DRAFT
MINAMATA CONVENTION ON MERCURY

INTERSESSIONAL WORK ON MANAGEMENT OF MERCURY WASTE

INPUTS FROM THE EU AND ITS MEMBER STATES

In accordance with Article 11, paragraph 3 of the Minamata Convention on Mercury ('the Minamata Convention'), Parties to the Convention are requested to take appropriate measures to manage mercury waste in an environmentally sound manner, taking into account the technical guidelines developed under the Basel Convention and in accordance with requirements that the Conference of the Parties to the Convention should adopt in an additional annex to the Convention, and which should take into account Parties' waste management regulations and programmes.

By means of Decision MC-5/10 ('Establishment of Mercury waste thresholds'), the 5th Conference of the Parties to the Minamata Convention on Mercury invited parties to submit to the secretariat by 31 October 2024 information regarding their waste management regulations and programmes, as mentioned in subparagraph 3 (a) of Article 11 above, with a focus on matters not addressed by the technical guidelines developed under the Basel convention. The Secretariat is also requested to collect and organize this information and to distribute it by 1 January 2025 to the Parties, for them to review this information in their preparations for the sixth meeting of the Conference of the Parties to be held in November 2025.

In that context, the European Union (EU) and its Member States would like to present information on relevant and applicable EU law pertaining to mercury waste as well as information on national legislations and practices concerning management of mercury waste.

Most relevant EU legislation addressing mercury waste

Mercury waste is regulated at EU level by several legal instruments:

- Regulation (EU) 2017/852 on Mercury[1] (Mercury Regulation) is the key instrument to control mercury pollution and implements international obligations in the EU, in particular the Minamata Convention on Mercury. The Mercury Regulation protects human health and the environment from anthropogenic emissions and releases of mercury, in line with the objectives of the European Green Deal, the EU Chemicals Strategy on Sustainability and the Zero Pollution Action Plan. In doing so, it addresses the entire lifecycle of mercury from primary mercury mining to the final disposal of mercury waste, which is defined as metallic mercury with reference to Article 3 of the Waste Framework Directive.
- Directive 2008/98/EC on waste (Waste Framework Directive)[2] is the EU's legal framework for treating and managing waste. In general, waste should be recovered (Articles 4 and 10) or disposed of (Article 12) in such a way that it does not harm human

[1] Regulation (EU) 2017/852 on mercury as regards dental amalgam and other mercury-added products subject to export, import and manufacturing restrictions revised by Regulation (EU) 2024/1849 of the European Parliament and of the Council of 13 June 2024, Regulation - 2024/1849 - EN - EUR-Lex (europa.eu)10.7.2024, ELI: http://data.europa.eu/eli/reg/2024/1849/oj

[2] Directive 2008/98/EC of the European Parliament and of the Council of 19 November 2008 on waste and repealing certain Directives, EUR-Lex - 02008L0098-20180705 - EN - EUR-Lex (europa.eu)

health or the environment (Article13). Hazardous properties are laid down in its Annex III. More stringent requirements apply to hazardous waste; in particular, hazardous waste must be controlled (Article 17), is not to be mixed with other waste, substances or materials (Article 18) and must be labelled (Article 19). In addition, hazardous waste from private households must be collected separately in accordance with Article 20.

- Decision 2000/532/EC establishes a List of Waste, which contains further provisions for the assessment of hazardous properties and the classification of waste. It contains specific codes for mercury containing waste. Annex I of this paper describes this methodology in detail.
- Regulation (EG) 1013/2006 on the Shipment of Waste[3] (Waste Shipment Regulation) prohibits in principle under Article 34 all exports of waste from the Community destined for disposal and under Article 36 exports from the Community of wastes listed as hazardous in its Annex V destined for recovery.
- Directive 2006/21/EC on Extractive Waste[4] aims to prevent or reduce any adverse effects on the environment due to the management of mining waste. For every extractive waste facility, the operator needs to classify the waste, amongst other in accordance with the List of Waste. In accordance with Annex III of the Directive and Commission Decision 2009/337/EC, when an extractive waste facility contains waste classified as hazardous under the Waste Framework Directive above a certain threshold, more stringent rules apply to it.
- Directive 1999/31/EC on the landfill of waste[5] (Landfill Directive) sets out strict operational requirements for landfill sites such as permitting, waste acceptance, technical requirements in the operational and after-care phases and reporting, with the objective to protect both human health and the environment and to support the EU's transition to the circular economy. The Council Decision 2003/33/EC establishes criteria and procedures for the acceptance of waste at landfills[6] in accordance with the principles set out in the Landfill Directive and in particular Annex II thereto. Landfills are divided into landfills for hazardous waste, landfills for non-hazardous waste, landfills for inert waste.
- Directive 86/278/EEC on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture (Sewage Sludge Directive)[7] regulates the use of sewage sludge in agriculture with the aim to prevent harmful effects on soil, vegetation, animals and man. The Directive sets limits for the concentration of seven heavy metals, including mercury, in sewage sludge intended for agricultural use and in sludge-treated soils and bans the use of sewage sludge that results in concentrations of these heavy metals in soil exceeding these limit values.

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[3] Regulation (EC) No 1013/2006 of the European Parliament and of the Council of 14 June 2006 on shipments of waste, https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=CELEX%3A32006R1013

[4] Directive 2006/21/EC of the European Parliament and of the Council of 15 March 2006 on the management of waste from extractive industries and amending Directive 2004/35/EC -

5 Council Directive 1999/31/EC of 26 April 1999 on the landfill of waste, Directive - 2006/21 - EN - EUR-Lex (europa.eu)

[6] Council Decision 2003/33/EC of 19 December 2002 establishing criteria and procedures for the acceptance of waste at landfills pursuant to Article 16 of and Annex II to Directive 1999/31/EC, http://data.europa.eu/eli/dec/2003/33(1)/oj

[7] Council Directive 86/278/EEC of 12 June 1986 on the protection of the environment, and in particular of the soil, when sewage sludge is used in agriculture, Directive - 86/278 - EN - EUR-Lex (europa.eu)

Management approaches for mercury waste under existing EU legislation

Managing waste in an environmentally sound manner (ESM) and making use of the secondary materials they contain are key elements of the EU waste law, which relies upon the key obligation set out in the Articles 13, 17 and 18 of the Waste Framework Directive, according to which Member States shall take the necessary measures to ensure that waste management is carried out without endangering human health and without harming the environment. In particular, in relation to control of hazardous waste, Member States are required to take the necessary action to ensure that the production, collection, transportation, as well as storage and treatment of hazardous waste are carried out under conditions providing protection for the environment and human health, including action to ensure traceability from production to final destination and control of hazardous waste. These provisions implement the ESM obligation set out in Article 11, paragraph 3 of the Minamata Convention. However, the EU acquis on waste is not based on a specific mercury threshold, as waste is regulated at EU level and made subject to ESM irrespective of its content in mercury or mercury compounds.

This obligation is transposed into the Mercury Regulation, which establishes measures and conditions concerning the management of mercury waste, in order to ensure a high level of protection of human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds (article 1). In addition, the regulation requires specific management measures for:

- amalgam waste, including amalgam residues, particles and fillings, and teeth, or parts thereof, contaminated by dental amalgam. Those are to be handled and collected by an authorised waste management establishment or undertaking (article 10 of the Mercury Regulation). Direct or indirect release of such amalgam waste into the environment by the dental practitioner is prohibited.
- mercury and mercury compounds from the following large sources: chlor-alkali industry, cleaning of natural gas, non-ferrous mining and smelting operations, extraction from cinnabar ore in the Union. Those are to be handled as waste and as such disposed of without endangering human health or harming the environment. Specific reporting requirements are also established.

By derogation to the Landfill Directive, the Mercury Regulation allows the temporary storage of metallic mercury waste in liquid form, until 31 December 2025 and under specific conditions (provided that the specific requirements for the temporary storage of mercury waste as laid down in Annexes I, II and III to that Directive are complied with and that such storage occurs in above-ground facilities dedicated to and equipped for the temporary storage of mercury waste).

Prior to being permanently disposed of, mercury waste should undergo conversion and, where intended to be disposed of in above-ground facilities, conversion and solidification. It should be highlighted again that mercury waste under the Mercury Regulation is defined as metallic mercury that qualifies as waste.

Mercury waste that underwent conversion and, if applicable, solidification is to be permanently disposed of in the following permanent storage facilities licensed for disposal of hazardous waste:

- salt mines that are adapted for the permanent storage of mercury waste that underwent conversion, or deep underground hard rock formations providing a level of safety and confinement equivalent to or higher than that of such salt mines; or

- above-ground facilities dedicated to and equipped for the permanent storage of mercury waste that underwent conversion and solidification and that provide a level of safety and confinement equivalent to or higher than that of the facilities referred to in point (a).

Operators of permanent storage facilities should ensure that mercury waste that underwent conversion and, if applicable, solidification is stored separately from other waste and in disposal batches in a storage chamber that is sealed. Those operators should further ensure that the requirements of the Landfill Directive are complied with in relation to the permanent storage facilities.

Additional management approaches for mercury waste under national legislations of EU Member States

Following national legislation has been implemented by some Member States, and goes beyond the provisions of the Mercury Regulation described above:

Italy

Italy ratified the Minamata Convention on 8th October 2020 (law No. 134).

In relation to the regulatory provisions concerning mercury-containing waste, Italy emphasises the national '*Guidelines on the classification of waste'*, referred to in the resolution of the Council of the National System for the Protection of the Environment of 18 May 2021, no. 105 approved by Directorial Decree of the Ministry of the Environment and Energy Security no. 47 of 9 August 2021. The guidelines provide homogeneous technical criteria for the completion of the waste classification procedure, in line with and complementing what is defined by the European and national (Legislative Decree n.152 of 2006) regulations. In particular, in the third chapter of the SNPA Guidelines 'on the classification of waste, the European List of Waste reported in Decision 2014/955/EU (which replaces the old Decision 2000/532/EC) is examined.

The document highlights the changes that the list underwent in 2014, in particular the introduction of three new codes referring to Mercury:

- 01 03 10* ('red sludge from alumina production containing dangerous substances, other than those mentioned in 01 03 07');
- 16 03 07* ('metallic mercury');
- 19 03 08* ('partly stabilised mercury').

Furthermore, the National Plan for the Elimination of Dental Amalgam, approved by Ministerial Decree of 11 November 2020, provides for the acquisition of data on the volumes of amalgam waste (EER code 180110) withdrawn and stored. The Italian Institute for Environmental Protection and Research (ISPRA) annually transmits this data to the Ministry of the Environment and Energy Security (MASE), which informs the Ministry of Health and the Ministry of Enterprises and Made in Italy (MIMIT).

Netherlands

In the Netherlands' national waste management plan pursuant to the Waste Framework Directive, the provision in the Mercury regulation that assigns mercury obtained in the cleaning

of natural gas as "waste" that has to be permanently disposed of, is extended to all mercury obtained from waste materials (e.g. steel scrap, sludges, filters) originating from natural oil and gas mining and purification. The extraction of mercury from this waste is mandatory.

Spain

Spain would like to highlight their approach for the treatment of lamps containing mercury included in Annex XIII, part G.5 on "Treatment for lamps containing mercury" of the "Royal Decree 110/2015[8], of February 20, on wastes of electric and electronic equipment". The treatment of lamps containing mercury consists of 2 stages: equipment reception and removal of components and separation from the rest of fractions. Further information on the national legislation can be found in the relevant webpage[9].

[8] Spanish legislation on waste of electric and electronic equipment (WEEE): Royal Decree 110/2015 of 20 February 2015 on wastes of electric and electronic equipments, https://www.boe.es/buscar/doc.php?id=BOE-A-2015-1762

[9] https://www.miteco.gob.es/content/dam/miteco/es/calidad-y-evaluacion-ambiental/temas/prevencion-y-gestion-residuos/spanishlegislationonwasteofelectricandelectronicequipmentsweeeroyaldecree1102015of20february_tcm30-170359.pdf

ANNEX 1 : Classification of waste under EU law

1) Legal basis

Classification of waste is based on following EU legal instruments:

- Commission Decision 2000/532/EC on the list of waste[10]
- Directive 2008/98/EC on waste (Waste Framework Directive)

2) Methodology for classification of waste

Classifications according to the European List of Waste recognises three types of entries:

- *Absolutely Hazardous* (AH) entries: classified as 'hazardous' with no further assessment
- *Absolutely Non-Hazardous* (ANH) entries: classified as 'non-hazardous' with no further assessment
- *Mirror Hazardous* (MH) or *Mirror non-Hazardous* (MNH) entries.

A waste is classified as 'hazardous waste' if it contains hazardous substance(s)in quantities superior to concentration limits set out in Annex III to Waste Framework Directive and therefore displays one or more hazardous properties (HP 1 to HP 15), **or if it** contains certain POPs mentioned in decision 2014/955/EU in quantities superior or equal to the limit values set out in Annex IV of the POP Regulation. In that context, one of the key aspects is to define whether a MH or MNH entry is a hazardous waste or not. For doing so, there is a need to define whether a given waste displays one of the hazardous properties listed in Annex III to the WFD (see below) and, if so, whether the concentration of the hazardous substance concerned is superior to the relevant concentration limits set also in Annex III to the WFD.

Hazardous properties HP 1 to HP 15 (Annex III to WFD)

- HP1 Explosive
- HP2 Oxidising
- HP3 Flammable
- HP4 Irritant — skin irritation and eye damage
- HP5 Specific Target Organ Toxicity (STOT)/Aspiration Toxicity
- HP6 Acute Toxicity
- HP7 Carcinogenic
- HP8 Corrosive
- HP9 Infectious
- HP10 Toxic for reproduction
- HP11 Mutagenic
- HP12 Release of an acute toxic gas
- HP13 Sensitising
- HP14 Ecotoxic
- HP15 Waste capable of exhibiting a hazardous property listed above not directly displayed by the original waste

Hazardous properties of mercury and mercury compounds are identified in the CLP Regulation

[10] In case further details are needed, see Commission Notice on technical guidance on the classification of waste (09/04/2018)