



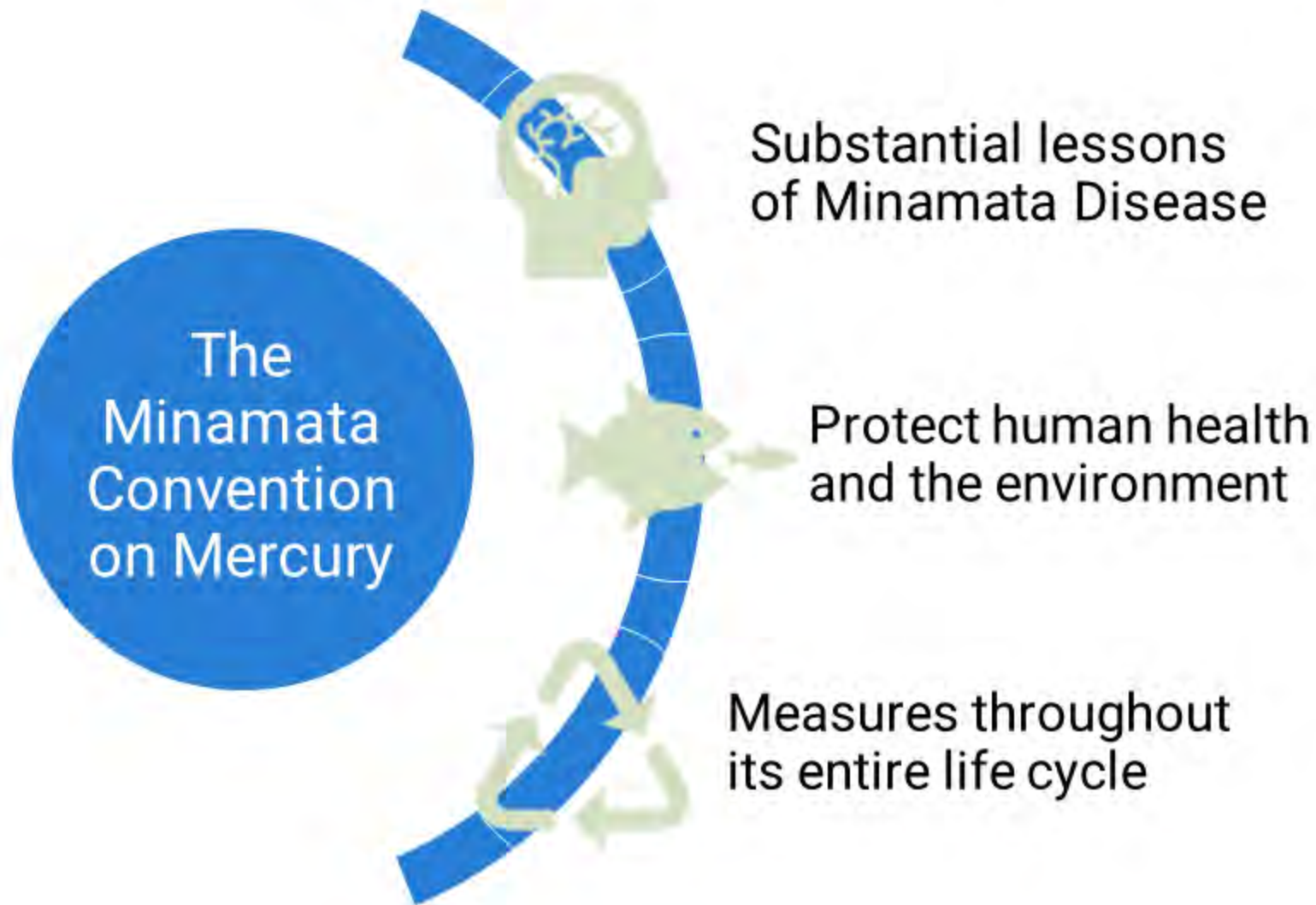
MERCURY MONITORING AND THE MINAMATA CONVENTION





OUTLINES OF THE MINAMATA CONVENTION

The Minamata Convention on Mercury



Mercury
Monitoring and
the Minamata
Convention

Outlines of the
Minamata
Convention

Structure of Minamata Convention

General Provisions	Preamble: Background and principles Article 1: Objective Article 2: Definitions	
Measures to reduce mercury risks	Articles 3-6: Supply, trade and use Article 7: ASGM Articles 8-9: Emissions, releases Articles 10-11: Storage, waste Article 12: Contaminated sites	Production, use ↓ life cycle management Pollution, waste
Provisions facilitating the implementation of measures	Articles 13-14: Finance, technical assistance Article 15: Implementation and compliance Article 16: Health aspects Articles 17-19: Information, awareness, research, monitoring Articles 20-21: Planning, reporting	
Overall management of the Convention	Article 22: Effectiveness evaluation Articles 23-28: The COP, secretariat, amendments, vote Articles 29-35: Ratification, entry into force	
Annex	Annexes A-D: Products, processes, ASGM and emission sources Annex E: Arbitration and conciliation	

Mercury
Monitoring and
the Minamata
Convention

Outlines of the
Minamata
Convention

Scope of Each Article

Mercury (Hg)

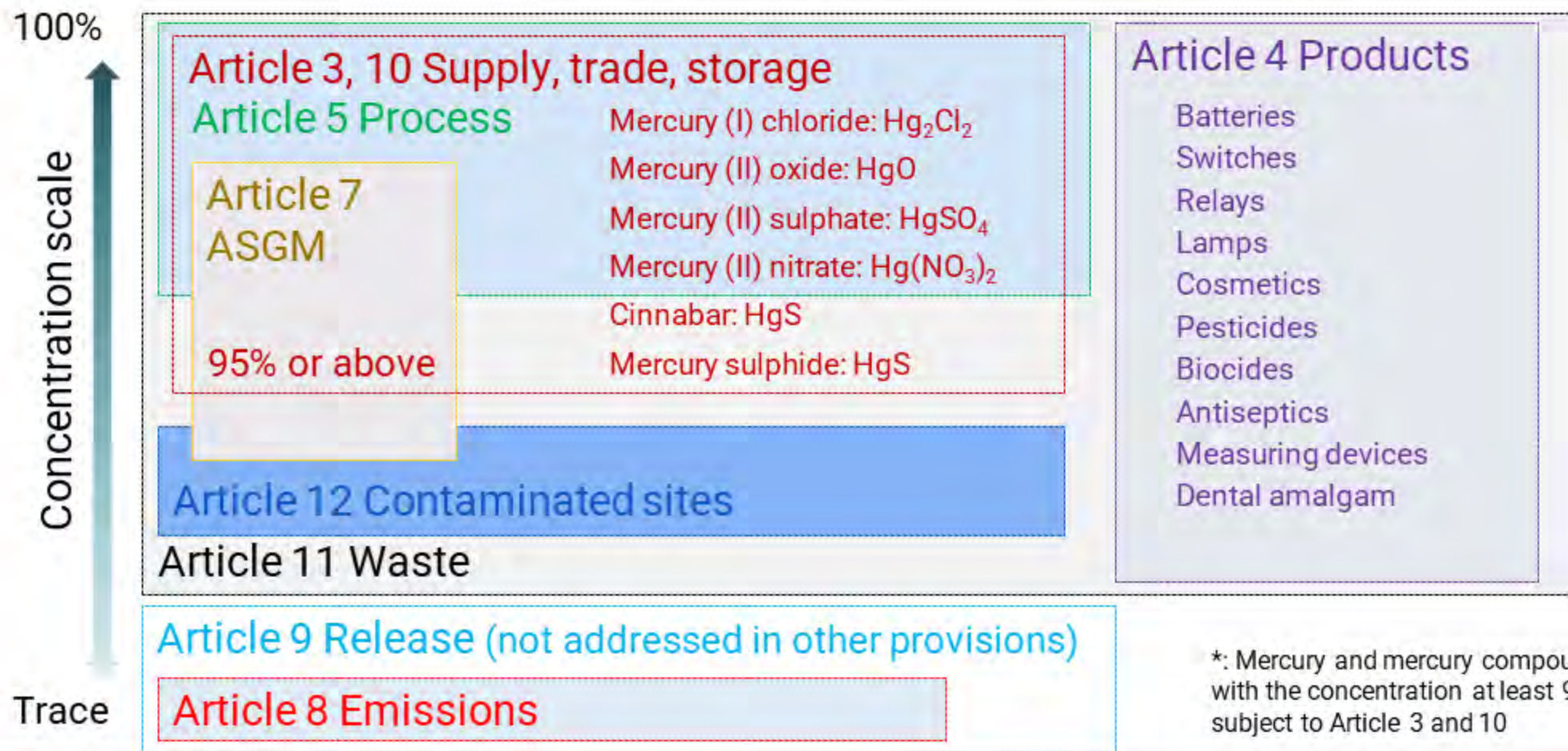
Hg(0) CAS 7439-97-6 and its alloy

Mercury compounds

Substance Consisting of Hg atoms and other chemical elements

Mercury-added products

Products containing Hg or a compound intentionally added





MEASURES TO REDUCE MERCURY RISKS

Article 4 Mercury-added products

Necessary Actions

Each Party shall:

- Not allow the manufacture, import or export of mercury-added products listed in Part I of Annex A after 2020 or 2025
- Phase down the use of mercury-added products listed in Part II of Annex A
- Prevent the incorporation of mercury-added products into assembled products
- Discourage the manufacture and the distribution of new mercury-added products

The Secretariat shall:

- Collect and maintain information on mercury-added products and make it publicly available

The COP shall:

- Review Annex A and may consider amendments



Mercury
Monitoring and
the Minamata
Convention

Measures to
Reduce Mercury
Risks

Article 5 Manufacturing Processes

Necessary Actions

Each Party shall:

- Not allow the use of mercury or mercury compounds in the manufacturing processes listed in Part I of Annex B.
- Take measures to restrict the use of mercury etc. in the manufacturing processes listed in Part II of Annex B.
- Take measures to address emissions and releases of mercury etc. from the facilities employing processes listed in Annex B.
- Not allow the use of mercury etc. in new facilities.
- Discourage their use of mercury etc. in new processes.

The Secretariat shall:

- Collect and maintain information on processes using mercury or mercury compounds and make it publicly available.

The COP shall:

- Review Annex B and may consider amendments.

Mercury
Monitoring and
the Minamata
Convention

Measures to
Reduce Mercury
Risks

Article 7 ASGM

Necessary Actions

Each Party with ASGM in its territory shall:

- Reduce, and where feasible eliminate, the use, emissions and releases of mercury and its compounds.

Each Party with more than insignificant ASGM in its territory shall:

- Notify the Secretariat.
- Develop and implement a national action plan (NAP).
- Submit its NAP to the Secretariat within 3 years after the development of the plan.
- Provide a review every 3 years of the progress made in meeting its obligations.

Parties may:

- Cooperate with each other, with international organizations and other entities.



Mercury
Monitoring and
the Minamata
Convention

Measures to
Reduce Mercury
Risks

Article 8 Emissions

Necessary Actions

A Party with relevant sources shall:

- Take measures to control emissions from sources listed in Annex D.

Each Party shall:

- Require the use of BAT/BEP for new sources within 5 years after becoming a Party.
- Implement measures for existing sources within 10 years after becoming a Party.
- Establish and maintain an inventory of emissions.
- Include information on its implementation of this Article in its reports.
submitted pursuant to Article 21.

The COP:

- Adopted guidance on: BAT/BEP, measures for existing sources in particular in determining goals and in setting emission limit values, criteria for source categories, methodology for preparing inventories of emissions.
- Shall keep under review and update as appropriate the guidance.



Mercury
Monitoring and
the Minamata
Convention

Measures to
Reduce Mercury
Risks

Article 9 Releases

Necessary Actions

Each Party shall:

- Identify the relevant point source categories no later than three years and on a regular basis thereafter.
- Take measures to control releases.
- Establish and maintain an inventory of releases.
- Include information on its implementation of this Article in its reports submitted pursuant to Article 21.

The COP shall:

- Adopt guidance on: BAT/BEP, methodology for preparing inventories of releases

Article 11 Mercury Wastes

Necessary Actions

Each Party shall:

- Manage in an environmentally sound manner.
- Only recover, recycling, reclamation or direct re-use for a use allowed to a Party under this Convention or for environmentally sound disposal.
- Not transport across international boundaries except for the purpose of environmentally sound disposal and with the Basel Convention.

The COP shall:

- Define relevant thresholds for mercury wastes.
- Adopt requirements on the environmentally sound management of mercury wastes.

Mercury
Monitoring and
the Minamata
Convention

Measures to
Reduce Mercury
Risks

Article 12 Contaminated Sites

Necessary Actions

Each Party shall:

- Endeavour to develop appropriate strategies for identifying and assessing sites contaminated by mercury or mercury compounds.

- Actions to reduce the risks shall be performed in an environmentally sound manner
- An assessment of the risks to human health and the environment from the mercury or mercury compounds

The COP:

- Adopted guidance on managing contaminated sites in its third meeting in 2019.



PROVISIONS FACILITATING THE IMPLEMENTATION OF MEASURES

Article 16 Health Aspects

Necessary Actions

Parties are encouraged to:

- Promote the development and implementation of strategies and programmes to identify and protect populations at risk
- Promote the development and implementation of science-based educational and preventive programmes on occupational exposure to mercury and mercury compounds
- Promote appropriate health-care services for prevention, treatment and care for populations affected by the exposure to mercury or mercury compounds
- Establish and strengthen the institutional and health professional capacities for the prevention, diagnosis, treatment and monitoring of health risks related to the exposure to mercury and mercury compounds

Article 18 Public Information, Awareness

Necessary Actions

Each Party shall:

- Promote and facilitate:
 - Provision to the public of available information.
 - Education, training and public awareness related to the effects of exposure to mercury and mercury compounds.
- Use existing (or new) mechanisms such as pollutant release and transfer registers (PRTR) for the collection and dissemination of information on estimate of annual quantities emitted, released or disposed of through human activities.

Article 19 Research, development, monitoring

Necessary Actions

Parties shall:

- Endeavor to cooperate to develop and improve:
 - Inventories of use, consumption, emissions and releases.
 - Modelling and monitoring in vulnerable populations, environmental media.
 - Assessments of the impact on human health and the environment, in addition to social, economic, and cultural impacts.
 - Information on the environmental cycle, transport, transformation, fate
 - Information on commerce, trade in mercury, mercury-added products.
 - Information and research on availability of mercury-free products, processes, BAT/BEP, monitor emissions and releases.

Parties should:

- Build on existing monitoring networks and research programmes.



Mercury
Monitoring and
the Minamata
Convention

Provisions
Facilitating the
Implementation
of Measures



OVERALL MANAGEMENT OF THE CONVENTION

Article 22 Effectiveness Evaluation (1/2)

Necessary Actions

The COP shall:

- Evaluate the effectiveness of the Convention, beginning no later than six years after entry into force and periodically thereafter
- Initiate the establishment of arrangements for providing itself with comparable monitoring data
- Presence and movement of mercury in the environment
- Trends in levels of mercury observed in biotic media and vulnerable populations

Article 22 Effectiveness Evaluation (2/2)

Necessary Actions

The evaluation shall be conducted on the basis of available scientific, environmental, technical, financial and economic information:

- Reports and other monitoring information (Article 22)
- National reports submitted (Article 21)
- Information and recommendations on compliance provided (Article 15)
- Reports and other relevant information on the operation of the financial assistance, technology transfer and capacity-building arrangement

Mercury
Monitoring and
the Minamata
Convention

Overall
Management of
the Convention



CONTRIBUTION OF MERCURY MONITORING TO THE CONVENTION

Mercury Monitoring Needs

	Relevant article	Monitoring need
Measures to reduce mercury risks	<ul style="list-style-type: none"><input type="checkbox"/> Articles 4-5: Products, processes<input type="checkbox"/> Article 7: ASGM<input type="checkbox"/> Articles 8-9: Emissions, releases<input type="checkbox"/> Article 11: Waste<input type="checkbox"/> Article 12: Contaminated sites	<ul style="list-style-type: none"><input type="checkbox"/> Mercury contents in <u>products</u>,<input type="checkbox"/> <u>Emissions</u> and <u>releases</u>,<input type="checkbox"/> Workplace environment and <u>exposure</u>,<input type="checkbox"/> Mercury waste and <u>contamination</u> survey
Provisions facilitating the implementation of measures	<ul style="list-style-type: none"><input type="checkbox"/> Article 16: Health<input type="checkbox"/> Articles 18-19: Information, awareness, research, monitoring	<ul style="list-style-type: none"><input type="checkbox"/> <u>Geographically representative</u> monitoring of levels in vulnerable population and in environmental media
Overall management of the Convention	<ul style="list-style-type: none"><input type="checkbox"/> Article 22: Effectiveness evaluation	<ul style="list-style-type: none"><input type="checkbox"/> <u>Presence</u> and <u>movement</u> in the environment<input type="checkbox"/> <u>Trend</u> in levels observed in biotic media and vulnerable population

Mercury
Monitoring and
the Minamata
Convention

Contribution of
Mercury
Monitoring to the
Convention

Types of Mercury Monitoring (1/2)

Monitoring type	Monitoring purpose	Monitoring media	Relevant article
Mercury content in product	<ul style="list-style-type: none"> <input type="checkbox"/> Custom control and market survey <input type="checkbox"/> Mercury stock and waste inventory 	<ul style="list-style-type: none"> <input type="checkbox"/> Batteries, lamps, cosmetics, pesticides, etc. <input type="checkbox"/> Waste containing mercury 	4, 11
Emissions and releases to environment	<ul style="list-style-type: none"> <input type="checkbox"/> Emission/release measures for mercury processes <input type="checkbox"/> Emission/release inventory and measures for relevant point sources 	<ul style="list-style-type: none"> <input type="checkbox"/> Exhaust, wastewater, groundwater 	5, 8, 9
Mercury contamination	<ul style="list-style-type: none"> <input type="checkbox"/> Assessment of contaminated site <input type="checkbox"/> Public information, awareness 	<ul style="list-style-type: none"> <input type="checkbox"/> Ambient air, environmental water, soil 	7, 12, 18
Waste management	<ul style="list-style-type: none"> <input type="checkbox"/> Mercury content and leaching potential of waste and mine tailing <input type="checkbox"/> Mercury stabilization 	<ul style="list-style-type: none"> <input type="checkbox"/> Waste consisting of and contaminated with mercury <input type="checkbox"/> Mine tailing 	7, 11

Mercury Monitoring and the Minamata Convention
Contribution of Mercury Monitoring to the Convention

Types of Mercury Monitoring (2/2)

Monitoring type	Monitoring purpose	Monitoring media	Relevant article
Workplace environment	<ul style="list-style-type: none"> <input type="checkbox"/> Vocational exposures from air, water and solid 	<ul style="list-style-type: none"> <input type="checkbox"/> Indoor air, drinking water, soil, dust, waste <input type="checkbox"/> Human hair, blood, urine 	5, 7, 11
Environmental health	<ul style="list-style-type: none"> <input type="checkbox"/> Methylmercury exposure for vulnerable population <input type="checkbox"/> Assessment of impact to human health and the environment 	<ul style="list-style-type: none"> <input type="checkbox"/> Human hair, blood, urine <input type="checkbox"/> Food (mainly fish), biotic media 	16, 19
Scientific advancement	<ul style="list-style-type: none"> <input type="checkbox"/> Mercury modelling <input type="checkbox"/> Geographically representative monitoring <input type="checkbox"/> Global mercury cycling, transformation and fate 	<ul style="list-style-type: none"> <input type="checkbox"/> Ambient air (hotspot and ambient), rainwater, ocean 	19
Effectiveness evaluation	<ul style="list-style-type: none"> <input type="checkbox"/> Presence and movement in atmosphere <input type="checkbox"/> Trend in biotic media and vulnerable population 	<ul style="list-style-type: none"> <input type="checkbox"/> Background air, rainwater <input type="checkbox"/> Food (mainly fish), human hair, blood, urine 	22

Mercury Monitoring and the Minamata Convention
Contribution of Mercury Monitoring to the Convention