

Act on Preventing Environmental Pollution of Mercury - Toward Further Promotion of Mercury Management -

<Introduction>

Mercury is the only metallic element in a liquid form at room temperature. It is highly volatile, and once emitted from various sources, it does not decompose and circulate globally. Mercury and some of its compounds are neurotoxic and may harm human health. While the amount of mercury used in developed countries is decreasing, it is still widely used in developing countries. Due to its high risk of environmental pollution and health damages, global efforts need to be made against mercury pollution.

Under such circumstances, the momentum to promote mercury management rose globally, and the Minamata Convention on Mercury (hereinafter referred to as the “Minamata Convention”) to protect human health and the environment from mercury pollution was adopted in October 2013 in Japan. The Minamata Convention comprehensively regulates the entire life cycle of mercury from mining, trade, use, emissions, release, and through to disposal.

This brochure describes measures and actions business operators have to take in accordance with **the Act on Preventing Environmental Pollution of Mercury** (Act No. 42 of 2015, hereinafter referred to as **the “Mercury Pollution Prevention Act”**) that was established for ensuring the reliable and smooth implementation of the Minamata Convention.

<Principal Measures and Target Group of Mercury Pollution Prevention Act>

Target Groups	Descriptions of Measures (relevant provisions)
Persons manufacturing mercury-using products	Prohibit in principle the manufacturing, etc., of specified mercury-using products (Articles 5-12, Supplementary Provisions Article 3) (Enforced either on January 1, 2018 or December 31, 2020 depending on the product type)
	Provide information on mercury-using products (Article 18) (Enforced on December 18, 2016)
Persons storing mercury or mercury compounds * Persons who store 30 kg or more of mercury or mercury compounds must report	Measures for environmentally sound storage of mercury and mercury compounds (Articles 21 and 22) (Enforced on August 16, 2017)
Persons managing mercury-containing recyclable resources	Measures for environmentally sound management of mercury-containing recyclable resources (Articles 23 and 24) (Enforced on August 16, 2017)

In addition, the Mercury Pollution Prevention Act stipulates prohibition of primary mercury mining, restrictions on the manufacture or distribute in commerce of mercury-using products not covered by any known use, prohibition of the use of mercury or mercury compounds in manufacturing processes, and other provisions.

[Definition of terms used in this brochure]

- Mercury-using product Product in which mercury or a mercury compound is used
- Specified mercury-using product Mercury-using product whose manufacture is specified by Cabinet Order as being particularly in need of regulation
- Mercury-containing recyclable resource A material which falls into the requirements on the content of mercury (*), which undergoes recycling such as recovery of mercury (other than waste prescribed in the Waste Management Act, radioactive materials, and objects polluted by radioactive materials), and which is useful.

* Those listed in Table 3-27 of the Act on the Control of Export, Import and Others of Specified Hazardous Wastes and Other Wastes (Notice of the Environment Agency, Ministry of Health and Welfare and Ministry of International Trade and Industry No. 1 of 1998). For example, materials that contain 0.1 wt% or more of mercury, mercury(I) chloride, etc., materials that contain 1 wt% or more of mercury nucleate, mercury(I) acetate, etc.

1. Regulations on manufacture and distribution in commerce of specified mercury-using products

Manufacture of specified mercury-using products and their use as a component in the manufacture of another product are regulated depending on the type of the specified mercury-using product. A person seeking to manufacture specified mercury-using products for the purpose permitted by the Minamata Convention, must be licensed by the competent minister (competent authority of the business). The export and import of such products are regulated by the Foreign Exchange and Foreign Trade Act at similar level to the Mercury Pollution Prevention Act.

<Mercury content thresholds pertaining to manufacture and distribution in commerce of specified mercury-using products and the phase out dates >

Product		Mercury content threshold	Phase out date
Batteries	Silver oxide batteries (Button batteries only)	1% or more	January 1, 2018
	Zinc-air batteries (Button batteries only)	2% or more	January 1, 2018
	Alkaline batteries (Button batteries only)	No threshold (mercury must not be used)	December 31, 2020
	Batteries other than those above	No threshold (mercury must not be used)	January 1, 2018
Switches and relays		No threshold (mercury must not be used)	December 31, 2020
Fluorescent lamps*	Compact fluorescent lamps (CFLs) for general lighting purposes	30 W or less: > 5 mg	January 1, 2018
	Linear fluorescent lamps (LFLs) for general lighting purposes	(1) Less than 60 W and uses triband phosphor: > 5 mg (2) 40 W or less and uses halophosphate phosphor: > 10 mg	
	Cold cathode fluorescent lamp (CCFL) and external electrode fluorescent lamp (EEFL) for electronic displays	(1) 500 mm or less in length: > 3.5 mg (2) More than 500 mm and 1500 mm or less in length: > 5 mg (3) More than 1500 mm in length: > 13 mg	
High pressure mercury vapor lamp (HPMV) for general lighting purposes		No threshold (mercury must not be used)	December 31, 2020
Cosmetics		No threshold (mercury must not be used)	January 1, 2018
Chemicals used for controlling animals, plants or viruses**	Medicines other than merbromin	No threshold (mercury must not be used)	January 1, 2018
	Merbromin	No threshold (mercury must not be used)	December 31, 2020
Non-electric measuring devices (barometers, hygrometers, manometers, thermometers, sphygmomanometers)		No threshold (mercury must not be used)	December 31, 2020

* Mercury content threshold of fluorescent lamp is per piece.

** Excludes preservatives using thiomersal as an active ingredient (excluding those that contain mercury and mercury compounds other than thiomersal) that are added to pharmaceuticals.

In 2023, the following five products have been added to the list of specified mercury-using products.

Product	Mercury content threshold	Phase out date
Strain gauges to be used in plethysmographs	No threshold (mercury must not be used)	January 1, 2025
Mercury vacuum pumps	No threshold (mercury must not be used)	January 1, 2025
Tyre balancers and wheel weights	No threshold (mercury must not be used)	January 1, 2025
Photographic film and paper	No threshold (mercury must not be used)	January 1, 2025
Propellant for satellites and spacecraft	No threshold (mercury must not be used)	January 1, 2025

2. Provision of information on mercury-using products

For mercury-using products, their disposal requires appropriate sorting and discharge. The Mercury Pollution Prevention Act stipulates that a person engaged in the business of manufacturing or importing a mercury-using product must endeavor to indicate the use of mercury or mercury compounds in the product so that consumers can practice appropriate sorting and discharge of mercury-using products.




As a guidance in providing product information, “Guidelines for the Provision of Information Including Indications for Ensuring Appropriate Sorting and Discharge of Mercury-using Products” (September 2016, Ministry of the Environment and Ministry of Economy, Trade and Industry) has been released. Additionally, some industrial associations have formulated their voluntary guidelines on provision of information including indications.

3. Measures for environmentally sound storage of mercury and mercury compounds

Persons storing specified mercury or mercury compounds (*1) have to take appropriate measures in order to prevent environmental pollution from stored mercury or mercury compounds regardless of the stored amount (see the figures below). Any business operator storing 30 kg or more mercury or one of mercury compounds at its maximum amount per site in the fiscal year, the business operator must report the storage status (*2) to a competent minister (competent authority of the business) by the end of June of the following fiscal year.

- *1 Mercury, mercury(I) chloride, mercury(II) oxide, mercury(II) sulfate, mercury(II) nitrate and mercury(II) nitrate hydrate, mercury sulfide and their mixtures at a concentration of 95% or higher, cinnabar
- *2 Stored amount of mercury or mercury compounds at the beginning of the fiscal year (or the date of enforcement for the fiscal year when the relevant act came into force), manufactured amount, received amount, used amount, delivered amount, wasted amount, stored amount at the end of the fiscal year, purpose of storage, etc.

<Examples of measures for appropriate storage>




		
<p>(1) Storing in containers that prevent scattering or leaking of mercury or mercury compounds</p>	<p>(2) Labeling the name of mercury or mercury compounds on the containers or packages (the photo indicates mercury label)</p>	<p>(3) Indicating the name of mercury or mercury compounds at the storage site</p>
		<p>(4) Locking up the storage site (or installing strong fences surrounding the site if locking up the site is not possible)</p>

4. Measures for environmentally sound management of mercury-containing recyclable resources

Persons managing mercury-containing recyclable resources have to take appropriate measures for preventing scattering and leaking of mercury-containing recyclable resources (see the figures below). Any business operator managing mercury-containing recyclable resources, the business operator must report the management status (*3) for each type of the resources per site to a competent minister (competent authority of the business) by the end of June of the following fiscal year.

- *3 The amount of mercury-containing recyclable resources managed at the beginning of the fiscal year (or the date of enforcement for the fiscal year when the relevant act came into force), generated amount, received amount, delivered amount, disposed amount, wasted amount, amount managed at the end of the fiscal year, purpose of management, etc.

<Examples of measures for appropriate storage >

		
<p>(1) Storing in containers that prevent scattering or leaking of mercury-containing recyclable resources</p>	<p>(2) Labeling and indicating mercury-containing recyclable resources on the containers and storage sites</p>	<p>(3) Locking up the storage site (or installing strong fences surrounding the site if locking up the site is not possible)</p>

Measures by other laws and regulations

Air Pollution Control Act

Point sources of mercury emissions (coal-fired power plants, coal-fired industrial boilers, non-ferrous metal (copper, lead, zinc, industrial gold) manufacturing smelting and roasting facilities, waste incineration facilities, cement clinker production facilities) are required to submit advance notification of installation or modification of the structure, etc. They also have to comply with emission standards and to monitor, record and retain the results of mercury concentration in exhaust gas. Facilities requiring emission control (sintering furnaces for pig iron-making, electric furnaces for steel-making) are required, as voluntary basis, to prepare voluntary standards, to monitor, record and retain the results of mercury concentration, and to make public their implementation status and evaluations.

Waste Management and Public Cleansing Act (the Waste Management Act)

Waste mercury and mercury compounds will be designated as specially controlled waste, and their disposal standards will be strengthened (e.g., putting in sealed containers for transportation, sulfurizing and solidifying before landfilling). Regarding industrial waste of mercury-using products and soot and dust containing mercury or mercury compounds, disposal standards and related regulations will be strengthened (e.g, industrial waste of mercury-using products shall be carefully transported to avoid breakage, waste containing more than a certain level of mercury or mercury compounds shall be disposed of after recovering mercury).

Foreign Exchange and Foreign Trade Act

Exporters must obtain permission for exporting specified mercury, specified mercury compounds or specified mercury-using products (including assembled products). Particularly, a person who exports specified mercury or specified mercury compounds is required to report the actual usage after the export. Also, importers must obtain permission for importing specified mercury or specified mercury-using products (including assembled products).

In addition, various other laws and regulations have implemented the Minamata Convention.

<References>

- Ministry of the Environment
 - ◆ About the Minamata Convention: <<http://www.env.go.jp/chemi/tmms/index.html>> [in Japanese]
 - Background and outline of the Minamata Convention, and Japan's domestic policies for implementing the Minamata Convention
 - Mercury Pollution Prevention Act and related laws and regulations
 - Guidelines on the Storage of Mercury and Mercury Compounds and Management of Mercury-containing Recyclable Resources
 - Guidelines for the Provision of Information Including Indications for Ensuring Appropriate Sorting and Discharge of Mercury-using Products
 - International cooperation in mercury management
 - Information on events, information sessions and publications
 - ◆ About mercury wastes: <<http://www.env.go.jp/recycle/waste/mercury-disposal/>> [in Japanese]
 - ◆ About atmospheric mercury emission management: <http://www.env.go.jp/air/suigin/post_11.html> [in Japanese]
- Ministry of Economy, Trade and Industry
 - ◆ About the Minamata Convention : <http://www.meti.go.jp/policy/chemical_management/int/minamata.html> [in Japanese]
 - ◆ About the Mercury Pollution Prevention Act:
<http://www.meti.go.jp/policy/chemical_management/int/mercury.html> [in Japanese]
 - Related laws and regulations
 - Guidance on the management related to the regulations on specified mercury-using products with the Minister of Economy, Trade and Industry being the competent minister based on the Act on Preventing Environmental Pollution of Mercury
 - Guidelines for the Provision of Information Including Indications for Ensuring Appropriate Sorting and Discharge of Mercury-using Products
 - Other related materials
 - ◆ About exporting and importing specified mercury, mercury compounds and mercury-using products:
<http://www.meti.go.jp/policy/external_economy/trade_control/02_exandim/08_minamata/> [in Japanese]

○ Contact us

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* For submitting reports, please inquire with the competent authority of your business.