

# Questions and answers: EU mercury policy and the ratification of the Minamata Convention

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#### Why is mercury a problem?

Mercury and most of its compounds are highly toxic to humans and the environment. Large amounts can be fatal, and even relatively low doses can have serious health effects, affecting the nervous system in particular. Mercury can change in the environment into a more complex and harmful compound called methylmercury. Methylmercury passes both the placental barrier and the blood-brain barrier, and can inhibit children's mental development even before birth. Methylmercury accumulates in fish and seafood, above all in large predatory fish, which may form part of people's diet.



What is the global situation regarding mercury?

Mercury is a global pollutant and is therefore a matter of international concern. Whereas EU mercury emissions have already dramatically fallen and are continuing to fall, global emissions continue to rise. This is largely a result of increased coal combustion for electricity in countries such as China and India. Global use of mercury remains high, at about 3,600 tonnes per year, though somewhat reduced compared to former decades.

A particularly problematic activity at the moment involves the use of mercury in artisanal small-scale gold mining, mostly in Africa, Asia and South America. It is estimated that between 10 and 15 million people (including 3 million women and children) are involved worldwide in artisanal mining and that this activity accounts for annual use of 1,400 tonnes of mercury, most of which ends up in the environment.

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## Where and to what extent is mercury still produced and used in the EU?

Production of mercury stopped in 2003 and the exports of mercury and of certain mercury compounds from the EU has been banned since 15 March 2011.

The intentional use of mercury in the EU has been steadily decreasing over the past 15 years, thanks to the adoption and implementation of a comprehensive set of EU rules restricting use in products, such as batteries, lamps and non-electronic measuring devices and in manufacturing processes, such as chlor-alkali production for which use of mercury is being phased out.

Apart from these intentional uses, there are unintentional emissions of mercury into the air from a number of activities using mercury containing fuels or raw materials. The most important are coal burning (for heating, cooking, power and steam generation and in industrial process plants), cement clinker production, non-ferrous metals production and waste incineration.

## How does the Minamata Convention on Mercury address the problem?

The Convention's main objective is "to protect human health and the environment from anthropogenic emissions and releases of mercury and mercury compounds".

The Convention covers the whole mercury life-cycle, from primary mining to waste disposal, and contains specific legally binding control measures, not just declarations of intent. Many of the provisions are directly inspired by EU legislation, including the ban on primary mining, the list of mercury-added products and mercury-using industrial processes that will be phased-out, as well as the use of best available techniques (BAT) to prevent and control unintentional industrial emissions of mercury into the air. It addresses also Artisanal and Small-scale Gold Mining (ASGM), as one of the most important mercury uses globally (national action plan required, less mercury use) threatening directly the health of the estimated 10-15 million people in such activity.

The sum of the measures set out in the Minamata Convention will be able to reverse the current increasing trend of mercury contamination in the environment and the food chain. The phase-out of primary mercury mining as well as the reduction of atmospheric mercury emissions will significantly reduce the addition of mercury to the quantity of mercury already present in the environment, and particularly in the food chain.

# In what areas has EU legislation been updated to fulfil the requirements of the Minamata Convention?

Six areas were identified where EU legislation was currently not adapted to the Minamata Convention, and which concerned (1) import of metallic mercury, (2) exports of mercury-added products (3) existing use of mercury in industrial processes, (4) new mercury uses in products and processes (5) artisanal small-scale gold mining and (6) use of dental amalgam.

## What are the new rules relating to the use of mercury in dental amalgam?

The EU Mercury Regulation addresses the issue of dental amalgam which is the largest remaining use of mercury in the EU. In particular, it sets both short and longer term measures to reduce use of dental amalgam and associated pollution. This includes:

- the prohibition to use amalgam for vulnerable populations (pregnant or breastfeeding women, children under 15 years old)

- the obligation to use pre-dosed encapsulated amalgam to reduce emissions and exposure in dental facilities and
- the duty to equip dental clinics with amalgam separators to prevent amalgam waste to be released into sewage systems and water bodies.

The Commission will have to report by June 2020 to the European Parliament and to the Council on the feasibility of ending dental amalgam use by 2030.

### What has existing EU policy and legislation on mercury achieved so far?

The <u>Community Strategy concerning Mercury</u>contributed to the development and strengthening of a comprehensive body of Union legislation addressing the various aspects of the mercury problem, while highlighting the need to give priority to the international negotiation process on a mercury treaty.

- *Mercury supply and trade*: <u>Regulation (EC) No 1102/2008</u> banned mercury exports from the EU as of 15 March 2011 and requires metallic mercury extracted from cinnabarto be disposed of as waste. Those requirements are taken over by the new Mercury Regulation.
- **Storage of mercury and mercury compounds**: Both the <u>SEVESO Directive</u> and <u>Industrial</u> <u>Emissions Directive</u> (IED) lay down requirements aiming at ensuring the environmentally-sound storage of metallic mercury and of mercury compounds.
- **Mercury-added products**: The mercury content, the placing on the market and the import into the EU of a wide range of mercury-added products (e.g. batteries, electrical and electronic equipment, thermometers,) is regulated in the <u>Battery</u> and the <u>ROHS</u> (switches, relays, lamps) Directives as well as the <u>REACH</u> and <u>cosmetic products</u> Regulations.
- Manufacturing processes: Whilst the production of chlor-alkali has been the most important manufacturing process using mercury, <u>Commission Implementing Decision 2013/732</u> prohibits such use as from 11 December 2017. Emissions of mercury from major industrial sources are regulated under the <u>Industrial Emissions Directive</u> (IED) which requires all installations to operate on the basis of a permit and to apply the best available techniques (BAT) including for <u>the</u> <u>production of cement, lime and magnesium oxide</u>.
- *Mercury emissions and releases to air, water and soil:* These are regulated by the <u>Industrial</u> <u>Emissions Directive</u> (IED) read in combination with the <u>Water Framework Directive</u> and with the <u>Surface Water Directive</u> that establishes maximum concentration levels of mercury into surface water bodies, sediment and biota.
- **Mercury waste management:** Metallic mercury as waste and waste containing or contaminated with mercury qualify in most cases as 'hazardous waste' under the <u>Waste Framework Directive</u>. The Landfill Directive sets in parallel specific requirements for the storage for more than one year of mercury waste to ensure that it stored in an environmentally sound manner.

### **Next steps**

The first meeting of the Conference of the Parties to the Minamata Convention on Mercury is scheduled to take place on 24-29 September 2017 in Geneva, Switzerland. It will culminate in a High-Level Segment on 28 and 29 September 2017 whereby the commitment of the international community to the Minamata Convention will be celebrated.

A series of implementing Decisions will be adopted at this meeting, including guidance documents in relation to mercury supply sources and trade and to the use of the best available techniques as a way to reduce mercury air emissions.

### For more information

Press release: EU protects citizens against toxic mercury, paves the way for global action

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