

Table 1. Summary data on dose-finding study of 2-ethylhexyl vinyl ether
 [Non-activation method : -S9]

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]													
		TA100			TA1535			WP2uvrA			TA98			TA1537	
2-ethylhexyl vinyl ether	0 a)	129 [132 ± 4]	130 ± 4]	136 [14 ± 1]	15 ± 1]	13 [22 ± 1]	22 ± 1]	24 ± 1]	22 ± 1]	20 ± 1]	20 ± 1]	16 ± 2]	7 ± 1]	8 ± 1]	7 ± 1]
	8.19	107 [108 ± 7]	101 ± 7]	115 [11 ± 2]	8 ± 2]	12 [22 ± 1]	22 ± 1]	22 ± 1]	20 ± 1]	20 ± 1]	18 ± 1]	19 ± 1]	7 ± 1]	9 ± 1]	8 ± 1]
	20.5	75* [71 ± 3]	69* ± 3]	70* [7 ± 3]	7* ± 3]	8* [20 ± 2]	20 ± 2]	21 ± 2]	18 ± 2]	15* ± 2]	18* ± 2]	15* ± 2]	6* ± 2]	8* ± 2]	7* ± 2]
	51.2	79* [70 ± 8]	64* ± 8]	66* [5 ± 2]	5* ± 2]	9* [17 ± 2]	18 ± 2]	14 ± 2]	18 ± 2]	16* ± 2]	16* ± 2]	13* ± 2]	5* ± 2]	5* ± 2]	5* ± 2]
	128	59* [64 ± 4]	65* ± 4]	67* [7 ± 1]	6* ± 1]	6* [22 ± 1]	22 ± 1]	18 ± 1]	20 ± 1]	16* ± 1]	18* ± 1]	18* ± 1]	5* ± 1]	6* ± 1]	3* ± 1]
320	23* [30 ± 9]	27* ± 9]	40* [7 ± 1]	5* ± 1]	7* [21 ± 1]	21 ± 1]	24 ± 1]	24 ± 1]	18* ± 1]	12* ± 1]	12* ± 1]	6* ± 1]	3* ± 1]	4* ± 1]	
800	18* [18 ± 3]	20* ± 3]	15* [7 ± 2]	4* ± 2]	6* [20 ± 2]	20 ± 2]	19 ± 2]	22 ± 2]	12* ± 2]	13* ± 2]	12* ± 2]	5* ± 2]	5* ± 2]	3* ± 2]	
2000	13* [15 ± 4]	12* ± 4]	20* [6 ± 1]	6* ± 1]	7* [20 ± 3]	20 ± 3]	18 ± 3]	23 ± 3]	13* ± 3]	8* ± 3]	8* ± 3]	1* ± 3]	4* ± 3]	4* ± 3]	
5000	16* [17 ± 3]	21* ± 3]	15* [6 ± 1]	8* ± 1]	6* [16 ± 1]	16* ± 1]	14* ± 1]	15* ± 1]	13* ± 1]	14* ± 1]	17* ± 1]	3* ± 1]	4* ± 1]	4* ± 1]	
Positive control	806 [825 ± 22]	820 ± 22]	849 b) [589 ± 554]	511 ± 40]	562 c) [104 ± 119]	130 ± 13]	122 b) ± 13]	530 ± 37]	535 d) ± 37]	596 ± 37]	530 ± 37]	352 ± 46]	282 ± 46]	266 e) ± 46]	

a): Negative control (Dimethyl sulfoxide, 100 µL/plate)

b): AF-2; 2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide, 0.01 µg/plate c): NaN₃; Sodium azide, 0.5 µg/plate

d): AF-2, 0.1 µg/plate e): 9-AA; 9-Aminoacridine hydrochloride, 80 µg/plate

* : Growth inhibition was observed.

Table 2. Summary data on dose-finding study of 2-ethylhexyl vinyl ether
[Activation method : +S9]

Compound	Dose ($\mu\text{g}/\text{plate}$)	Revertant colonies per plate [Mean \pm S.D.]												
		TA100	TA1535	WP2uvrA	TA98	TA1537								
2-ethylhexyl vinyl ether	0 a)	104 [113 \pm 9]	114 [133 \pm 3]	15 [13 \pm 3]	10 [10 \pm 2]	13 [13 \pm 2]	25 [24 \pm 2]	26 [26 \pm 2]	28 [28 \pm 2]	34 [34 \pm 2]	33 [33 \pm 2]	16 [16 \pm 2]	14 [14 \pm 2]	21 [21 \pm 2]
	8.19	116 [117 \pm 3]	115 [115 \pm 3]	17 [15 \pm 2]	14 [14 \pm 2]	13 [13 \pm 2]	21 [21 \pm 1]	22 [22 \pm 1]	33 [33 \pm 1]	29 [29 \pm 1]	29 [29 \pm 1]	15 [15 \pm 1]	13 [13 \pm 1]	14 [14 \pm 1]
	20.5	124 [117 \pm 7]	111 [111 \pm 7]	15 [12 \pm 2]	11 [11 \pm 2]	11 [11 \pm 2]	16 [16 \pm 2]	20 [20 \pm 2]	27 [27 \pm 2]	26 [26 \pm 2]	24 [24 \pm 2]	14 [14 \pm 2]	11 [11 \pm 2]	14 [14 \pm 2]
	51.2	116 [114 \pm 7]	119 [119 \pm 7]	106 [106 \pm 7]	15 [15 \pm 2]	18 [18 \pm 2]	21 [21 \pm 2]	18 [18 \pm 2]	30 [30 \pm 2]	24 [24 \pm 2]	27 [27 \pm 2]	14 [14 \pm 2]	16 [16 \pm 2]	21 [21 \pm 2]
	128	74* [73 \pm 6]	79* [79 \pm 6]	67* [67 \pm 6]	9* [9 \pm 2]	5* [5 \pm 2]	8* [8 \pm 2]	23 [23 \pm 3]	25 [25 \pm 3]	23* [23 \pm 3]	20* [20 \pm 3]	13* [13 \pm 3]	15* [15 \pm 3]	9* [9 \pm 3]
320	63* [73 \pm 9]	79* [79 \pm 9]	76* [76 \pm 9]	8* [8 \pm 2]	9* [9 \pm 2]	9* [9 \pm 2]	20 [20 \pm 4]	27 [27 \pm 4]	19* [19 \pm 4]	12* [12 \pm 4]	19* [19 \pm 4]	7* [7 \pm 3]	12* [12 \pm 3]	9* [9 \pm 3]
800	67* [70 \pm 4]	70* [70 \pm 4]	74* [74 \pm 4]	6* [6 \pm 1]	6* [6 \pm 1]	5* [5 \pm 1]	19 [19 \pm 1]	20 [20 \pm 1]	20* [20 \pm 1]	16* [16 \pm 1]	20* [20 \pm 1]	9* [9 \pm 1]	6* [6 \pm 1]	10* [10 \pm 1]
2000	53* [56 \pm 3]	59* [59 \pm 3]	55* [55 \pm 3]	6* [6 \pm 1]	9* [9 \pm 1]	7* [7 \pm 1]	16* [16 \pm 1]	20* [20 \pm 1]	22* [22 \pm 1]	20* [20 \pm 1]	17* [17 \pm 1]	10* [10 \pm 1]	7* [7 \pm 1]	8* [8 \pm 1]
5000	48* [56 \pm 8]	64* [64 \pm 8]	56* [56 \pm 8]	9* [9 \pm 1]	10* [10 \pm 1]	8* [8 \pm 1]	20* [20 \pm 1]	22* [22 \pm 1]	19* [19 \pm 1]	21* [21 \pm 1]	20* [20 \pm 1]	8* [8 \pm 1]	6* [6 \pm 1]	6* [6 \pm 1]
Positive control	808 [814 \pm 50]	768 [768 \pm 50]	867 b) [867 \pm 50]	286 [286 \pm 17]	252 [252 \pm 17]	276 c) [276 \pm 17]	522 [522 \pm 14]	501 [501 \pm 14]	495 d) [495 \pm 14]	360 [360 \pm 20]	337 e) [337 \pm 20]	121 [121 \pm 131]	133 [133 \pm 131]	138 c) [138 \pm 9]

a): Negative control (Dimethyl sulfoxide, 100 $\mu\text{L}/\text{plate}$)

b): 2-AA; 2-Aminoanthracene, 1 $\mu\text{g}/\text{plate}$ c): 2-AA, 2 $\mu\text{g}/\text{plate}$ d): 2-AA, 10 $\mu\text{g}/\text{plate}$ e): 2-AA, 0.5 $\mu\text{g}/\text{plate}$

* : Growth inhibition was observed.

Table 3. Summary data on dose-finding study of 2-ethylhexyl vinyl ether (Additional study)
 [Non-activation method : -S9] Exp. No. 9046 (115-197)

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]									
		TA100	TA1535	WP2uvza	TA98	TA1537	TA100	TA1535	WP2uvza	TA98	TA1537
2-ethylhexyl vinyl ether	0 a)	105 [110 ± 6]	116 [12 ± 1]	108 [12 ± 1]	12 [12 ± 1]	13 [12 ± 1]	25 [22 ± 3]	21 [22 ± 3]	20 [20 ± 3]	7 [9 ± 2]	11 [9 ± 2]
	0.781	128 [119 ± 9]	111 [10 ± 2]	119 [10 ± 2]	10 [10 ± 2]	9 [10 ± 2]	27 [24 ± 4]	26 [24 ± 4]	20 [20 ± 4]	10 [7 ± 3]	6 [7 ± 3]
	1.56	115 [110 ± 5]	109 [11 ± 2]	105 [11 ± 2]	9 [11 ± 2]	12 [14 ± 2]	21 [23 ± 3]	26 [23 ± 3]	23 [23 ± 3]	13 [10 ± 3]	8 [10 ± 3]
	3.13	118 [111 ± 6]	107 [14 ± 2]	109 [14 ± 2]	16 [14 ± 2]	13 [14 ± 2]	27 [26 ± 3]	23 [26 ± 3]	28 [28 ± 3]	12 [11 ± 2]	9 [11 ± 2]
12.5	100 [106 ± 5]	109 [11 ± 1]	109 [11 ± 1]	12 [11 ± 1]	11 [11 ± 1]	27 [25 ± 2]	25 [25 ± 2]	24 [24 ± 2]	12 [11 ± 2]	11 [11 ± 2]	
	92* [96 ± 3]	97* [8 ± 2]	10* [8 ± 2]	8* [8 ± 2]	7* [8 ± 2]	22 [22 ± 2]	23 [22 ± 2]	20 [20 ± 2]	3* [5 ± 2]	6* [5 ± 2]	
25.0	72* [69 ± 3]	66* [6 ± 1]	69* [6 ± 1]	5* [6 ± 1]	7* [6 ± 1]	16* [17 ± 2]	15* [17 ± 2]	19* [19 ± 2]	7* [6 ± 2]	4* [6 ± 2]	
	60* [66 ± 6]	72* [8 ± 1]	65* [8 ± 1]	7* [8 ± 1]	8* [8 ± 1]	12* [13 ± 1]	14* [13 ± 1]	13* [13 ± 1]	3* [4 ± 1]	5* [4 ± 1]	
Positive control	732 [769 ± 33]	797 [778 b)	778 b) [638 ± 9]	628 [638 ± 9]	646 [640 c)	638 [631 ± 33]	660 [631 ± 33]	595 d) [259 ± 43]	209 [259 ± 43]	285 [283 e)	

a): Negative control (Dimethyl sulfoxide, 100 µl/plate)
 b): AF-2; 2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide, 0.01 µg/plate c): NaN₃; Sodium azide, 0.5 µg/plate
 d): AF-2, 0.1 µg/plate e): 9-AA; 9-Aminoacridine hydrochloride, 80 µg/plate
 * : Growth inhibition was observed.

Table 4. Summary data on dose-finding study of 2-ethylhexyl vinyl ether (Additional study)
 [Activation method : +S9]

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]											
		TA100	TA1535	WP2uvra	TA98	TA1537							
2-ethylhexyl vinyl ether	0 a)	121 [117 ± 4]	113 [113 ± 2]	12 [13 ± 2]	15 [15 ± 2]	33 [30 ± 3]	28 [28 ± 3]	29 [29 ± 3]	13 [13 ± 2]	17 [17 ± 2]	16 [16 ± 2]		
	6.25	110 [112 ± 4]	109 [109 ± 2]	11 [11 ± 2]	13 [13 ± 2]	25 [30 ± 5]	31 [31 ± 2]	34 [34 ± 2]	13 [13 ± 2]	15 [15 ± 2]	12 [12 ± 2]		
	12.5	105 [105 ± 2]	106 [106 ± 2]	12 [12 ± 2]	9 [9 ± 2]	29 [29 ± 3]	32 [32 ± 3]	27 [27 ± 3]	17 [17 ± 3]	19 [19 ± 3]	11 [11 ± 3]		
	25.0	102 [106 ± 4]	107 [107 ± 4]	11 [11 ± 3]	10 [10 ± 3]	28 [29 ± 2]	31 [31 ± 2]	29 [29 ± 2]	17 [17 ± 2]	16 [16 ± 2]	14 [14 ± 2]		
	50.0	107 [110 ± 3]	111 [111 ± 3]	12 [12 ± 3]	16 [16 ± 3]	34 [31 ± 3]	28 [28 ± 3]	30 [30 ± 3]	16 [16 ± 3]	12 [12 ± 3]	14 [14 ± 3]		
100	85* [88 ± 3]	92* [92 ± 3]	87* [87 ± 3]	6* [6 ± 2]	9* [9 ± 2]	28 [28 ± 3]	25 [25 ± 3]	31 [31 ± 3]	11* [11 ± 3]	13* [13 ± 3]	9* [9 ± 3]		
200	74* [70 ± 4]	68* [68 ± 4]	68* [68 ± 4]	7* [7 ± 2]	7* [7 ± 2]	25* [25 ± 3]	27* [27 ± 3]	22* [22 ± 3]	10* [10 ± 3]	8* [8 ± 3]	8* [8 ± 3]		
Positive control		1048 [1016 ± 34]	980 [980 ± 34]	1021 b) [1021 ± 34]	370 [374 ± 17]	359 [359 ± 17]	392 c) [392 ± 17]	341 [367 ± 37]	409 [409 ± 37]	350 e) [350 ± 37]	106 [117 ± 12]	115 [115 ± 12]	130 c) [130 ± 12]

a): Negative control (Dimethyl sulfoxide, 100 µL/plate)
 b): 2-AA; 2-Aminoanthracene, 1 µg/plate c): 2-AA, 2 µg/plate e): 2-AA, 0.5 µg/plate
 * : Growth inhibition was observed.

Table 5. Summary data on bacterial reverse mutation test of 2-ethylhexyl vinyl ether
 [Non-activation method : -S9] Exp. No. 9046 (115-197)

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]														
		TA100			TA1535			WP2uvrA			TA98			TA1537		
2-ethylhexyl vinyl ether	0 a)	107	106	106	11	12	13	21	26	22	25	20	24	12	8	12
		[106 ± 1]	[12 ± 1]	[106 ± 1]	[12 ± 1]	[12 ± 1]	[13 ± 1]	[23 ± 1]	[23 ± 1]	[22 ± 1]	[23 ± 1]	[23 ± 1]	[23 ± 1]	[11 ± 1]	[11 ± 1]	[11 ± 1]
	0.610	115	110	108	10	13	12							6	12	9
		[111 ± 4]	[12 ± 4]	[108 ± 4]	[12 ± 2]	[13 ± 2]	[12 ± 2]							[9 ± 3]	[12 ± 3]	[9 ± 3]
	1.22	106	112	101	9	10	9				20	26	21	10	13	11
		[106 ± 6]	[112 ± 6]	[101 ± 6]	[9 ± 1]	[10 ± 1]	[9 ± 1]				[22 ± 3]	[26 ± 3]	[21 ± 3]	[11 ± 2]	[13 ± 2]	[11 ± 2]
	2.44	121	111	106	13	15	11				21	20	22	14	11	11
		[113 ± 8]	[111 ± 8]	[106 ± 8]	[13 ± 2]	[15 ± 2]	[11 ± 2]				[21 ± 1]	[20 ± 1]	[22 ± 1]	[12 ± 2]	[11 ± 2]	[11 ± 2]
	4.88	104	110	106	14	14	11				21	21	21	10	10	8
		[107 ± 3]	[110 ± 3]	[106 ± 3]	[13 ± 2]	[14 ± 2]	[11 ± 2]				[21 ± 0]	[21 ± 0]	[21 ± 0]	[9 ± 1]	[10 ± 1]	[8 ± 1]
	9.77	93*	83*	96*	6*	11*	8*				25	21	20	9*	6*	9*
		[91 ± 7]	[83 ± 7]	[96 ± 7]	[8 ± 3]	[11 ± 3]	[8 ± 3]				[22 ± 3]	[21 ± 3]	[20 ± 3]	[8 ± 2]	[6 ± 2]	[9 ± 2]
19.5	72*	67*	79*	6*	5*	4*				19*	20*	20*	7*	7*	6*	
	[73 ± 6]	[67 ± 6]	[79 ± 6]	[5 ± 1]	[5 ± 1]	[4 ± 1]				[20 ± 1]	[20 ± 1]	[20 ± 1]	[7 ± 1]	[7 ± 1]	[6 ± 1]	
39.1										16*	14*	18*				
										[16 ± 2]	[14 ± 2]	[18 ± 2]				

a): Negative control (Dimethyl sulfoxide, 100 µL/plate)
 * : Growth inhibition was observed.

Table 5. -Continued

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]					
		TA100	TA1535	WP2uvrA	TA98	TA1537	
2-ethylhexyl vinyl ether	156			20 24 24			
				[23 ± 2]			
313				22 20 21			
				[21 ± 1]			
625				20 25 25			
				[23 ± 3]			
1250				22 20 21			
				[21 ± 1]			
2500				21 22 22			
				[22 ± 1]			
5000				12* 14* 14*			
				[13 ± 1]			
Positive control		827 768 790 b)	596 609 602 c)	121 106 118 b)	713 728 695 d)	254 231 244 e)	
		[795 ± 30]	[602 ± 7]	[115 ± 8]	[712 ± 17]	[243 ± 12]	

b): AF-2; 2-(2-Furyl)-3-(5-nitro-2-furyl)acrylamide, 0.01 µg/plate c): NaN₃; Sodium azide, 0.5 µg/plate

d): AF-2, 0.1 µg/plate e): 9-AA; 9-Aminoacridine hydrochloride, 80 µg/plate

* : Growth inhibition was observed.

Table 6. Summary data on bacterial reverse mutation test of 2-ethylhexyl vinyl ether
[Activation method: +S9]

Compound	Dose (µg/plate)	Revertant colonies per plate [Mean ± S.D.]														
		TA100			TA1535			WP2uvrA			TA98			TA1537		
2-ethylhexyl vinyl ether	0 a)	112 [110 ± 5]	104 [110 ± 5]	114 [112 ± 2]	12 [12 ± 2]	14 [12 ± 2]	10 [24 ± 2]	25 [24 ± 2]	26 [36 ± 2]	35 [36 ± 2]	38 [21 ± 2]	36 [21 ± 2]	23 [21 ± 2]	21 [21 ± 2]	20 [21 ± 2]	
	4.88	109 [114 ± 5]	113 [114 ± 5]	119 [112 ± 2]	14 [12 ± 2]	11 [12 ± 2]	12 [12 ± 2]						16 [18 ± 2]	19 [18 ± 2]	20 [18 ± 2]	
	9.77	115 [117 ± 4]	122 [114 ± 4]	114 [111 ± 1]	11 [11 ± 1]	10 [11 ± 1]	11 [11 ± 1]	34 [33 ± 2]	31 [33 ± 2]	34 [20 ± 2]	20 [20 ± 2]	18 [20 ± 2]	22 [20 ± 2]	20 [20 ± 2]	18 [20 ± 2]	
	19.5	118 [119 ± 4]	124 [116 ± 4]	116 [12 ± 3]	9 [12 ± 3]	14 [12 ± 3]	12 [12 ± 3]	29 [32 ± 3]	32 [32 ± 3]	35 [20 ± 2]	21 [20 ± 2]	18 [20 ± 2]	20 [20 ± 2]	20 [20 ± 2]	20 [20 ± 2]	
	39.1	126 [120 ± 5]	117 [117 ± 5]	117 [12 ± 2]	13 [12 ± 2]	12 [12 ± 2]	10 [12 ± 2]	37 [35 ± 3]	31 [35 ± 3]	37 [19 ± 2]	18 [19 ± 2]	21 [19 ± 2]	18 [19 ± 2]	18 [19 ± 2]	18 [19 ± 2]	
78.1	92* [86 ± 6]	85* [81 ± 6]	81* [9 ± 2]	10* [9 ± 2]	7* [9 ± 2]	9* [9 ± 2]	23 [25 ± 3]	28 [25 ± 3]	24 [35 ± 4]	31 [18 ± 2]	16* [18 ± 2]	20* [18 ± 2]	19* [18 ± 2]	19* [18 ± 2]		
156	74* [80 ± 6]	85* [80 ± 6]	80* [8 ± 2]	8* [8 ± 2]	10* [8 ± 2]	6* [8 ± 2]	22 [22 ± 1]	23 [27 ± 1]	21 [27 ± 1]	28* [26 ± 3]	26* [26 ± 3]	12* [14 ± 2]	16* [14 ± 2]	13* [14 ± 2]		
313							26 [24 ± 2]	23 [26 ± 3]	24 [26 ± 3]	23* [26 ± 3]	26* [26 ± 3]					
625							29 [27 ± 2]	26 [27 ± 2]	26 [27 ± 2]							
1250							23 [23 ± 1]	23 [23 ± 1]	22 [23 ± 1]							
2500							19* [19 ± 2]	20* [19 ± 2]	17* [19 ± 2]							
Positive control		1195 [1156 ± 42]	1163 [1111 b]	1111 b)	434 [436 ± 23]	460 [436 ± 23]	527 [513 ± 16]	516 [513 ± 16]	495 d)	403 [423 ± 19]	424 [423 ± 19]	441 e)	143 [158 ± 27]	190 [158 ± 27]	142 c)	

a): Negative control (Dimethyl sulfoxide, 100 µL/plate)

b): 2-AA; 2-Aminoanthracene, 1 µg/plate c): 2-AA, 2 µg/plate d): 2-AA, 10 µg/plate e): 2-AA, 0.5 µg/plate

* : Growth inhibition was observed.