Dental Amalgam and the Mercury Regulation

Regulation (EU) 2017/852 (the Mercury Regulation), should be seen in the light of the EU Green Deal and its relevant Strategies such as the Zero Pollution Action Plan for a non-toxic environment and the New Action Plan on the Circular Economy.

EurEau welcomes and strongly supports the European Commission’s Proposal to amend the Mercury Regulation, banning the use, manufacture and export on dental amalgam from 2025, which will not only contribute to a long-term reduction of mercury in water bodies but also to the circular economy by allowing for a decrease of mercury in treated urban wastewater for reuse in agricultural irrigation and in sludge from wastewater treatment.

Introduction

Regulation (EU) 2017/852 (the Mercury Regulation), implementing the Minamata Convention, and addressing dental amalgam, should be seen in the light of the EU Green Deal and its relevant Strategies such as the Zero Pollution Action Plan for a non-toxic environment and the New Action Plan on the Circular Economy.

Mercury is a persistent, bio-accumulative and toxic substance that has been identified as a priority hazardous substance in the Water Framework Directive. For this reason, Directive 2008/105/EC (the Environmental Quality Standards Directive) sets Environmental Quality Standards for mercury, to protect the aquatic environment and human health.

According to the ‘State of Water Report’ by the European Environmental Agency covering the 2nd River Basin Management Plans (2015-2021), only 38% of surface water bodies were reported to be in good chemical status; 46% of water bodies failed to achieve good chemical status; and for 16% of surface water bodies the status is unknown.

Across Europe, mercury is one of the few substances responsible for a widespread failure to achieve good chemical status within 24 countries: out of a total of 111,062 surface water bodies, 45,973 are not achieving good status due to mercury contamination, equating to about 41% of all surface water bodies in Europe. If the widespread pollution by ubiquitous priority substances, including mercury, were omitted, the proportion of water bodies failing to achieve good chemical status would fall to 3%.

With this in mind, and considering that dental amalgam is the largest remaining intentional use of mercury in the European Union\(^2\), EurEau has consistently advocated for a phase out of dental amalgam for over 20 years. Hence, EurEau **welcomes and strongly supports the European Commission’s ban of dental amalgam as of 2025 in its Proposal to amend Regulation (EU) 2017/852** on mercury as regards dental amalgam and other mercury-added products subject to manufacturing, import and export restrictions, as it will contribute not only to protect water resources but also to meet the objectives of the European Green Deal, the EU Chemicals Strategy for Sustainability and the Zero Pollution Action Plan, as well as the New Action Plan on The Circular Economy.

**Dental amalgam and the Mercury Regulation**

As indicated in the Impact Assessment accompanying the Commission Proposal to amend Regulation (EU) 2017/852, dental amalgam is the largest remaining intentional use of mercury in the Union estimated at around 40 tonnes in 2019.

Article 10(2) of Mercury Regulation 2017/852 already sets a partial ban on the use of dental amalgam by prohibiting its use since 1 January 2018 for dental treatment of deciduous teeth and of vulnerable members of the population, i.e., children under the age of 15 and pregnant and breastfeeding women.

Mercury separators at dental care clinics only take care of a minor part of the mercury leakage to the environment. The main source of mercury is the leakage of dental amalgam from the daily erosion of the amalgam dental fillings. As such fillings can have a life time of several decades, a full ban is necessary today in order to realise a gradual reduction of mercury concentrations in the urban wastewater treatment plant influent. In fact, in countries such as Sweden, Norway and Denmark, where the use of dental amalgam was banned in dental clinics more than 20 years ago, water operators can see a decrease. In Sweden, a 60% decrease of the level of mercury is measured in the sludge produced at the urban wastewater treatment plants since the year 2000.

In August 2020, the Commission adopted its Review Report\(^3\) on the feasibility of phasing out the use of mercury in dental amalgam and other products. Both this report and the subsequent Commission’s impact assessment pointed to the appropriateness of presenting a legislative proposal to phase out the use of dental amalgam and to restrict the manufacture and export of certain mercury-containing lamps.

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EurEau has consistently advocated for a phase out of dental amalgam for over 20 years and, therefore, welcomes and strongly supports the amendments proposed for Article 10 of the Regulation 2017/852, which will ban from 1 January 2025:

- **the use of dental amalgam for dental treatment** of any member of the population, except when deemed strictly necessary by the dental practitioner based on the specific medical needs of the patient; and
- **the manufacture and export of dental amalgam**.

This full ban of dental amalgam will not only protect water resources, but also decrease the levels of mercury in treated urban wastewater for reuse in agricultural irrigation and in sewage sludge from waste water treatment. This will facilitate the reuse of the resultant high-quality sludge as a source of organic matter and nutrients in a truly circular economy. Since the quality of sludge in most Member States is improving over time, the relative importance of the pollution linked to mercury from dental amalgam is increasing and is now the major source of mercury to many, if not most, urban wastewater treatment plants in the EU.

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**About EurEau**

EurEau represents Europe’s drinking and waste water sector. We encompass 37 national water services associations including public and private operators from 32 countries.

Together we promote the access to safe and reliable water services for Europe’s citizens and businesses, the management of water quality and resource efficiency through effective environmental protection.