokohama City	2	Yokohama Port	Blue mussel	68
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(15)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(10)
	Iwate Pref.	2	Yamada Bay	Greenling	89
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	29
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	58
	Tokyo Met.	5	Tokyo Bay	Sea bass	130
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	60
	Nagoya City	7	Nagoya Port	Striped mullet	63
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	210
	Osaka Pref.	9	Osaka Bay	Sea bass	210
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	130
	Tottori Pref.	11	Nakaumi	Sea bass	24
	Hiroshima City	12	Hiroshima Bay	Sea bass	77
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(11)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	120
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	26
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	41
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	210
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	43
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	23,000
				Egg of Great Cormorant (Egg white)	36

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[14-1-1] 2,2',4,4'-Tetrabromodiphenyl ether (#47) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : 7

Quantification limit : 18

	Aggregated value
Geometric mean	35
Median	44
Maximum	150
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	15/16	1/1
Detection Frequency (sample)	3/3	15/16	1/1
Geometric mean	tr(16)	37	---
Median	tr(11)	48	---
Maximum	44	150	130
Minimum	tr(9)	nd	130

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(9)
	Yokohama City	2	Yokohama Port	Blue mussel	44
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(11)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	72
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	24
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	27
	Tokyo Met.	5	Tokyo Bay	Sea bass	97
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	44
	Nagoya City	7	Nagoya Port	Striped mullet	51
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	150
	Osaka Pref.	9	Osaka Bay	Sea bass	130
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	87
	Tottori Pref.	11	Nakaumi	Sea bass	tr(14)
	Hiroshima City	12	Hiroshima Bay	Sea bass	52
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(7)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	58
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(16)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	40
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	130
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	14,000
				Egg of Great Cormorant (Egg white)	38
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	23,000
				Egg of Great Cormorant (Egg white)	33

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-2] Pentabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 4

Quantification limit : 10

	Aggregated value
Geometric mean	18
Median	18
Maximum	150
Minimum	tr(4)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	12	17	---
Median	12	18	---
Maximum	28	58	150
Minimum	tr(5)	tr(4)	150

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(5)
	Yokohama City	2	Yokohama Port	Blue mussel	28
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	12
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(8)
	Iwate Pref.	2	Yamada Bay	Greenling	18
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	14
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	30
	Tokyo Met.	5	Tokyo Bay	Sea bass	27
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	17
	Nagoya City	7	Nagoya Port	Striped mullet	11
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	58
	Osaka Pref.	9	Osaka Bay	Sea bass	47
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	34
	Tottori Pref.	11	Nakaumi	Sea bass	tr(7)
	Hiroshima City	12	Hiroshima Bay	Sea bass	18
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(4)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	56
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(6)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(9)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	150
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	11
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	13,000
				Egg of Great Cormorant (Egg white)	tr(5)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

[14-2-1] 2,2',4,4',5-Pentabromodiphenyl ether (#99) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 7/20 (Missing value : 0)

Detection Frequency (sample) : 7/20 (Missing value : 0)

Detection limit : 4

Quantification limit : 10

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	19
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	4/16	1/1
Detection Frequency (sample)	2/3	4/16	1/1
Geometric mean	tr(6)	nd	---
Median	tr(5)	nd	---
Maximum	19	13	tr(7)
Minimum	nd	nd	tr(7)

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	19
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(5)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(6)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(8)
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(5)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	13
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	tr(7)
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	790
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2,900
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [14-3] Hexabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : 8

Quantification limit : 21

	Aggregated value
Geometric mean	36
Median	38
Maximum	480
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	16/16	1/1
Detection Frequency (sample)	1/3	16/16	1/1
Geometric mean	nd	42	---
Median	nd	40	---
Maximum	24	290	480
Minimum	nd	tr(12)	480

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	24
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(13)
	Iwate Pref.	2	Yamada Bay	Greenling	34
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	39
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	41
	Tokyo Met.	5	Tokyo Bay	Sea bass	80
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	37
	Nagoya City	7	Nagoya Port	Striped mullet	41
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	170
	Osaka Pref.	9	Osaka Bay	Sea bass	78
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	87
	Tottori Pref.	11	Nakaumi	Sea bass	tr(15)
	Hiroshima City	12	Hiroshima Bay	Sea bass	54
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(18)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	290
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(16)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(12)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	480
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	32,000
				Egg of Great Cormorant (Egg white)	tr(19)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	33,000
				Egg of Great Cormorant (Egg white)	tr(9)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-3-1] 2,2',4,4',5,5'-Hexabromodiphenyl ether (#153) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 3/20 (Missing value : 0)

Detection Frequency (sample) : 3/20 (Missing value : 0)

Detection limit : 8

Quantification limit : 21

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	58
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	2/16	1/1
Detection Frequency (sample)	0/3	2/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	21	58
Minimum	nd	nd	58

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	21
	Osaka Pref.	9	Osaka Bay	Sea bass	tr(12)
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	58
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	7,300
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	10,000
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-3-2] 2,2',4,4',5,6'-Hexabromodiphenyl ether (#154) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 12/20 (Missing value : 0)

Detection Frequency (sample) : 12/20 (Missing value : 0)

Detection limit : 8

Quantification limit : 21

	Aggregated value
Geometric mean	tr(12)
Median	tr(12)
Maximum	280
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	11/16	1/1
Detection Frequency (sample)	0/3	11/16	1/1
Geometric mean	nd	tr(12)	---
Median	nd	tr(13)	---
Maximum	nd	79	280
Minimum	nd	nd	280

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	tr(15)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(14)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(20)
	Tokyo Met.	5	Tokyo Bay	Sea bass	21
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(11)
	Nagoya City	7	Nagoya Port	Striped mullet	tr(11)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	56
	Osaka Pref.	9	Osaka Bay	Sea bass	tr(12)
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	24
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(13)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	79
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	280
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	tr(11)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	11,000
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-4] Heptabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 11/20 (Missing value : 0)

Detection Frequency (sample) : 11/20 (Missing value : 0)

Detection limit : 9

Quantification limit : 24

	Aggregated value
Geometric mean	tr(11)
Median	tr(10)
Maximum	260
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	9/16	1/1
Detection Frequency (sample)	1/3	9/16	1/1
Geometric mean	nd	tr(10)	---
Median	nd	tr(10)	---
Maximum	tr(18)	82	260
Minimum	nd	nd	260

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(18)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(12)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(9)
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(10)
	Nagoya City	7	Nagoya Port	Striped mullet	25
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(23)
	Osaka Pref.	9	Osaka Bay	Sea bass	30
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	tr(15)
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(17)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	82
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	260
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	12,000
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	14,000
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[14-4-1] 2,2',3,3',4,5',6-Heptabromodiphenyl ether (#175) /wildlife (pg/g-wet) and

[14-4-2] 2,2',3,4,4',5',6-Heptabromodiphenyl ether (#183) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 0/20 (Missing value : 0)

Detection Frequency (sample) : 0/20 (Missing value : 0)

Detection limit : 9

Quantification limit : 24

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	nd
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	0/16	0/1
Detection Frequency (sample)	0/3	0/16	0/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	550
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	500
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [14-5] Octabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 10/20 (Missing value : 0)

Detection Frequency (sample) : 10/20 (Missing value : 0)

Detection limit : 7

Quantification limit : 17

	Aggregated value
Geometric mean	tr(9)
Median	nd
Maximum	330
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	8/16	1/1
Detection Frequency (sample)	1/3	8/16	1/1
Geometric mean	tr(8)	tr(8)	---
Median	nd	nd	---
Maximum	39	120	330
Minimum	nd	nd	330

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	39
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(14)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(9)
	Nagoya City	7	Nagoya Port	Striped mullet	tr(13)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(9)
	Osaka Pref.	9	Osaka Bay	Sea bass	23
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	tr(8)
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	18
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	120
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	330
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	13,000
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	10,000
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [14-6] Nonabromodiphenyl ethers/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 1/20 (Missing value : 0)

Detection Frequency (sample) : 1/20 (Missing value : 0)

Detection limit : 20

Quantification limit : 50

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	81
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	0/16	0/1
Detection Frequency (sample)	1/3	0/16	0/1
Geometric mean	tr(20)	nd	---
Median	nd	nd	---
Maximum	81	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	81
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	450
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	370
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [14-7] Decabromodiphenyl ether/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 1/20 (Missing value : 0)

Detection Frequency (sample) : 1/20 (Missing value : 0)

Detection limit : 70

Quantification limit : 190

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(180)
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	0/16	0/1
Detection Frequency (sample)	1/3	0/16	0/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	tr(180)	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(180)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	650
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	690
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [15] Perfluorooctane sulfonic acid (PFOS) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	55
Median	80
Maximum	3,600
Minimum	tr(2)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	10	67	---
Median	tr(4)	80	---
Maximum	140	3,600	360
Minimum	tr(2)	tr(3)	360

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(2)
	Yokohama City	2	Yokohama Port	Blue mussel	140
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(4)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	6
	Iwate Pref.	2	Yamada Bay	Greenling	tr(4)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	19
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	15
	Tokyo Met.	5	Tokyo Bay	Sea bass	420
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	390
	Nagoya City	7	Nagoya Port	Striped mullet	86
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	3,600
	Osaka Pref.	9	Osaka Bay	Sea bass	250
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	190
	Tottori Pref.	11	Nakaumi	Sea bass	160
	Hiroshima City	12	Hiroshima Bay	Sea bass	68
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	73
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	90
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	51
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(3)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	360
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	50,000
				Egg of Great Cormorant (Egg white)	290
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	94,000
				Egg of Great Cormorant (Egg white)	320

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [16] Perfluorooctanoic acid (PFOA) /wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 16/20 (Missing value : 0)

Detection Frequency (sample) : 16/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	tr(4)
Median	tr(3)
Maximum	27
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	12/16	1/1
Detection Frequency (sample)	3/3	12/16	1/1
Geometric mean	tr(3)	tr(3)	---
Median	tr(4)	tr(3)	---
Maximum	tr(5)	18	27
Minimum	tr(2)	nd	27

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(2)
	Yokohama City	2	Yokohama Port	Blue mussel	tr(5)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(4)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	6
	Iwate Pref.	2	Yamada Bay	Greenling	8
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	18
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(3)
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(4)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(3)
	Nagoya City	7	Nagoya Port	Striped mullet	tr(3)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	9
	Osaka Pref.	9	Osaka Bay	Sea bass	tr(3)
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(2)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(2)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	8
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	27
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	330
				Egg of Great Cormorant (Egg white)	tr(4)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2,500
				Egg of Great Cormorant (Egg white)	23

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [17] Pentachlorobenzene/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	21
Median	16
Maximum	470
Minimum	3

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	10	20	---
Median	11	19	---
Maximum	14	280	470
Minimum	7	3	470

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	11
	Yokohama City	2	Yokohama Port	Blue mussel	7
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	14
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	20
	Iwate Pref.	2	Yamada Bay	Greenling	43
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	7
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	140
	Tokyo Met.	5	Tokyo Bay	Sea bass	280
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	40
	Nagoya City	7	Nagoya Port	Striped mullet	39
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	41
	Osaka Pref.	9	Osaka Bay	Sea bass	88
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	17
	Tottori Pref.	11	Nakaumi	Sea bass	4
	Hiroshima City	12	Hiroshima Bay	Sea bass	15
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	4
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	7
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	3
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	7
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	470
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	6,200
				Egg of Great Cormorant (Egg white)	16
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	5,900
				Egg of Great Cormorant (Egg white)	21

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

[19] 1,2,5,6,9,10-Hexabromocyclododecanes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 15/20 (Missing value : 0)

Detection Frequency (sample) : 15/20 (Missing value : 0)

Detection limit : ※27

Quantification limit : ※70

	Aggregated value
Geometric mean	110
Median	140
Maximum	1,100
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	11/16	1/1
Detection Frequency (sample)	3/3	11/16	1/1
Geometric mean	180	89	---
Median	170	110	---
Maximum	420	1,000	1,100
Minimum	81	nd	1,100

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	81
	Yokohama City	2	Yokohama Port	Blue mussel	420
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	170
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	84
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	360
	Tokyo Met.	5	Tokyo Bay	Sea bass	330
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	100
	Nagoya City	7	Nagoya Port	Striped mullet	120
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	390
	Osaka Pref.	9	Osaka Bay	Sea bass	330
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	1,000
	Tottori Pref.	11	Nakaumi	Sea bass	tr(48)
	Hiroshima City	12	Hiroshima Bay	Sea bass	160
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	310
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,100
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	56,000
				Egg of Great Cormorant (Egg white)	110
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	44,000
				Egg of Great Cormorant (Egg white)	190

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each isomers.

[19-1]  $\alpha$ -1,2,5,6,9,10-Hexabromocyclododecane/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : 9

Quantification limit : 24

	Aggregated value
Geometric mean	98
Median	120
Maximum	1,100
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	15/16	1/1
Detection Frequency (sample)	3/3	15/16	1/1
Geometric mean	140	79	---
Median	150	92	---
Maximum	260	980	1,100
Minimum	68	nd	1,100

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	68
	Yokohama City	2	Yokohama Port	Blue mussel	260
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	150
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(15)
	Iwate Pref.	2	Yamada Bay	Greenling	84
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(13)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	350
	Tokyo Met.	5	Tokyo Bay	Sea bass	300
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	77
	Nagoya City	7	Nagoya Port	Striped mullet	100
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	370
	Osaka Pref.	9	Osaka Bay	Sea bass	270
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	980
	Tottori Pref.	11	Nakaumi	Sea bass	48
	Hiroshima City	12	Hiroshima Bay	Sea bass	130
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	300
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(9)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	24
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,100
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	54,000
				Egg of Great Cormorant (Egg white)	110
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	43,000
				Egg of Great Cormorant (Egg white)	190

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[19-2]  $\beta$ -1,2,5,6,9,10-Hexabromocyclododecane/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 1/20 (Missing value : 0)

Detection Frequency (sample) : 1/20 (Missing value : 0)

Detection limit : 9

Quantification limit : 24

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(22)
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	0/16	0/1
Detection Frequency (sample)	1/3	0/16	0/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	tr(22)	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(22)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	nd
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	nd
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[19-3]  $\gamma$ -1,2,5,6,9,10-Hexabromocyclododecane/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 12/20 (Missing value : 0)

Detection Frequency (sample) : 12/20 (Missing value : 0)

Detection limit : 9

Quantification limit : 22

	Aggregated value
Geometric mean	tr(13)
Median	tr(13)
Maximum	140
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	9/16	0/1
Detection Frequency (sample)	3/3	9/16	0/1
Geometric mean	34	tr(12)	---
Median	22	tr(13)	---
Maximum	140	62	nd
Minimum	tr(13)	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(13)
	Yokohama City	2	Yokohama Port	Blue mussel	140
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	22
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(13)
	Tokyo Met.	5	Tokyo Bay	Sea bass	30
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	26
	Nagoya City	7	Nagoya Port	Striped mullet	tr(20)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	23
	Osaka Pref.	9	Osaka Bay	Sea bass	62
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	27
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	34
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(12)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	2,000
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	940
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20] Total Polychlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 15/20 (Missing value : 0)

Detection Frequency (sample) : 15/20 (Missing value : 0)

Detection limit : ※15

Quantification limit : ※40

	Aggregated value
Geometric mean	53
Median	82
Maximum	820
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	12/16	1/1
Detection Frequency (sample)	2/3	12/16	1/1
Geometric mean	84	46	---
Median	96	78	---
Maximum	820	270	170
Minimum	nd	nd	170

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	96
	Yokohama City	2	Yokohama Port	Blue mussel	820
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	100
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(20)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	76
	Tokyo Met.	5	Tokyo Bay	Sea bass	200
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	140
	Nagoya City	7	Nagoya Port	Striped mullet	100
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	85
	Osaka Pref.	9	Osaka Bay	Sea bass	270
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	170
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	44
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(19)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	79
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	170
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	29,000
				Egg of Great Cormorant (Egg white)	tr(17)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.



## [20-1] Monochlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 13/20 (Missing value : 0)

Detection Frequency (sample) : 13/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	tr(3)
Median	tr(3)
Maximum	29
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	10/16	0/1
Detection Frequency (sample)	3/3	10/16	0/1
Geometric mean	4	4	---
Median	tr(3)	4	---
Maximum	11	29	nd
Minimum	tr(2)	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(2)
	Yokohama City	2	Yokohama Port	Blue mussel	11
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(3)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	9
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	12
	Tokyo Met.	5	Tokyo Bay	Sea bass	7
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	7
	Nagoya City	7	Nagoya Port	Striped mullet	15
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	29
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	6
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	5
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(3)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(2)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	4
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	9
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-2] Dichlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 11/20 (Missing value : 0)

Detection Frequency (sample) : 11/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	tr(4)
Median	tr(4)
Maximum	58
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	9/16	0/1
Detection Frequency (sample)	2/3	9/16	0/1
Geometric mean	7	tr(4)	---
Median	5	5	---
Maximum	58	26	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	5
	Yokohama City	2	Yokohama Port	Blue mussel	58
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	21
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	26
	Tokyo Met.	5	Tokyo Bay	Sea bass	14
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	11
	Nagoya City	7	Nagoya Port	Striped mullet	11
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	24
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	20
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	7
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(3)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	tr(4)
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	5
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-3] Trichlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 12/20 (Missing value : 0)

Detection Frequency (sample) : 12/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 5

	Aggregated value
Geometric mean	tr(4)
Median	tr(2)
Maximum	180
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	9/16	1/1
Detection Frequency (sample)	2/3	9/16	1/1
Geometric mean	17	tr(3)	---
Median	26	tr(2)	---
Maximum	180	22	tr(2)
Minimum	nd	nd	tr(2)

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	26
	Yokohama City	2	Yokohama Port	Blue mussel	180
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	9
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	8
	Tokyo Met.	5	Tokyo Bay	Sea bass	22
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	16
	Nagoya City	7	Nagoya Port	Striped mullet	11
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(2)
	Osaka Pref.	9	Osaka Bay	Sea bass	22
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	9
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(3)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	tr(2)
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	35
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	110
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-4] Tetrachlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	18
Median	31
Maximum	380
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	2/3	15/16	1/1
Detection Frequency (sample)	2/3	15/16	1/1
Geometric mean	26	15	---
Median	48	23	---
Maximum	380	96	66
Minimum	nd	nd	66

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	48
	Yokohama City	2	Yokohama Port	Blue mussel	380
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	30
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	6
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	13
	Tokyo Met.	5	Tokyo Bay	Sea bass	80
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	52
	Nagoya City	7	Nagoya Port	Striped mullet	38
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	31
	Osaka Pref.	9	Osaka Bay	Sea bass	96
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	75
	Tottori Pref.	11	Nakaumi	Sea bass	tr(4)
	Hiroshima City	12	Hiroshima Bay	Sea bass	16
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(3)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(5)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(4)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	35
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	66
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	7,100
				Egg of Great Cormorant (Egg white)	tr(2)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	15,000
				Egg of Great Cormorant (Egg white)	9

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-5] Pentachlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	18
Median	19
Maximum	170
Minimum	tr(2)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	17	17	---
Median	15	19	---
Maximum	170	76	68
Minimum	tr(2)	tr(3)	68

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	15
	Yokohama City	2	Yokohama Port	Blue mussel	170
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(2)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(3)
	Iwate Pref.	2	Yamada Bay	Greenling	28
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	10
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	16
	Tokyo Met.	5	Tokyo Bay	Sea bass	57
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	37
	Nagoya City	7	Nagoya Port	Striped mullet	22
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	46
	Osaka Pref.	9	Osaka Bay	Sea bass	76
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	56
	Tottori Pref.	11	Nakaumi	Sea bass	tr(4)
	Hiroshima City	12	Hiroshima Bay	Sea bass	11
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(4)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	12
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	6
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	36
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	68
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	6,000
				Egg of Great Cormorant (Egg white)	tr(2)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	9,400
				Egg of Great Cormorant (Egg white)	6

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [20-6] Hexachlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 16/20 (Missing value : 0)

Detection Frequency (sample) : 16/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 4

	Aggregated value
Geometric mean	tr(3)
Median	tr(3)
Maximum	35
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	14/16	1/1
Detection Frequency (sample)	1/3	14/16	1/1
Geometric mean	tr(2)	tr(3)	---
Median	nd	tr(3)	---
Maximum	16	21	35
Minimum	nd	nd	35

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	16
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1)
	Iwate Pref.	2	Yamada Bay	Greenling	4
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	4
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	tr(1)
	Tokyo Met.	5	Tokyo Bay	Sea bass	15
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	14
	Nagoya City	7	Nagoya Port	Striped mullet	tr(3)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	6
	Osaka Pref.	9	Osaka Bay	Sea bass	21
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	8
	Tottori Pref.	11	Nakaumi	Sea bass	tr(1)
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(2)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(2)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(3)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	35
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	1,400
				Egg of Great Cormorant (Egg white)	tr(1)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	4,600
				Egg of Great Cormorant (Egg white)	tr(2)

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [20-7] Heptachlorinated naphthalenes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 0/20 (Missing value : 0)

Detection Frequency (sample) : 0/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	nd
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	0/16	0/1
Detection Frequency (sample)	0/3	0/16	0/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	12
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	46
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected

## [20-8] Octachlorinated naphthalene/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 0/20 (Missing value : 0)

Detection Frequency (sample) : 0/20 (Missing value : 0)

Detection limit : 2

Quantification limit : 6

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	nd
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	0/16	0/1
Detection Frequency (sample)	0/3	0/16	0/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	nd	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	nd
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	nd
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	nd
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) nd : Not detected



## [22] Pentachlorophenol and its salts and esters/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 19/20 (Missing value : 0)

Detection Frequency (sample) : 19/20 (Missing value : 0)

Detection limit : ※5

Quantification limit : ※13

	Aggregated value
Geometric mean	29
Median	31
Maximum	520
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	15/16	1/1
Detection Frequency (sample)	3/3	15/16	1/1
Geometric mean	31	24	---
Median	28	31	---
Maximum	69	120	520
Minimum	15	nd	520

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	28
	Yokohama City	2	Yokohama Port	Blue mussel	69
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	15
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	33
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	15
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	20
	Tokyo Met.	5	Tokyo Bay	Sea bass	120
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	36
	Nagoya City	7	Nagoya Port	Striped mullet	70
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	33
	Osaka Pref.	9	Osaka Bay	Sea bass	73
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	42
	Tottori Pref.	11	Nakaumi	Sea bass	23
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(5)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	28
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	34
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	22
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(9)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	520
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	2,000
				Egg of Great Cormorant (Egg white)	46
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2,100
				Egg of Great Cormorant (Egg white)	88

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each target chemicals.

## [22-1] Pentachlorophenol/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 18/20 (Missing value : 0)

Detection Frequency (sample) : 18/20 (Missing value : 0)

Detection limit : 4

Quantification limit : 10

	Aggregated value
Geometric mean	21
Median	22
Maximum	430
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	14/16	1/1
Detection Frequency (sample)	3/3	14/16	1/1
Geometric mean	26	17	---
Median	26	22	---
Maximum	54	57	430
Minimum	13	nd	430

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	26
	Yokohama City	2	Yokohama Port	Blue mussel	54
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	13
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	32
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	13
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	11
	Tokyo Met.	5	Tokyo Bay	Sea bass	57
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	22
	Nagoya City	7	Nagoya Port	Striped mullet	54
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	20
	Osaka Pref.	9	Osaka Bay	Sea bass	32
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	24
	Tottori Pref.	11	Nakaumi	Sea bass	21
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	22
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	33
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	21
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(7)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	430
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	1,600
				Egg of Great Cormorant (Egg white)	44
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	1,400
				Egg of Great Cormorant (Egg white)	88

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [22-2] Pentachloroanisole/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 20/20 (Missing value : 0)

Detection Frequency (sample) : 20/20 (Missing value : 0)

Detection limit : 1

Quantification limit : 3

	Aggregated value
Geometric mean	6
Median	6
Maximum	91
Minimum	tr(1)

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	16/16	1/1
Detection Frequency (sample)	3/3	16/16	1/1
Geometric mean	4	5	---
Median	tr(2)	6	---
Maximum	15	59	91
Minimum	tr(2)	tr(1)	91

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	tr(2)
	Yokohama City	2	Yokohama Port	Blue mussel	15
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(2)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(1)
	Iwate Pref.	2	Yamada Bay	Greenling	tr(1)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(2)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	9
	Tokyo Met.	5	Tokyo Bay	Sea bass	59
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	14
	Nagoya City	7	Nagoya Port	Striped mullet	16
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	13
	Osaka Pref.	9	Osaka Bay	Sea bass	41
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	18
	Tottori Pref.	11	Nakaumi	Sea bass	tr(2)
	Hiroshima City	12	Hiroshima Bay	Sea bass	5
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	6
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(1)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(1)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(2)
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	91
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	430
				Egg of Great Cormorant (Egg white)	tr(2)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	710
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

## [23] Short-chain chlorinated paraffins/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 6/20 (Missing value : 0)

Detection Frequency (sample) : 6/20 (Missing value : 0)

Detection limit : ※1,200

Quantification limit : ※3,000

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	3,800
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	4/16	1/1
Detection Frequency (sample)	1/3	4/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	tr(1,700)	3,700	3,800
Minimum	nd	nd	3,800

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(1,700)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(2,400)
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	3,700
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(2,000)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(1,500)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	3,800
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	6,600
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	8,100
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

(Note 5) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

## [23-1] Chlorinated decanes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 6/20 (Missing value : 0)

Detection Frequency (sample) : 6/20 (Missing value : 0)

Detection limit : 300

Quantification limit : 900

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(700)
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	5/16	1/1
Detection Frequency (sample)	0/3	5/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	tr(700)	tr(600)
Minimum	nd	nd	tr(600)

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(500)
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(400)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(300)
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(700)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(400)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	tr(600)
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	tr(400)
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	tr(300)
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-2] Chlorinated undecanes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 13/20 (Missing value : 0)

Detection Frequency (sample) : 13/20 (Missing value : 0)

Detection limit : 200

Quantification limit : 500

	Aggregated value
Geometric mean	tr(300)
Median	tr(400)
Maximum	1,400
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	11/16	1/1
Detection Frequency (sample)	1/3	11/16	1/1
Geometric mean	nd	tr(300)	---
Median	nd	tr(400)	---
Maximum	600	1,100	1,400
Minimum	nd	nd	1,400

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	600
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	600
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	1,100
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(400)
	Nagoya City	7	Nagoya Port	Striped mullet	500
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(300)
	Osaka Pref.	9	Osaka Bay	Sea bass	tr(200)
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	600
	Hiroshima City	12	Hiroshima Bay	Sea bass	1,100
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	900
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(200)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	700
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,400
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	1,500
				Egg of Great Cormorant (Egg white)	tr(200)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	1,500
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-3] Chlorinated dodecanes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 3/20 (Missing value : 0)

Detection Frequency (sample) : 3/20 (Missing value : 0)

Detection limit : 500

Quantification limit : 1,200

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(900)
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	0/3	2/16	1/1
Detection Frequency (sample)	0/3	2/16	1/1
Geometric mean	nd	nd	---
Median	nd	nd	---
Maximum	nd	tr(900)	tr(500)
Minimum	nd	nd	tr(500)

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	nd
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	tr(500)
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(900)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	nd
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	nd
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	nd
	Hiroshima City	12	Hiroshima Bay	Sea bass	nd
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	nd
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	nd
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	nd
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	tr(500)
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	2,300
				Egg of Great Cormorant (Egg white)	nd
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	2,900
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

## [23-4] Chlorinated tridecanes/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 15/20 (Missing value : 0)

Detection Frequency (sample) : 15/20 (Missing value : 0)

Detection limit : 200

Quantification limit : 400

	Aggregated value
Geometric mean	tr(300)
Median	tr(200)
Maximum	1,300
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	3/3	11/16	1/1
Detection Frequency (sample)	3/3	11/16	1/1
Geometric mean	500	tr(200)	---
Median	400	tr(200)	---
Maximum	1,100	1,300	1,300
Minimum	tr(300)	nd	1,300

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	400
	Yokohama City	2	Yokohama Port	Blue mussel	1,100
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	tr(300)
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	800
	Iwate Pref.	2	Yamada Bay	Greenling	tr(200)
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	tr(300)
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	1,300
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	nd
	Nagoya City	7	Nagoya Port	Striped mullet	tr(300)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(200)
	Osaka Pref.	9	Osaka Bay	Sea bass	nd
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	nd
	Tottori Pref.	11	Nakaumi	Sea bass	tr(200)
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(200)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	tr(200)
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(300)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	tr(200)
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	nd
Birds	Tottori Pref.	1	Riv.Tenjin(Kurayoshi City)	Great Cormorant	1,300
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	2,400
				Egg of Great Cormorant (Egg white)	400
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	3,400
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected



## [24] Dicofo/wildlife (pg/g-wet)

Monitored year : 2019

Detection Frequency (site) : 13/20 (Missing value : 0)

Detection Frequency (sample) : 13/20 (Missing value : 0)

Detection limit : 10

Quantification limit : 30

	Aggregated value
Geometric mean	tr(10)
Median	tr(10)
Maximum	120
Minimum	nd

	Bivalves	Fish	Birds
Detection Frequency (site)	1/3	12/16	0/1
Detection Frequency (sample)	1/3	12/16	0/1
Geometric mean	nd	tr(10)	---
Median	nd	tr(10)	---
Maximum	tr(10)	120	nd
Minimum	nd	nd	nd

	Local communities	No.	Monitored sites	Wildlife species	Measured value
Bivalves	Iwate Pref.	1	Yamada Bay	Blue mussel	nd
	Yokohama City	2	Yokohama Port	Blue mussel	tr(10)
	Ishikawa Pref.	3	Coast of Noto Peninsula	Blue mussel	nd
Fish	Hokkaido	1	Offshore of Kushiro	Rock greenling	nd
	Iwate Pref.	2	Yamada Bay	Greenling	nd
	Miyagi Pref.	3	Sendai Bay (Matsushima Bay)	Greenling	nd
	Ibaraki Pref.	4	Offshore of Joban	Chub mackerel	nd
	Tokyo Met.	5	Tokyo Bay	Sea bass	tr(10)
	Kawasaki City	6	Offshore of Ogishima Island,	Sea bass	tr(10)
	Nagoya City	7	Nagoya Port	Striped mullet	tr(20)
	Shiga Pref.	8	Lake Biwa, Riv. Ado	Dace	tr(10)
	Osaka Pref.	9	Osaka Bay	Sea bass	40
	Hyogo Pref.	10	Offshore of Himeji	Sea bass	120
	Tottori Pref.	11	Nakaumi	Sea bass	tr(10)
	Hiroshima City	12	Hiroshima Bay	Sea bass	tr(10)
	Kochi Pref.	13	Mouth of Riv. Shimanto	Sea bass	30
	Oita Pref.	14	Mouth of Riv. Oita (Oita City)	Sea bass	tr(10)
	Kagoshima Pref.	15	West Coast of Satsuma Peninsula	Sea bass	100
	Okinawa Pref.	16	Nakagusuku Bay	Okinawa seabream	tr(10)
Birds	Tottori Pref.	1	Riv. Tenjin (Kurayoshi City)	Great Cormorant	nd
	Yamanashi Pref.	Reference value	Shimosone-bashi Bridge, Riv. Fuefuki (Kofu City)	Egg of Great Cormorant (Egg yolk)	190
				Egg of Great Cormorant (Egg white)	tr(10)
	Hyogo Pref.	Reference value	Koya Pond (Itami City)	Egg of Great Cormorant (Egg yolk)	80
				Egg of Great Cormorant (Egg white)	nd

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) tr : Detection limit value and more, less than Quantification limit value.

(Note 4) nd : Not detected

[1] Total Polychlorinated biphenyls (Total PCBs)/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 61/61 (Missing value : 0)

Detection Frequency (sample) : 48/48 (Missing value : 0)

Detection limit : \*3.3

Quantification limit : \*12

	Aggregated value
Geometric mean	89
Median	90
Maximum	340
Minimum	27

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	34	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	30	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	71	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	60	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	63	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	87	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	110	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	220	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	39	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	250	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	200	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	64	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	150	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	33	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	140	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	73	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	68	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	150	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	74	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	200	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	94	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	190	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	90	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	32	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	110	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	160	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	110	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	120	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	89	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	120	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	340	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	88	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	110	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	31	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	64	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	27	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) \*: Indicates the sum value of the Quantification [Detection] limits of each congeners.

[1-1] Monochlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.06

	Aggregated value
Geometric mean	9.8
Median	9.8
Maximum	32
Minimum	1.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	7.8	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	7.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	8.4	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	4.3	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	9.0	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	16	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	19	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	20	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	1.6	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	32	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	31	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	4.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	15	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	6.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	8.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	8.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	11	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	14	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	11	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	12	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	6.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	13	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	11	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	5.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	14	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	29	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	19	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	7.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	15	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	10	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	25	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	8.3	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	9.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	7.4	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	5.1	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	1.3	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-2] Dichlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.4

	Aggregated value
Geometric mean	26
Median	27
Maximum	73
Minimum	7.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	9.5	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	7.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	34	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	25	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	22	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	26	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	33	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	55	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	17	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	73	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	56	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	17	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	51	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	11	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	46	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	20	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	23	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	45	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	18	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	44	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	19	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	49	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	42	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	9.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	32	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	46	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	30	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	32	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	24	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	31	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	47	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	26	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	27	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	11	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	20	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	7.3	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-3] Trichlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	24
Median	24
Maximum	72
Minimum	6.5

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	9.5	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	6.7	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	14	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	16	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	16	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	26	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	32	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	68	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	12	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	72	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	51	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	22	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	43	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	8.8	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	50	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	20	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	19	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	43	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	20	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	66	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	23	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	68	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	19	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	9.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	25	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	48	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	25	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	33	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	23	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	34	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	57	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	27	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	34	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	6.5	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	17	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	11	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-4] Tetrachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.5

	Aggregated value
Geometric mean	14
Median	14
Maximum	46
Minimum	3.6

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	4.3	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	4.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	8.1	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	7.9	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	8.0	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	12	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	14	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	46	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	5.1	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	42	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	35	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	12	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	19	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	4.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	20	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	14	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	9.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	25	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	14	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	43	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	32	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	45	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	10	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	4.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	20	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	26	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	22	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	24	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	14	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	21	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	45	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	16	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	24	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	3.6	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	12	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	4.8	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-4-1] 3,3',4,4'-Tetrachlorobiphenyl (#77) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.097
Median	0.090
Maximum	0.39
Minimum	tr(0.03)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.04	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.06	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.05	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.07	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.08	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.09	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.22	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.04	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.28	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.22	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.08	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.14	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.10	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.12	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.06	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.18	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.08	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.20	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.09	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.15	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.06	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.07	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.15	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.21	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.20	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.17	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.09	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.10	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.39	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.09	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.15	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.03)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.08	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.04	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

[1-4-2] 3,4,4',5-Tetrachlorobiphenyl (#81) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 26/36 (Missing value : 0)

Detection Frequency (sample) : 26/36 (Missing value : 0)

Detection limit : 0.009

Quantification limit : 0.022

	Aggregated value
Geometric mean	nd
Median	tr(0.010)
Maximum	0.040
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.010)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.010)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.010)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.020)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.020)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.020)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.010)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.010)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.010)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.010)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.010)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.010)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.010)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.010)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.010)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.010)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.010)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.010)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.010)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.010)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.010)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.040	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.010)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.010)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.010)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.010)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[1-5] Pentachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.09

Quantification limit : 0.24

	Aggregated value
Geometric mean	7.0
Median	7.3
Maximum	39
Minimum	1.5

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.2	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	2.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	4.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	4.8	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	4.7	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	5.3	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	6.5	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	20	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	2.0	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	20	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	17	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	5.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	11	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	2.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	9.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	7.9	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	3.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	13	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	7.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	22	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	9.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	14	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	5.8	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	2.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	16	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	8.9	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	7.2	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	15	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	8.4	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	11	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	39	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	7.3	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	13	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	1.7	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	5.9	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-5-1] 2,3,3',4,4'-Pentachlorobiphenyl (#105) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.19
Median	0.21
Maximum	1.0
Minimum	tr(0.03)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.08	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.12	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.13	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.12	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.13	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.14	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.55	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.08	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.58	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.44	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.15	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.35	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.04	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.21	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.23	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.08	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.60	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.19	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.59	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.25	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.32	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.14	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.08	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.41	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.42	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.43	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.46	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.22	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.26	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	1.0	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.20	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.41	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.04	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.16	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[1-5-2] 2,3,4,4',5-Pentachlorobiphenyl (#114) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 24/36 (Missing value : 0)

Detection Frequency (sample) : 24/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.05

	Aggregated value
Geometric mean	tr(0.02)
Median	tr(0.02)
Maximum	0.10
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.02)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.02)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.06	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.06	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.04)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.04)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.02)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.05	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.06	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.03)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.02)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.04)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.03)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.03)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.04)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.02)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.10	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-5-3] 2,3',4,4',5-Pentachlorobiphenyl (#118) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	0.51
Median	0.56
Maximum	2.9
Minimum	0.07

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.16	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.14	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.31	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.40	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.30	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.34	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.38	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.5	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.16	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1.3	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.38	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.86	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.11	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.60	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.59	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.22	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.4	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.53	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	1.8	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.72	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.90	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.42	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.19	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	1.2	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.79	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.77	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	1.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.62	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.75	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	2.9	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.52	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1.1	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.11	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.42	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.07	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-5-4] 2',3,4,4',5-Pentachlorobiphenyl (#123) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 16/36 (Missing value : 0)

Detection Frequency (sample) : 16/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.06

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.06
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	nd	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.03)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.03)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.03)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.03)	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.03)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.02)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.02)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.03)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.06	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-5-5] 3,3',4,4',5-Pentachlorobiphenyl (#126) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 27/36 (Missing value : 0)

Detection Frequency (sample) : 27/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	tr(0.01)
Median	tr(0.01)
Maximum	0.06
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.01)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.01)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.01)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.01)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.03	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.02)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.02)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.01)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.01)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.01)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.02)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.01)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.01)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.01)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.06	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-6] Hexachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.12

	Aggregated value
Geometric mean	2.9
Median	2.8
Maximum	79
Minimum	0.63

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.93	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.93	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	1.6	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	1.8	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	2.4	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	1.8	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	2.2	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	7.1	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.78	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	7.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	5.6	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	2.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	7.7	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.73	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	2.9	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	2.6	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	6.6	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	2.8	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	7.1	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	3.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	4.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	2.2	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	1.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	5.7	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	3.0	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	2.6	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	6.5	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	3.5	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	5.0	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	79	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	2.8	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	6.0	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.75	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	3.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.63	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-6-1] 2,3,3',4,4',5-Hexachlorobiphenyl (#156) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 29/36 (Missing value : 0)

Detection Frequency (sample) : 29/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.04
Median	0.04
Maximum	0.51
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.03)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.02)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.03)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.03)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.03)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.09	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.08	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.07	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.08	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.04	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.13	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.03)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.07	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.04	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.03)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.06	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.04	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.05	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.07	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.04	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.51	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.04	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.10	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-6-2] 2,3,3',4,4',5'-Hexachlorobiphenyl (#157) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 29/36 (Missing value : 0)

Detection Frequency (sample) : 29/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	tr(0.01)
Median	tr(0.01)
Maximum	0.35
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.01)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.01)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.01)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.01)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.03	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.03	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.02)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.01)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.03	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.02)	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.01)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.01)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.02)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.01)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.01)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.01)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.03	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.35	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.01)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.03	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-6-3] 2,3',4,4',5,5'-Hexachlorobiphenyl (#167) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 32/36 (Missing value : 0)

Detection Frequency (sample) : 32/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	tr(0.02)
Median	tr(0.02)
Maximum	0.22
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.01)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.01)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.01)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.01)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.01)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.04	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.04	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.03	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.03	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.02)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.05	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.04	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.01)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.01)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.03	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.02)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.02)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.04	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.02)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.22	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.04	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.01)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-6-4] 3,3',4,4',5,5'-Hexachlorobiphenyl (#169) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 3/36 (Missing value : 0)

Detection Frequency (sample) : 3/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	tr(0.02)
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	nd	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.01)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	nd	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.01)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	nd	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-7] Heptachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.13

	Aggregated value
Geometric mean	0.66
Median	0.61
Maximum	47
Minimum	0.17

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.23	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.24	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.34	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.36	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.81	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.35	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.40	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.2	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.20	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.4	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1.0	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.51	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	3.7	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.18	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.37	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.41	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.39	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.6	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.55	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	1.1	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.68	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.99	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.46	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.24	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.96	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.76	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.63	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	1.4	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.75	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	2.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	47	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.58	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.98	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.17	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.97	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.18	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[1-7-1] 2,2',3,3',4,4',5-Heptachlorobiphenyl (#170) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.055
Median	0.060
Maximum	2.8
Minimum	tr(0.01)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.04	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.03)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.03)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.07	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.04	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.04	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.11	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.02)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.11	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.09	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.04	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.08	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.01)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.04	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.16	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.04	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.09	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.06	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.07	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.04	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.08	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.07	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.07	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.12	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.07	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.29	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	2.8	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.05	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.10	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.01)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.07	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.01)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[1-7-2] 2,2',3,4,4',5,5'-Heptachlorobiphenyl (#180) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	0.10
Median	0.11
Maximum	8.4
Minimum	tr(0.02)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.04	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.06	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.06	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.15	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.04	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.05	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.18	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.04	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.22	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.16	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.10	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.12	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.05	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.06	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.06	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.31	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.08	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.18	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.12	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.16	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.07	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.15	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.15	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.13	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.25	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.12	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.62	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	8.4	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.08	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.18	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.02)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.17	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[1-7-3] 2,3,3',4,4',5,5'-Heptachlorobiphenyl (#189) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 16/36 (Missing value : 0)

Detection Frequency (sample) : 16/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.05
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.01)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.01)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.01)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.01)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.01)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.01)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.01)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.01)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.01)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.01)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.01)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.01)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.01)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.05	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.01)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.01)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-8] Octachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 22/36 (Missing value : 0)

Detection Frequency (sample) : 22/36 (Missing value : 0)

Detection limit : 0.07

Quantification limit : 0.18

	Aggregated value
Geometric mean	tr(0.08)
Median	tr(0.08)
Maximum	5.6
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.11)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.07)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.16)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.18	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.13)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.07)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.17)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.23	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.08)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.12)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.09)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.10)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.12)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.09)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.08)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.15)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.09)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.52	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	5.6	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.08)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.12)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.13)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-9] Nonachlorobiphenyls/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 12/36 (Missing value : 0)

Detection Frequency (sample) : 12/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.09

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.20
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.03)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.03)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.03)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.04)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.03)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.03)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.04)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.20	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.03)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[1-10] Decachlorobiphenyl/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 13/36 (Missing value : 0)

Detection Frequency (sample) : 13/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.13
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.05	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.03)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.13	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.03)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.02)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.02)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.02)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.04	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[2] HCB (Hexachlorobenzene) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.06

Quantification limit : 0.14

	Aggregated value
Geometric mean	96
Median	99
Maximum	130
Minimum	67

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	68	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	77	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	100	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	110	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	110	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	110	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	95	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	130	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	90	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	110	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	110	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	80	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	91	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	70	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	94	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	100	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	84	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	110	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	110	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	83	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	77	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	110	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	67	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	100	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	99	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	110	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	89	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	110	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	99	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	120	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	110	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	98	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	99	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	85	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	89	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	99	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[11] HCHs/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : \*0.14

Quantification limit : \*0.34

	Aggregated value
Geometric mean	31
Median	32
Maximum	330
Minimum	7.6

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	15	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	11	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	25	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	23	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	30	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	28	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	25	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	54	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	99	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	43	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	24	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	35	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	38	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	14	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	40	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	41	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	19	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	39	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	23	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	42	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	20	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	31	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	45	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	8.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	27	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	62	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	51	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	33	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	33	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	52	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	330	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	73	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	48	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	14	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	19	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	7.6	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each isomers.

[11-1]  $\alpha$ -HCH/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.12

	Aggregated value
Geometric mean	21
Median	21
Maximum	230
Minimum	6.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	11	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	8.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	19	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	16	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	21	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	21	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	19	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	38	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	78	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	26	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	16	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	25	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	26	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	11	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	25	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	29	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	13	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	25	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	16	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	26	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	13	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	20	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	29	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	6.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	18	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	35	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	29	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	18	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	20	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	37	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	230	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	46	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	35	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	11	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	13	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	6.3	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[11-2]  $\beta$ -HCH/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.06

	Aggregated value
Geometric mean	2.3
Median	2.4
Maximum	29
Minimum	0.38

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.0	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.38	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	1.2	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	2.3	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	1.9	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	1.1	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	1.1	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.6	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.84	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	5.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1.4	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	2.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	4.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.80	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	4.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	2.9	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	4.4	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	2.0	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	6.2	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	1.8	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	2.8	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	5.0	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.49	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	3.0	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	5.5	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	5.7	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	3.1	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	3.9	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	4.0	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	29	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	6.2	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	4.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.51	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	2.1	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.42	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[11-3]  $\gamma$ -HCH (synonym:Lindane) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.12

	Aggregated value
Geometric mean	6.4
Median	7.0
Maximum	49
Minimum	0.88

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.2	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	1.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	4.5	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	3.9	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	6.1	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	5.6	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	4.5	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	14	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	20	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	11	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	6.0	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	7.0	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	7.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	2.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	9.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	8.1	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	4.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	9.1	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	4.7	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	8.5	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	4.8	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	7.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	9.9	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	1.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	5.6	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	21	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	15	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	11	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	8.3	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	9.7	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	49	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	18	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	8.0	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	2.5	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	4.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.88	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[11-4]  $\delta$ -HCH/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.46
Median	0.51
Maximum	19
Minimum	tr(0.02)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.20	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.33	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.38	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.53	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.55	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.37	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.44	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.29	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.93	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.27	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.53	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	1.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.21	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.70	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.75	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.41	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.74	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.47	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.85	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.25	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.49	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	1.1	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.05	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.29	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.73	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.93	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.54	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.88	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.85	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	19	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	2.4	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.96	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.15	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.29	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[14] Polybromodiphenyl ethers (B<sub>4</sub> - Br<sub>10</sub>) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 33/36 (Missing value : 0)

Detection Frequency (sample) : 33/36 (Missing value : 0)

Detection limit : \*0.5

Quantification limit : \*1.5

	Aggregated value
Geometric mean	3.7
Median	4.3
Maximum	18
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	1.6	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	11	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.9)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	6.7	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	8.7	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	14	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	8.2	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.6)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	15	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	9.6	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	2.2	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	18	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.8)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	11	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	3.9	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	10	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	8.4	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	4.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	5.8	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	8.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	3.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	3.2	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	4.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	16	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	4.1	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	2.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	4.3	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	2.7	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	16	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(1.0)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	4.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(1.4)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	6.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

(Note 6) \*: Indicates the sum value of the Quantification [Detection] limits of each congeners.

[14-1] Tetrabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.04

	Aggregated value
Geometric mean	0.25
Median	0.23
Maximum	5.5
Minimum	tr(0.03)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.03)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.42	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.18	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.07	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.38	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.22	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.55	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.26	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.64	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.30	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	5.5	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.06	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.23	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.29	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.2	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.94	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.24	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.13	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.23	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.19	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.33	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.12	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.31	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.16	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.23	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.09	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.18	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	3.9	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.24	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.84	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.06	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[14-1-1] 2,2',4,4'-Tetrabromodiphenyl ether (#47) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.01

Quantification limit : 0.03

	Aggregated value
Geometric mean	0.18
Median	0.16
Maximum	5.0
Minimum	tr(0.02)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.02)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.03	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.35	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.13	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.06	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.21	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.14	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.36	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.17	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.38	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.19	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	5.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.04	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.14	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.19	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.11	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.87	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.72	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.16	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.09	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.15	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.14	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.26	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.08	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.22	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.11	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.16	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.07	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.16	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	3.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.17	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.74	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.04	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.14	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[14-2] Pentabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 27/36 (Missing value : 0)

Detection Frequency (sample) : 27/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.12

	Aggregated value
Geometric mean	tr(0.10)
Median	tr(0.06)
Maximum	6.1
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.22	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.09)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.17	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.31	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.16	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.05)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.27	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.22	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	6.1	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.26	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.20	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.10)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.16	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.78	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.06)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.06)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.05)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.06)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.06)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.05)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.05)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.07)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.06)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.81	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.05)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1.0	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-2-1] 2,2',4,4',5-Pentabromodiphenyl ether (#99) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 30/36 (Missing value : 0)

Detection Frequency (sample) : 30/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.05

	Aggregated value
Geometric mean	0.061
Median	tr(0.04)
Maximum	4.7
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.02)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.15	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.08	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.12	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.25	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.12	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.04)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.19	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.13	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.03)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	4.7	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.11	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.14	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.04)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.10	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.56	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.03)	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.02)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.05	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.04)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.04)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.04)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.03)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.03)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.04)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.56	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.03)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.85	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.14	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-3] Hexabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 15/36 (Missing value : 0)

Detection Frequency (sample) : 15/36 (Missing value : 0)

Detection limit : 0.05

Quantification limit : 0.13

	Aggregated value
Geometric mean	tr(0.05)
Median	nd
Maximum	0.79
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.05)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.15	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.22	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.08)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.13	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.75	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.79	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.05)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.08)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.05)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	nd	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.05)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.20	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.23	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.06)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-3-1] 2,2',4,4',5,5'-Hexabromodiphenyl ether (#153) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 12/36 (Missing value : 0)

Detection Frequency (sample) : 12/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.07

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.35
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.03)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.04)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.08	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.05)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.06)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.35	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.08	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.03)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.06)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	nd	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.13	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.12	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-3-2] 2,2',4,4',5,6'-Hexabromodiphenyl ether (#154) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 10/36 (Missing value : 0)

Detection Frequency (sample) : 10/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.07

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.33
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.06)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.07	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.03)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.03)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.33	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.14	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.04)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.03)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	nd	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.08	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-4] Heptabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 24/36 (Missing value : 0)

Detection Frequency (sample) : 24/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	tr(0.1)
Median	tr(0.1)
Maximum	2.7
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.1)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.1)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	1.0	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	1.3	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.4	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.1)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.5	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	2.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.2)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.8	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.1)	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.1)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.1)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.2)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.1)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.1)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.3	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.9	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.1)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.1)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.1)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.1)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-4-1] 2,2',3,3',4,5',6-Heptabromodiphenyl ether (#175) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 7/36 (Missing value : 0)

Detection Frequency (sample) : 7/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.09
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.02)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.04	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	nd	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.02)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.09	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.02)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	nd	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-4-2] 2,2',3,4,4',5',6-Heptabromodiphenyl ether (#183) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 19/36 (Missing value : 0)

Detection Frequency (sample) : 19/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.07

	Aggregated value
Geometric mean	tr(0.04)
Median	tr(0.03)
Maximum	0.49
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.05)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.30	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.27	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.16	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.14	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.49	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.03)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.23	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.13	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.06)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.04)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.06)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.05)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.04)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.09	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.41	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.04)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.03)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected

[14-5] Octabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 32/36 (Missing value : 0)

Detection Frequency (sample) : 32/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	tr(0.2)
Median	tr(0.2)
Maximum	2.6
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.1)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.1)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.2)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.1)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	1.2	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	2.1	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.5	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.7	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.1)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.2)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	2.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.2)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.1	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.5	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.3	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(0.2)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.1)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.2)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.3	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.1)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.1)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.4	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.1)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.1)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.2)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.1)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.2)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-6] Nonabromodiphenyl ethers/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 34/36 (Missing value : 0)

Detection Frequency (sample) : 34/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	0.5
Median	0.7
Maximum	3.1
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.3	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	1.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.1)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	1.0	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.1)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	1.8	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	3.1	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.1	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.1)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1.5	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.9	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.2)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	1.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	2.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.5	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.7	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.9	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	1.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.5	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	1.6	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.5	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.7	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	2.2	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.2)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.3	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.2)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[14-7] Decabromodiphenyl ether/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 32/36 (Missing value : 0)

Detection Frequency (sample) : 32/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	1.8
Median	2.6
Maximum	14
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	1.2	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	9.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	5.2	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	4.0	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	6.4	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	5.4	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.2)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	11	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	5.9	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	1.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	4.5	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.5	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	2.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	2.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	4.9	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	3.6	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	1.0	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	4.2	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	6.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	2.2	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	2.1	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	3.1	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	14	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	3.1	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	2.2	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	2.7	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	2.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	6.8	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.3	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1.6	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.9	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	4.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected

[15] Perfluorooctane sulfonic acid (PFOS) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	3.8
Median	4.1
Maximum	7.8
Minimum	1.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	6.7	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	5.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	1.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	7.5	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	7.7	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	7.8	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	6.1	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	5.7	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	6.9	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.7	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	3.2	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	2.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	4.1	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	5.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	4.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	7.3	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	3.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	7.4	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	3.0	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	3.3	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	2.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	1.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	1.4	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	4.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	1.3	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	7.4	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	6.6	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	3.4	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	3.7	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	4.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	2.2	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	4.6	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	2.7	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	2.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	5.7	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[16] Perfluorooctanoic acid (PFOA) /air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.3

Quantification limit : 0.8

	Aggregated value
Geometric mean	14
Median	14
Maximum	46
Minimum	5.5

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	5.6	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	5.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	8.5	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	14	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	12	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	20	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	46	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	16	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	18	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	29	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	13	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	10	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	12	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	14	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	12	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	12	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	19	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	17	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	43	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	9.8	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	9.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	8.2	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	21	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	16	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	23	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	36	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	11	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	5.9	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	28	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	16	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	5.6	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	8.1	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	21	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	10	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	7.3	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[17] Pentachlorobenzene/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.04

Quantification limit : 0.09

	Aggregated value
Geometric mean	64
Median	64
Maximum	110
Minimum	36

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	42	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	39	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	69	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	55	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	61	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	75	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	84	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	110	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	43	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	93	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	90	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	42	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	100	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	48	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	79	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	71	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	76	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	77	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	62	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	58	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	41	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	88	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	49	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	58	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	100	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	65	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	47	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	64	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	68	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	80	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	99	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	62	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	64	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	48	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	56	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	36	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected

[19] 1,2,5,6,9,10-Hexabromocyclododecanes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 26/36 (Missing value : 0)

Detection Frequency (sample) : 26/36 (Missing value : 0)

Detection limit : \*0.4

Quantification limit : \*0.9

	Aggregated value
Geometric mean	tr(0.7)
Median	tr(0.8)
Maximum	5.7
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.3	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	1.2	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.4)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.6)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	1.3	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	3.0	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	2.2	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1.2	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1.8	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.4)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	2.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.5)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	5.7	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.6)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	1.1	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	1.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.6)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.7)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	3.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	2.1	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	1.1	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.8)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	1.0	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.5)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	1.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

(Note 6) \*: Indicates the sum value of the Quantification [Detection] limits of each isomers.

[19-1]  $\alpha$ -1,2,5,6,9,10-Hexabromocyclododecane/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 35/36 (Missing value : 0)

Detection Frequency (sample) : 35/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	0.5
Median	0.5
Maximum	4.1
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.0	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(0.2)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.1)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.3	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.3	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.8	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.4	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	1.7	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.8	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.9	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.4	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.2)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	4.1	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.5	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(0.2)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.6	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	1.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.4	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	1.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	1.1	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	tr(0.1)	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(0.1)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.2)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.7	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.8	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.2)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.1)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.4	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	1.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected

[19-2]  $\beta$ -1,2,5,6,9,10-Hexabromocyclododecane/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 26/36 (Missing value : 0)

Detection Frequency (sample) : 26/36 (Missing value : 0)

Detection limit : 0.08

Quantification limit : 0.21

	Aggregated value
Geometric mean	tr(0.13)
Median	tr(0.15)
Maximum	1.2
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.31	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.35	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(0.09)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.11)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.28	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.40	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.15)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.21	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.24	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(0.09)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.15)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.10)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	1.2	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.30	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	tr(0.12)	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.16)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.22	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(0.14)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.09)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.64	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.44	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.18)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(0.18)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.15)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.11)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.35	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[19-3]  $\gamma$ -1,2,5,6,9,10-Hexabromocyclododecane/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 15/36 (Missing value : 0)

Detection Frequency (sample) : 15/36 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	1.5
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(0.2)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.2)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.2)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1.2	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(0.3)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.2)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.7	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	1.5	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.4	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.3)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(0.3)	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.2)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	1.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.6	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.2)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[20] Total Polychlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : \*0.2

Quantification limit : \*0.6

	Aggregated value
Geometric mean	100
Median	130
Maximum	1,100
Minimum	6.5

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	67	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	35	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	43	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	67	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	52	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	140	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	160	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	190	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	26	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	180	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	270	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	56	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	130	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	60	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	140	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	190	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	59	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	150	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	64	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	120	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	69	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	74	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	500	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	12	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	160	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	1,100	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	390	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	470	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	380	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	180	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	230	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	210	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	89	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	22	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	64	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	6.5	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each congeners.

[20-1] Monochlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.08

	Aggregated value
Geometric mean	68
Median	81
Maximum	800
Minimum	4.0

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	53	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	28	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	30	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	45	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	33	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	95	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	120	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	120	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	5.8	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	120	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	170	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	32	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	83	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	40	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	92	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	150	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	34	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	91	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	48	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	78	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	52	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	47	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	440	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	7.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	100	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	800	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	220	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	350	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	290	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	130	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	150	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	140	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	60	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	14	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	31	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	4.0	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[20-2] Dichlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.06

	Aggregated value
Geometric mean	17
Median	17
Maximum	250
Minimum	1.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	9.2	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	4.9	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	5.9	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	13	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	7.7	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	19	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	19	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	31	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	3.0	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	33	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	40	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	13	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	30	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	14	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	17	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	30	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	9.6	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	25	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	7.6	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	15	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	8.3	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	12	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	35	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	2.4	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	30	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	250	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	140	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	94	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	61	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	29	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	33	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	48	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	17	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	4.2	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	15	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	1.3	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[20-3] Trichlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.06

	Aggregated value
Geometric mean	6.2
Median	7.1
Maximum	30
Minimum	0.69

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.8	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	1.0	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	3.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	3.1	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	5.3	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	11	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	8.5	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	19	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	10	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	12	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	24	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	3.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	12	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	4.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	8.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	6.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	6.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	9.4	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	3.7	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	8.9	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	3.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	6.4	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	8.4	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.96	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	9.6	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	30	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	16	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	7.3	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	12	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	4.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	18	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	10	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	4.8	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	2.4	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	5.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.69	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[20-4] Tetrachlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.04

Quantification limit : 0.11

	Aggregated value
Geometric mean	6.5
Median	7.7
Maximum	28
Minimum	0.40

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	1.8	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.64	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	3.2	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	5.2	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	4.9	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	10	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	7.4	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	20	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	7.1	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	13	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	28	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	5.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	8.0	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	1.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	16	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	6.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	7.1	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	15	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	4.2	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	13	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	4.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	6.5	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	15	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.93	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	16	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	19	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	11	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	12	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	13	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	9.2	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	20	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	9.9	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	5.5	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	1.5	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	10	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.40	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[20-5] Pentachlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.08

	Aggregated value
Geometric mean	1.0
Median	1.3
Maximum	5.7
Minimum	tr(0.05)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.36	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.08	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	0.50	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.97	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.50	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.90	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.99	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	2.8	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	0.21	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	2.9	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	2.9	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	1.8	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	1.2	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	0.23	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	2.3	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	1.2	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	5.7	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.76	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	2.4	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.77	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	1.6	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	1.7	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.14	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	3.1	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	1.6	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	1.3	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	4.4	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	1.8	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	2.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	4.7	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	2.0	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1.1	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.19	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	1.7	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.05)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[20-6] Hexachlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 33/36 (Missing value : 0)

Detection Frequency (sample) : 33/36 (Missing value : 0)

Detection limit : 0.03

Quantification limit : 0.07

	Aggregated value
Geometric mean	0.13
Median	0.16
Maximum	1.1
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	0.10	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.06)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	0.10	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.11	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.22	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.18	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.31	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	0.28	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.25	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	0.17	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	0.20	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	0.21	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	0.20	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	0.17	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	1.1	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	0.09	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	0.19	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	0.07	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	0.15	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	0.12	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.04)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	0.25	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	0.11	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	0.11	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	0.53	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	0.23	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	0.16	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.62	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.20	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	0.14	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.04)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	0.15	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[20-7] Heptachlorinated naphthalenes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 22/36 (Missing value : 0)

Detection Frequency (sample) : 22/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.04

	Aggregated value
Geometric mean	nd
Median	tr(0.02)
Maximum	0.08
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(0.03)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.07	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	0.06	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	0.05	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	0.04	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	0.04	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.03)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	0.04	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(0.02)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.02)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.02)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(0.02)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	0.08	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(0.02)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(0.02)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[20-8] Octachlorinated naphthalene/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 12/36 (Missing value : 0)

Detection Frequency (sample) : 12/36 (Missing value : 0)

Detection limit : 0.02

Quantification limit : 0.05

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.14
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	0.14	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(0.02)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(0.03)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.03)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(0.03)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(0.03)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(0.04)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(0.04)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.02)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.03)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	nd	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(0.02)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(0.02)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[21] Hexachlorobuta-1,3-diene/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 35/36 (Missing value : 0)

Detection Frequency (sample) : 104/108 (Missing value : 0)

Detection limit : 20

Quantification limit : 50

	Aggregated value
Geometric mean	1,500
Median	2,600
Maximum	5,800
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/15 - 10/16	2,300	LV
			10/16 - 10/17	2,600	
			10/17 - 10/18	2,300	
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	2,500	LV
			10/8 - 10/9	2,900	
			10/9 - 10/10	2,400	
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	3,000	LV
			10/1 - 10/2	180	
			10/2 - 10/3	60	
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/7 - 10/8	tr(20)	LV
			10/8 - 10/9	tr(20)	
			10/9 - 10/10	tr(20)	
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 9/25	2,500	LV
			9/25 - 9/26	2,400	
			9/26 - 9/27	2,400	
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/29 - 10/30	tr(30)	LV
			10/30 - 10/31	tr(40)	
			10/31 - 11/1	60	
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/30 - 10/31	3,200	LV
			10/31 - 11/1	3,700	
			11/1 - 11/2	4,100	
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/28 - 10/29	2,700	LV
			10/29 - 10/30	2,900	
			10/30 - 10/31	3,800	
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/4	2,800	LV
			10/4 - 10/5	2,500	
			10/5 - 10/6	2,500	
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	2,500	LV
			9/25 - 9/26	2,700	
			9/26 - 9/27	2,700	
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 10/30	240	LV
			10/30 - 10/31	3,600	
			10/31 - 11/1	4,100	
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	3,300	LV
			10/8 - 10/9	3,400	
			10/9 - 10/10	2,500	
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	2,400	LV
			10/16 - 10/17	2,300	
			10/17 - 10/18	2,300	
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	2,400	LV
			10/16 - 10/17	2,400	
			10/17 - 10/18	2,400	
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	3,600	LV
			10/29 - 10/30	3,400	
			10/30 - 10/31	3,700	
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/28 - 10/29	3,100	LV
			10/29 - 10/30	3,400	
			10/30 - 10/31	5,100	
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	3,200	LV
			10/29 - 10/30	3,400	
			10/30 - 10/31	5,800	
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 9/25	nd	LV
			9/25 - 9/26	2,600	
			9/26 - 9/27	2,800	
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	2,600	LV
			10/1 - 10/2	2,800	
			10/2 - 10/3	2,900	
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/15 - 10/16	2,700	LV
			10/16 - 10/17	2,500	
			10/17 - 10/18	2,700	

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	2,600	LV
			10/16 - 10/17	2,500	
			10/17 - 10/18	2,700	
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	3,900	LV
			10/8 - 10/9	4,200	
			10/9 - 10/10	2,600	
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	2,200	LV
			11/6 - 11/7	2,200	
			11/7 - 11/8	2,600	
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	2,900	LV
			10/29 - 10/30	5,200	
			10/30 - 10/31	3,600	
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	3,100	LV
			9/29 - 9/30	4,000	
			9/30 - 10/1	4,600	
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 9/25	2,500	LV
			9/25 - 9/26	2,400	
			9/26 - 9/27	2,700	
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 9/25	2,300	LV
			9/25 - 9/26	2,300	
			9/26 - 9/27	2,600	
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	2,600	LV
			10/1 - 10/2	2,500	
			10/2 - 10/3	2,900	
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/26	2,700	LV
			10/26 - 10/27	3,800	
			10/27 - 10/28	4,200	
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	4,700	LV
			10/8 - 10/9	4,300	
			10/9 - 10/10	3,800	
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(40)	LV
			9/25 - 9/26	50	
			9/26 - 9/27	60	
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 9/25	2,400	LV
			9/25 - 9/26	2,400	
			9/26 - 9/27	2,600	
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	2,600	LV
			9/25 - 9/26	2,500	
			9/26 - 9/27	2,800	
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/6	nd	LV
			11/6 - 11/7	nd	
			11/7 - 11/8	nd	
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	3,000	LV
			10/29 - 10/30	3,800	
			10/30 - 10/31	3,600	
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	2,700	LV
			9/25 - 9/26	2,700	
			9/26 - 9/27	2,400	

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) LV: Low volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected

[22] Pentachlorophenol and its salts and esters/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : \*0.3

Quantification limit : \*0.9

	Aggregated value
Geometric mean	34
Median	37
Maximum	200
Minimum	4.9

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	16	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	9.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	37	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	31	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	29	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	46	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	67	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	110	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	10	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	200	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	110	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	42	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	55	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	12	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	71	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	34	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	20	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	40	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	25	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	33	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	22	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	47	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	27	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	6.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	35	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	140	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	86	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	56	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	38	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	88	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	45	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	36	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	32	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	4.9	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	48	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	7.5	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) \* : Indicates the sum value of the Quantification [Detection] limits of each target chemicals.

[22-1] Pentachlorophenol/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.6

	Aggregated value
Geometric mean	4.1
Median	4.2
Maximum	22
Minimum	0.6

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	2.9	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	0.8	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	3.6	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	2.7	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	2.7	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	4.1	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	5.3	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	13	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	1.2	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	19	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	9.0	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	3.1	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	8.9	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	1.6	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	11	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	6.5	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	2.5	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	5.9	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	2.7	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	9.3	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	2.5	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	5.9	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	2.3	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	0.8	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	4.2	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	22	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	18	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	7.4	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	3.7	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	11	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	5.4	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	4.9	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	5.9	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	0.6	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	3.2	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	0.7	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[22-2] Pentachloroanisole/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 0.1

Quantification limit : 0.3

	Aggregated value
Geometric mean	30
Median	32
Maximum	180
Minimum	4.3

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	13	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	8.3	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	33	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	28	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	26	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	42	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	62	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	100	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	9.2	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	180	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	99	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	39	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	46	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	10	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	60	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	28	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	18	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	34	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	22	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	24	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	20	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	41	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	25	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	6.0	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	31	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	120	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	68	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	49	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	34	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	77	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	40	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	31	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	26	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	4.3	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	45	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	6.8	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

[23] Short-chain chlorinated paraffins/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 32/36 (Missing value : 0)

Detection Frequency (sample) : 32/36 (Missing value : 0)

Detection limit : \*400

Quantification limit : \*1,100

	Aggregated value
Geometric mean	tr(1,000)
Median	1,100
Maximum	5,000
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(400)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	1,700	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(1,000)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(600)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(700)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(600)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	3,400	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	1,100	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	3,000	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	2,800	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(500)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(900)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(500)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1,900	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	4,200	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(900)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	1,600	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(700)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	2,600	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	1,300	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(500)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	1,100	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	5,000	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	1,400	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	2,300	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(700)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	1,700	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	1,300	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(1,000)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	1,500	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(800)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	1,300	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

(Note 6) \*: Indicates the sum value of the Quantification [Detection] limits of each congeners.

[23-1] Chlorinated decanes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 100

Quantification limit : 400

	Aggregated value
Geometric mean	400
Median	400
Maximum	1,500
Minimum	tr(100)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(100)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(100)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	600	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	400	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(300)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	tr(300)	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(300)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1,500	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(300)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	900	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1,200	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(200)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(100)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(100)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	400	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(200)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	500	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	800	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(200)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	600	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(300)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	1,000	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	400	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(200)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	500	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	800	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	500	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	600	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	tr(300)	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	400	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	400	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(300)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(300)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	tr(200)	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	500	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(100)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[23-2] Chlorinated undecanes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 36/36 (Missing value : 0)

Detection Frequency (sample) : 36/36 (Missing value : 0)

Detection limit : 100

Quantification limit : 300

	Aggregated value
Geometric mean	400
Median	400
Maximum	2,300
Minimum	tr(100)

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	tr(200)	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	tr(100)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	500	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	300	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	tr(200)	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	300	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	tr(200)	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	1,200	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	700	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	1,500	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	1,000	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	tr(200)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	tr(100)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	tr(100)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	300	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	tr(200)	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	1,000	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	2,300	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	400	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	600	HV
			10/6 - 10/7		
			10/7 - 10/8		



Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(200)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	900	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	500	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	tr(100)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	400	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	900	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	700	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	900	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	300	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	900	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	500	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	400	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	700	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	500	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	500	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	tr(100)	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

[23-3] Chlorinated dodecanes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 23/36 (Missing value : 0)

Detection Frequency (sample) : 23/36 (Missing value : 0)

Detection limit : 90

Quantification limit : 260

	Aggregated value
Geometric mean	tr(140)
Median	tr(170)
Maximum	1,600
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	tr(220)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	tr(150)	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	nd	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	400	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	tr(110)	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	460	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	360	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	tr(130)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	280	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	690	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(200)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	280	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	tr(110)	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	460	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	260	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(160)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	1,600	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(180)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	590	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(210)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(230)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(230)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	330	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(190)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[23-4] Chlorinated tridecanes/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 19/36 (Missing value : 0)

Detection Frequency (sample) : 19/36 (Missing value : 0)

Detection limit : 80

Quantification limit : 250

	Aggregated value
Geometric mean	tr(90)
Median	tr(90)
Maximum	1,600
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	360	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	nd	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	250	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	tr(200)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	tr(170)	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	tr(130)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	420	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	tr(90)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	tr(130)	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	tr(190)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	tr(200)	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(90)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	1,600	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	tr(110)	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	270	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	tr(130)	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(180)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	tr(110)	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	tr(130)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	tr(110)	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr: Detection limit value and more, less than Quantification limit value.

(Note 5) nd: Not detected

[24] Dicofol/air (pg/m<sup>3</sup>)

Monitored year : 2019

Detection Frequency (site) : 5/36 (Missing value : 0)

Detection Frequency (sample) : 5/36 (Missing value : 0)

Detection limit : 0.2

Quantification limit : 0.4

	Aggregated value
Geometric mean	nd
Median	nd
Maximum	0.4
Minimum	nd

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hokkaido	1	Kamikawa General Subprefectural Bureau (Asahikawa City)	10/11 - 10/18	nd	MV
Sapporo City	2	Sapporo Art Park (Sapporo City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Iwate Pref.	3	Sugo Air Quality Monitoring Station (Takizawa City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Miyagi Pref.	4	Miyagi Prefectural Institute of Public Health and Environment (Sendai City)	10/4 - 10/11	nd	MV
Yamagata Pref.	5	Yamagata Institute of Environmental Sciences (Murayama City)	9/24 - 10/1	nd	MV
Ibaraki Pref.	6	Ibaraki Kasumigaura Environmental Science Center (Tsuchiura City)	10/25 - 11/1	nd	MV
Chiba Pref.	7	Ichihara-Matsuzaki Air Quality Monitoring Station (Ichihara City)	10/29 - 11/5	nd	MV
Tokyo Met.	8	Tokyo Metropolitan Research Institute for Environmental Protection (Koto Ward)	10/25 - 11/1	tr(0.2)	MV
	9	Chichijima Island (Ogasawara Village)	10/3 - 10/9	nd	MV
Kanagawa Pref.	10	Kanagawa Environmental Research Center (Hiratsuka City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Yokohama City	11	Yokohama Environmental Science Research Institute (Yokohama City)	10/29 - 11/5	nd	MV
Niigata Pref.	12	Oyama Air Quality Monitoring Station (Niigata City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Toyama Pref.	13	Tonami Air Quality Monitoring Station (Tonami City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Ishikawa Pref.	14	Ishikawa Prefectural Institute of Public Health and Environmental Science (Kanazawa City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Yamanashi Pref.	15	Yamanashi Prefectural Institute of Public Health and Environment (Kofu City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagano Pref.	16	Nagano Environmental Conservation Research Institute (Nagano City)	10/24 - 10/31	nd	MV
Gifu Pref.	17	Gifu Prefectural Research Institute for Health and Environmental Sciences (Kakamigahara City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Nagoya City	18	Chikusa Ward Heiwa Park (Nagoya City)	9/24 - 10/1	nd	MV
Mie Pref.	19	Mie Prefecture Health and Environment Research Institute (Yokkaichi City)	9/30 - 10/1	nd	HV
			10/1 - 10/2		
			10/2 - 10/3		
Osaka Pref.	20	Osaka Joint Prefectural Government Building, Building 2 Annex (Osaka City)	10/5 - 10/6	nd	HV
			10/6 - 10/7		
			10/7 - 10/8		

Local communities	No.	Monitored sites	Warm season		Air sampler
			Sampling dates	Measured value	
Hyogo Pref.	21	Hyogo Prefectural Environmental Research Center (Kobe City)	10/15 - 10/16	nd	HV
			10/16 - 10/17		
			10/17 - 10/18		
Kobe City	22	Kobe Institute of Health (Kobe City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Nara Pref.	23	Tenri Air Quality Monitoring Station (Tenri City)	11/5 - 11/6	nd	HV
			11/6 - 11/7		
			11/7 - 11/8		
Shimane Pref.	24	Oki National Acid Rain Observatory (Okinoshima Town)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Hiroshima City	25	Hiroshima City Kokutaiji Junior High School (Hiroshima City)	9/28 - 9/29	tr(0.2)	HV
			9/29 - 9/30		
			9/30 - 10/1		
Yamaguchi Pref.	26	Yamaguchi Prefectural Institute of Public Health and Environment (Yamaguchi City)	9/24 - 10/1	nd	MV
	27	Hagi Health and Welfare Center (Hagi City)	9/24 - 10/1	nd	MV
Tokushima Pref.	28	Tokushima Prefectural Public Health, Pharmaceutical and Environmental Sciences Center (Tokushima City)	9/30 - 10/1	tr(0.2)	HV
			10/1 - 10/2		
			10/2 - 10/3		
Kagawa Pref.	29	Kagawa Prefectural Public Swimming Pool (Takamatsu City)	10/25 - 10/28	nd	MV
Ehime Pref.	30	Ehime Prefectural Government Nanyo Regional Office (Uwajima City)	10/7 - 10/8	nd	HV
			10/8 - 10/9		
			10/9 - 10/10		
Fukuoka Pref.	31	Omura City Government Building (Omura City)	9/24 - 9/25	tr(0.2)	HV
			9/25 - 9/26		
			9/26 - 9/27		
Saga Pref.	32	Saga Prefectural Environmental Research Center (Saga City)	9/24 - 10/1	0.4	MV
Kumamoto Pref.	33	Kumamoto Prefectural Institute of Public Health and Environmental Science (Udo City)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		
Miyazaki Pref.	34	Miyazaki Prefectural Institute for Public Health and Environment (Miyazaki City)	11/5 - 11/12	nd	MV
Kagoshima Pref.	35	Kagoshima Prefectural Institute for Environmental Research and Public Health (Kagoshima City)	10/28 - 10/29	nd	HV
			10/29 - 10/30		
			10/30 - 10/31		
Okinawa Pref.	36	Cape Hedo (Kunigami Village)	9/24 - 9/25	nd	HV
			9/25 - 9/26		
			9/26 - 9/27		

(Note 1) Detection frequency (site) is based on the number of sites, thus means (the number of detected sites/the number of surveyed sites).

Detection frequency (sample) is based on the number of samples, thus means (the number of detected samples/the number of surveyed samples).

(Note 2) Data treated as detected means detection limit value and more.

(Note 3) HV: High volume air sampler, MV: Medium volume air sampler.

(Note 4) tr : Detection limit value and more, less than Quantification limit value.

(Note 5) nd : Not detected