

Information on the supply, use and trade of mercury compounds

Government of Japan

In response to the Secretariat's call for information related to potential trade control measures for mercury compounds, the Government of Japan submits information on the supply, use and trade of mercury compounds.

1. Overview of the supply, use and trade of mercury compounds in Japan

(1) Supply and use

To obtain information on the domestic sales and uses of mercury compounds in Japan, an interview was conducted in 2024 with the only domestic manufacturer of mercury compounds. The results are summarized in the table below.

Table 1 Record of sales of mercury compounds by the only domestic manufacturer in Japan (FY2019–FY2023)

Mercury compounds listed under Article 3 of the Minamata Convention	Mercury(I) chloride; mercuric oxide (red, yellow); mercury(II) nitrate*; mercury(II) sulfate*; mercuric(II) sulfide (excluding vermilion); vermilion*
Other mercury compounds	Mercury(II) acetate*; mercury(I) nitrate; mercury(II) bromide*; mercury(II) iodide*; mercury(II) oxycyanide; mercury(ii) thiocyanate*; sodium amalgam; copper and silver tetraiodomercurate*; mercury (I) sulfate*; mercury (II) chloride*

* Mercury compounds with an average annual sales volume exceeding 1 kg during FY2019–FY2023.

Table 2 Sales volume of mercury compounds by the only domestic manufacturer in Japan (approximate)

	FY2019–FY2023 (tonnes)	Annual average (tonnes)
Vermilion	3	0.6
Mercury compounds	0.3	0.06
Total	3.3	0.66

* No direct exports of mercury compounds have been made by this company.

Table 3 Uses of mercury compounds (excluding laboratory reagents)

Mercury compound	Use*
Copper and silver tetraiodomercurate	Thermochromic paint
Mercury(I) chloride	Reference electrode (calomel electrode)
Vermilion	Pigment

* Uses that are currently in practice or considered likely to still occur.

(2) Trade

Based on trade statistics published by the Ministry of Finance¹, the export and import volumes of inorganic or organic compounds of mercury², whether or not chemically defined, are shown in the table below.

¹ <https://www.customs.go.jp/toukei/srch/indexe.htm?M=29&P=0>

² Based on Export statistical schedule (April 2023) (https://www.customs.go.jp/yusyutu/2023_04_01/data/j_28.htm) and the Import Statistical Schedule (Customs Tariff Schedule) (1 April 2023) (https://www.customs.go.jp/english/tariff/2023_04_01/data/e_28.htm) published by Japan Customs.

It should be noted that the table below presents aggregated results for commodity code 2852.10. Therefore, the export and import volumes of mercury compounds not classified under this code (e.g., natural cinnabar, or mercury compounds used in other product categories, if any) are not included.

Table 4 Export volumes of mercury compounds from Japan (FY2019–FY2023)

No.	Item	2019	2020	2021	2022	2023
2852.10-000	Chemically defined	—	—	140	340	100
2852.90-000	Other	0	—	13	—	—

(Unit: kg)

Table 5 Import volumes of mercury compounds into Japan (FY2019–FY2023)

No.	Item	2019	2020	2021	2022	2023
2852.10	Chemically defined compounds					
2852.10-100	1 Certified reference materials	—	—	—	—	—
	2 Inorganic compounds and their products					
2852.10-210	(1) Sulfates	—	—	—	—	—
2852.10-220	(2) Chemical preparations for photographic uses* ¹ and unmixed products for photographic uses* ²	—	—	—	—	—
	(3) Other					
2852.10-291	— Mercury carbide	—	—	—	—	—
2852.10-299	— Other	1	2	7	0	0
	3 Organic compounds and their products					
	(1) Vegetable tanning extracts and tannins and their salts, ethers, esters and other derivatives					
2852.10-911	A Tannins and their derivatives	—	—	—	—	—
2852.10-919	B Other	—	—	—	—	—
2852.10-920	(2) Protein substances and their derivatives* ³	—	—	—	—	20
2852.10-990	(3) Other	8	—	1	1	2
2852.90	Other					
	1 Inorganic compounds and their products					
2852.90-110	(1) Polysulfide	—	—	—	—	—
2852.90-190	(2) Other	—	0	—	—	—
	2 Organic compounds and their products					
2852.90-210	(1) Sultones and sultams	—	—	—	—	—
2852.90-290	(2) Other	—	0	—	—	—

(Unit: kg)

*1 Excluding varnishes, glues, adhesives and similar preparations.

*2 Limited to products put up in measured quantities or in forms ready for use for retail sale.

*3 Excluding albuminates and other albumin derivatives.

Table 6 Total import and export volumes of mercury compounds (YF2019-FY2023)

	Total for FY2019-FY2023 (kg)	Annual average (kg)
Import volume	42	8.4
Export volume	593	118.6

2. Notification information on “mercury compounds” under Article 3 of the Minamata Convention

In Japan, pursuant to relevant national legislation, the following substances defined as “mercury compounds” for the purposes of Article 3 of the Minamata Convention - mercury(I) chloride, mercury (II) oxide, mercury (II) sulfate, mercury (II) nitrate, cinnabar, and mercury sulfide - are subject to measures such as monitoring of storage quantities and export controls. An overview of the relevant laws/regulations used to monitor these mercury compounds, as well as a summary of the reporting systems, is provided in the table below.

Table 7 Overview of legal framework for monitoring mercury compounds

Law/regulation	Overview	Examples of notification/reporting	Remarks
Mercury Pollution Prevention Act (Act on Preventing Mercury Pollution of the Environment)	Any person who has stored 30 kg or more of mercury or mercury compounds (as specified by Cabinet Order) during the previous fiscal year (for cinnabar: containing 30 kg or more of mercury sulfide) must submit a report. (Article 22 of the Act; Article 2 of the Ministerial Ordinance on Storage of Mercury)	Quantity stored by substance type and purpose; production volume; quantity received and supplier; quantity used and purpose; quantity transferred, purpose and recipient; quantity disposed of; location, etc.	Reported annually based on actual results
Foreign Exchange and Foreign Trade Act	Any person exporting goods specified by Cabinet Order (Appended Table 2) to destinations specified by the same Order must obtain approval from the Minister of Economy, Trade and Industry. (Article 48 of the Act; Article 2(1) of the Export Trade Control Order, etc.)	Product name, quantity, value, destination, statement of reason for application (including final end-user and intended use), etc.	Reporting continues until the entire quantity of the goods has been used
Chemical Substances and Control Law (CSCL)	Any person who manufactured or imported 1 tonne or more of a general chemical substance (or 1 kg or more of a monitored chemical substance) in the previous fiscal year must submit a notification specifying the quantity for each substance. (Articles 8 and 13 of the Act; Article 5 of the Enforcement Order; Article 10 of the METI Enforcement Regulations)	Manufacturing quantity, import quantity, shipment quantity (total and by use), quantities by prefecture or by country/region (for monitored chemical substances), etc.	Reported annually based on actual results Excluding uses for research and testing

* The mercury compounds listed above fall under Item 35-3(1) of Appended Table 2 of the Export Trade Control Order, which covers “chemical substances listed in Annex III of the Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.” Therefore, they are subject to export control measures.

Table 8 Status of reporting for mercury compounds

Law/regulation	Item	Mercury (I) chloride	Mercury (II) oxide	Mercury (II) sulfate	Mercury (II) nitrate	Mercury (II) sulfide
Mercury Pollution Prevention Act	Requirement to report storage of mercury *1	X*2 [≥30 kg]	X*2 [≥30 kg]	X*2 [≥30 kg]	X*2,3 [≥30 kg]	X*2,4 [≥30 kg]
	State of submission of storage reports (FY2022)	None	None	None	None	None*5
Foreign Exchange and Foreign Trade Act	Requirement for export approval application *1	X*2	X*2	X*2	X*2,3	X*2,4
	Status of submission of export control application*6 (as of FY 2024)	None	None	None	None	None
Chemical Substances and Control Law (CSCL)	Requirement to notify manufacturing quantities*1	X*7 [≥1 t]	X [≥1 kg]	X [≥1 t]		X*8 [≥1 t]
	Classification of chemical substance	General chemical substance (existing chemical)	Monitoring chemical substance (existing chemical)	General chemical substance (existing chemical)		General chemical substance (existing chemical)
	Publication of total manufacturing quantities*9 (FY2022)	None	None	None		None

*1 “X” indicates that reporting is required under the relevant regulation. Square brackets indicate the applicable threshold for reporting (where applicable).

*2 When the substance is present in a mixture (except when mercury sulfide is contained in cinnabar), the requirement applies only when the content is 95% or more of the total weight.

*3 Applies to mercury (II) nitrate and mercuric nitrate hydrates.

*4 Includes mercury sulfide contained in cinnabar.

*5 Six reports were submitted. The total storage quantity at the end of the fiscal year was 1,566 kg.

*6 Based on inquiries with the responsible division of the Ministry of Economy, Trade and Industry.

*7 Applies to mercuric chloride.

*8 Applies to Mercury (II) sulfate

*9 Data is disclosed when the combined manufacturing and import quantity for each substance exceeds the following thresholds: 100 tonnes or more for general chemical substances, 1 tonne or more for monitoring chemical substances.

3. Views and comments on mercury compounds that could potentially be listed in the annex pursuant to Article 3, paragraph 13

Japan expresses its appreciation to the Minamata Convention Secretariat and other relevant stakeholders for preparing the report titled “*Study of the global supply, production, trade and use of mercury compounds (UNEP/MC/COP.6/INF/5)*.” Japan also supports the approach of the report, which seeks to scientifically and objectively understand the global situation regarding the supply, trade and uses of mercury compounds and to provide a basis for policy considerations for the effective implementation of the Convention.

In Japan, the substances defined as “mercury compounds” for the purposes of Article 3 of the Convention—namely mercury(I) chloride, mercury (II) oxide, mercury (II) sulfate, mercury (II) nitrate, cinnabar, and mercury sulfide—are subject to voluntary monitoring of storage quantities and export controls.

In preparing this submission, Japan reviewed the domestic situation regarding the supply, use and trade of mercury compounds. As a result, no cases were identified that could undermine the objectives of the Convention. Therefore, at present Japan does not consider it necessary to include mercury compounds within the scope of trade control measures under the Convention. However, Japan remains open to further consideration should information provided by other Parties indicate the need for additional regulatory measures.

In this regard, Japan considers that the following points should be considered:

1. Mercury compounds cover a wide range of substances. Small quantities are used for analytical and research purposes, and these uses are expected to remain essential. Accordingly, as with the current regulation of mercury, such uses should be excluded from the scope of regulation under Article 3, paragraph 2 of the Convention.
2. Under Article 3 of the Convention, the term “mercury compounds” is currently defined and limited to mercury (I) chloride (also known as calomel), mercury (II) oxide, mercury (II) sulfate, mercury (II) nitrate, cinnabar and mercury sulfide. If additional compounds were to be included, an amendment to the Convention text would be required. Furthermore, considerable time would be required to assess the uses and distribution of such additional compounds.