FIRST FULL NATIONAL REPORTS OF THE MINAMATA CONVENTION ON MERCURY 2021

MINAMATA CONVENTION ON MERCURY

REPORTING PERIOD:
16 August 2017 to 31 December 2020

▼ INFORMATION ON THE PARTY

1. Information on the party

Name of party
Ireland

Date on which its instrument of ratification, accession, approval or acceptance was deposited
18 March 2019

Date of entry into force of the Convention for the party
16 June 2019

2. Information on the national focal point

Full name of the institution
Department of The Environment, Climate and Communications

Title of National Focal Point
Ms.

Name of National Focal Point
Susan Fleming

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3. Information about the contact officer submitting the reporting format if different from the above

Focal Point is submitting the national report

- ○ Information is submitted by the national focal point
- ◉ Information is submitted through the national focal point by the contact officer

a3_subsection

Full name of the institution
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Title of contact officer
Ms

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▼ ART. 3: MERCURY SUPPLY SOURCES AND TRADE

3.1. Does the party have any primary mercury mines that were operating within its territory at the date of entry into force of the Convention for the party?

- ○ Yes
- ◉ No

Additional information on this question if needed
Not applicable

3.2. Does the party have any primary mercury mines that are now in operation that were not in operation at the time of entry into force of the Convention for the party?

- ○ Yes
- ◉ No

3.3. Has the party endeavoured to identify individual stocks of mercury or mercury compounds exceeding 50 metric tons and sources of mercury supply generating stocks exceeding 10 metric tons per year that are located within its territory?

- ◉ Yes
- ○ No

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*If the party answered Yes to Question 3 above:

i. Please attach the results of your endeavor or indicate where it is available on the internet, unless unchanged from a previous reporting round.
Unchanged from previous report

i. Please attach the results of your endeavor or indicate where it is available on the internet, unless unchanged from a previous reporting round.
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ii. Supplemental: Please provide any related information, for example on the use or disposal of mercury from such stocks and sources.
{Empty}

3.4. Does the party have excess mercury available from the decommissioning of chlor-alkali facilities?

- ○ Yes
- ◉ No

3.5. *Has the party received consent, or relied on a general notification of consent, in accordance with article 3, including any required certification from importing non-parties, for all exports of mercury from the party's territory in the reporting period?

- ☐ Yes, exports to parties
- ☐ Yes, exports to non-parties
- ☑ No

Additional information if needed
We have not received any notifications of exports

3.6. Has the party allowed the import of mercury from a non-party?

- ◉ No

Yes

The importing party has relied on paragraph 7 of article 3

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 4: MERCURY-ADDED PRODUCTS

4.1. Has the party taken any appropriate measures to not allow the manufacture, import or export of mercury-added products listed in Part I of Annex A of the Convention after the phase-out date specified for those products?

Yes

No

Yes (implementing paragraph 2 of article 4)

If yes, please provide information on the measures.
Implemented Mercury Regulation (EU) 2017/852 article 5 on export, import and manufacture of mercury added products.

4.3. Has the party taken two or more measures for the mercury-added products listed in Part II of Annex A in accordance with the provisions set out therein?

Yes

No

If yes, please provide information on the measures.
Measures include:
1. Phase out plan published, see https://www.gov.ie/en/publication/7bf771-national-plan-for-phase-down-to-phase-out-of-amalgam-towards-2030/#:~:text=Ireland%20supports%20a%20phase%20down,the%20National%20Oral%20Health%20Policy.
2. EU Mercury Regulation limit amalgam use to encapsulated form from 1 Jan 2019
3. EU Mercury Regulation require as from 1 July 2018, the use of dental amalgam is prohibited for dental treatment of (i) deciduous teeth, (ii) of children under 15 years and (iii) of pregnant or breastfeeding women, unless deemed strictly necessary by the dental practitioner on the ground of specific medical needs of the patient
4. EU Mercury Regulation require that from 1 January 2019 all dental practices dealing with amalgam fillings (insertion and removal) must have amalgam separators.
5. EPA funded research projects on dental amalgam
http://www.epa.ie/researchandeducation/research/researchpublications/researchreports/research307.html

4.4. Has the party taken measures to prevent the incorporation into assembled products of mercury-added products whose manufacture, import and export are not allowed under article 4?

Yes

No

If yes, please provide information on the measures.
EU Mercury Regulation (EU) 2017/852 Article 8 would address. RoHS Directive 2011/65/EU, Directive 2008/12 EC Batteries and Accumulators, REACH (1907/2006), Commission Regulation (EU) No. 847/2012 restricts use of mercury in several measuring devices, Commission Regulation (EU) No. 848/2012 prohibits manufacture, use & placing on the market of 5 phenylmercury compounds, and End of Life Vehicles Directive 2000/53/EC

4.5. Has the party discouraged the manufacture and the distribution in commerce of mercury-added products not covered by any known use in accordance with article 4, paragraph 6?

Yes

No

If yes, please provide information on the measures.
Yes discouraged the manufacture and distribution of mercury added products in accordance with Mercury Regulation (EU) 2017/852

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 5: MANUFACTURING PROCESSES IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED

5.1. Are there facilities within the territory of the party that use mercury or mercury compounds for the processes listed in Annex B of the Minamata Convention in accordance with paragraph 5 of article 5 of the Convention?

- ○ Yes
- ◉ No
- ○ I do not know

5.2. Are measures in place to not allow the use of mercury or mercury compounds in manufacturing processes listed in Part I of Annex B after the phase-out date specified in that Annex for the individual process?

CHLOR-ALKALI PRODUCTION

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

ACETALDEHYDE PRODUCTION IN WHICH MERCURY OR MERCURY COMPOUNDS ARE USED AS A CATALYST

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

5.3. Are measures in place to restrict the use of mercury or mercury compounds in the processes listed in Part II of Annex B in accordance with the provisions set out therein?

VINYL CHLORIDE MONOMER PRODUCTION

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

SODIUM OR POTASSIUM METHYLATE OR ETHYLATE

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

PRODUCTION OF POLYURETHANE USING MERCURY-CONTAINING CATALYSTS

- ○ Yes
- ○ No
- ◉ Not applicable (do not have these facilities)

5.4. Is there any use of mercury or mercury compounds in a facility using the manufacturing processes listed in Annex B that did not exist prior to the date of entry into force of the Convention for the party?

- ○ Yes
- ◉ No

5.5. Is there any facility that has been developed using any other manufacturing process in which mercury or mercury compounds are intentionally used that did not exist prior to the date of entry into force of the Convention?

- ○ Yes
- ◉ No

Part E – Additional comments on the article in free text if the party chooses to do so

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▼ ART. 7: ARTISANAL AND SMALL-SCALE GOLD MINING

7.1. Have steps been taken to reduce, and where feasible eliminate, the use of mercury and mercury compounds in, and the emissions and releases to the environment of mercury from, artisanal and small-scale gold mining and processing subject to article 7 within your territory?

- ○ Yes
- ○ No
- ◉ There is no artisanal and small-scale gold mining and processing subject to article 7 in which mercury amalgamation is used in the territory

7.2. Has the party determined and notified the secretariat that artisanal and small-scale gold mining and processing within its territory is more than insignificant?

- ○ Yes
- ◉ No

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 8: EMISSIONS

8.1. Identify any Annex D source categories for which there are new sources of emissions of mercury or mercury compounds as defined in paragraph 2 (c) of article 8.

For each of those source categories describe the measures in place, including the effectiveness of such measures, to implement the requirements of paragraph 4 of article 8.

- ☐ Coal-fired power plants
- ☐ Coal-fired industrial boilers
- ☐ Smelting and roasting processes used in the production of non-ferrous metals
- ☐ Waste incineration facilities
- ☐ Cement clinker production facilities

Has the party required the use of best available techniques or best environmental practices (BAT/BEP) to control and where feasible reduce emissions for new sources no later than 5 years after the date of entry into force of the Convention for the party?

- ○ Yes
- ◉ No

Please explain
No new sources

Attach relevant documentation
{Empty}

8.2. Identify any Annex D source categories for which there are existing sources of emissions of mercury or mercury compounds as defined in paragraph 2 (e) of article 8.

For each of those source categories, select and provide details on the measures implemented under paragraph 5 of article 8 and explain the progress that these applied measures have achieved in reducing emissions over time in your territory:

▼ COAL-FIRED POWER PLANTS

- ☑ A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- ☑ Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- ☑ Use of BAT/BEP to control emissions from relevant sources
- ☑ Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- ☑ Alternative measures to reduce emissions from relevant sources

Measures
A new source of renewable generation was established at the only coal-fired power plant in Ireland in 2017 with 18,716 MW Hrs being generated from the Wind Farm. In 2019 the wind farm generated 57,620 MW Hrs.

Progress

These technical upgrades have reduced mercury emissions, coupled with reduced operating hours as we move towards a total phase out of coal burning power generation in Ireland over the coming years.

▼ COAL-FIRED INDUSTRIAL BOILERS

- [ ] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [ ] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [ ] Use of BAT/BEP to control emissions from relevant sources
- [ ] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [ ] Alternative measures to reduce emissions from relevant sources

Measures
Not applicable as there are no coal-fired industrial boilers in Ireland

Progress
Not applicable as there are no coal-fired industrial boilers in Ireland

▼ SMELTING AND ROASTING PROCESSES USED IN THE PRODUCTION OF NON-FERROUS METALS

- [ ] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [ ] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [ ] Use of BAT/BEP to control emissions from relevant sources
- [ ] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [ ] Alternative measures to reduce emissions from relevant sources

Measures
Not applicable as no smelting or roasting processes used in the production of non-ferrous metals in Ireland

Progress
Not applicable as no smelting or roasting processes used in the production of non-ferrous metals in Ireland

▼ WASTE INCINERATION FACILITIES

- [x] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [x] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [x] Use of BAT/BEP to control emissions from relevant sources
- [x] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [x] Alternative measures to reduce emissions from relevant sources

Measures
Use of BAT/BEP and controlling of emission limit values are in place at these waste incineration facilities.

Progress
Mercury emissions are all declining and the majority are below the EU Pollutant Release & Transfer Register(EPRTR) reporting threshold.

▼ CEMENT CLINKER PRODUCTION FACILITIES

- [x] A quantified goal for controlling and, where feasible, reducing emissions from relevant sources
- [x] Emission limit values for controlling and, where feasible, reducing emissions from relevant sources
- [x] Use of BAT/BEP to control emissions from relevant sources
- [x] Multi-pollutant control strategy that would deliver co-benefits for control of mercury emissions
- [x] Alternative measures to reduce emissions from relevant sources

Measures
Use of BAT/BEP to control emissions from cement clinker production facilities, reporting under European Pollutant Release and Transfer Register (EPRTR) and use of alternative technologies all contribute to the reduction in emissions of mercury.

Progress

There is only 4 cement clinker production facilities in Ireland. Mercury emissions at these cement clinker production facilities are either stable or declining, due to controlled management and progressions in technology such as the substitution of fossil fuel with solid recovered fuel.

Have the measures for existing sources under paragraph 5 of article 8 been implemented no later than 10 years after the date of entry into force of the Convention for the party?

- (●) Yes
- ( ) No

8.3. Has the party prepared an inventory of emissions from relevant sources within 5 years of entry into force of the Convention for it?

- (●) Yes
- ( ) No
- ( ) Have not been a party for 5 years

If yes, when was the inventory last updated?
Thu, 03/25/2021 - 00:00

Please indicate where this inventory is available
Yes EPRTR is updated annually https://gis.epa.ie/EPAMaps/PRTR The 2019 data is published since 25/03/2021. The EPA reported the 2020 data to EC/EEA on 30/11/21
We have an informative inventory report under Convention on Long-range Transboundary Air Pollution (CLRTAP)
https://www.epa.ie/pubs/reports/air/airemissions/airpollutantemissions/iir2019/IIR_2019_Final%2001.05.19_Cover.v2.pdf
According to the EPA Ireland report 'Informative Inventory Report 2020 Air Pollutant Emissions in Ireland 1990 - 2018 reported to the Secretariat of the UNECE Convention on Long-Range Transboundary Air Pollution and the European Union' (https://www.epa.ie/publications/monitoring--assessment/climate-change/air-emissions/IIR_2020_Mergev2.pdf) the total national emissions of Hg have decreased from 0.83 t in 1990 to 0.30 t in 2018, a reduction of 63.6 per cent.

Attach
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8.4. Has the party chosen to establish criteria to identify relevant sources covered within a source category?

- ( ) Yes
- (●) No

8.5. Has the party chosen to prepare a national plan setting out the measures to be taken to control emissions from relevant sources and its expected targets, goals and outcomes?

- ( ) Yes
- (●) No

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 9: RELEASES

9.1. Are there, within the party's territory, relevant sources of releases as defined in paragraph 2 (b) of article 9?

- (●) Yes
- ( ) No
- ( ) I do not know

Please indicate the measures taken to address releases from relevant sources and the effectiveness of those measures.
EU Pollutant Release & Transfer Register (EPRTR) would indicate releases.
Mercury releases are limited under EU Industrial Emissions Directive 2010/75/EU (IED).
Measures relate to controlling upstream sources, so for example requiring amalgam separators in dental practices, controlling and limiting industrial emissions through licensing under the industrial emissions directive. Waste Electrical and Electronic Equipment (WEEE) Ireland https://www.weeeireland.ie/household-recycling/ and European Recycling Platform (ERP) schemes https://erp-recycling.org/ie/weee/?gclid=EAIaIQobChMIhJWJgJfe9AIV9MuGCh3PigTbEAAYASAAEgKwgfD_BwE are established for waste electrical and electronic equipment which segregate mercury waste streams which control waste management to prevent mercury contamination of other waste streams.

9.2. Has the party established an inventory of releases from relevant sources within 5 years of entry into force of the convention for it?

- ( ) Yes

- ( ) Relevant sources do not exist in the territory
- (•) Have not been a party for 5 years
- ( ) No

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 10: ENVIRONMENTALLY SOUND INTERIM STORAGE OF MERCURY, OTHER THAN WASTE MERCURY

10.1. Has the party taken measures to ensure that the interim storage of non-waste mercury and mercury compounds intended for a use allowed to a party under the Convention is undertaken in an environmentally sound manner?

- (•) Yes
- ( ) No
- ( ) I do not know

Please indicate the measures taken to ensure that such interim storage is undertaken in an environmentally sound manner and the effectiveness of those measures.
Interim storage (where required) of mercury, mercury compounds and mixtures of mercury must be carried out in an environmentally sound manner, in accordance with the thresholds and requirements set out in EU Directives 2012/18/EU and 2010/75/EU on Major Accident Hazards and Industrial Emissions.

Part E - Additional comments on the article in free text if the party chooses to do so

{Empty}

▼ ART. 11: MERCURY WASTES

11.1. Have measures outlined in article 11, paragraph 3, been implemented for the party's mercury waste?

- (•) Yes
- ( ) No

Please describe the measures implemented pursuant to paragraph 3, and please also describe the effectiveness of those measures.
Yes through European and national legislation including Mercury Regulation EU 2017/852, SI 533 of 2018- European Union (Mercury) Regulations 2018, Waste Management Acts 1996-Date. Under Waste Management Acts - permits are granted by EPA

11.2. Are there facilities for final disposal of waste consisting of mercury or mercury compounds in the party's territory?

- ( ) Yes
- (•) No
- ( ) I do not know

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 12: CONTAMINATED SITES

12.1. Has the party endeavoured to develop strategies for identifying and assessing sites contaminated by mercury or mercury compounds in its territory?

- (•) Yes
- ( ) No

Please elaborate
Industrial Emission Directive (Directive 2010/75/EU) -baseline report helps identify contaminated sites. Directive 2010/75/EU Articles 1, 2, 14, 15, 22, 46, and 72.
Environmental Liability Directive 2004/35/EC (on environmental liability with regard to the prevention and remedying of environmental damage) which was amended by Regulation (EU) 2019/1010 on the alignment of reporting obligations in the field of legislation related to the environment. Water Framework Directive 2000/60/EC, Landfill Directive (EU) 2018/850 and Integrated Pollution, Prevention & Control Directive 2008/1/EC .

Historic Mine Sites-Inventory & Risk Classification-Joint Study by Environmental Protection Agency and Geological Survey Ireland (https://www.epa.ie/publications/monitoring--assessment/assessment/historic-mine-sites---inventory-and-risk-classification-volume-1.php) under EU Directive 2006/21/EC on the management of wastes from the extractive industries

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 13: FINANCIAL RESOURCES AND MECHANISM

13.1. Has the party undertaken to provide, within its capabilities, resources in respect of those national activities that are intended to implement the Convention in accordance with its national policies, priorities, plans and programmes?

- (●) Yes
- ( ) No

Please specify
National Legislation on mercury SI 533 of 2018 sets out the roles and powers of competent authorities assigned to implement the obligations under the convention, in addition legislation relating to waste, water and emissions monitoring, products, and industrial licensing is also relevant.

Please provide comments, if any.
{Empty}

13.2. Supplemental: Has the party, within its capabilities, contributed to the mechanism referred to in paragraph 5 of article 13?

- (●) Yes
- ( ) No

Please specify
Irish assistance to developing countries is through the Global Environment Facility (GEF). Ireland maintained its level of contribution to the GEF over the previous round of funding (GEF6: 2014-2017 of €5.73m) and is currently meeting its funding pledges (€5.73m) during GEF7 which runs from 2018 to 2022.
In addition, Ireland supports the activities of the Minamata Convention Secretariat through its annual assessed contributions to the Convention General Trust Fund. In 2021, Ireland's assessed contribution was US$17,812.

Please provide comments, if any.
{Empty}

13.3. Supplemental: Has the party provided financial resources to assist developing-country parties and/or parties with economies in transition in the implementation of the Convention through other bilateral, regional and multilateral sources or channels?

- ( ) Yes
- (●) No

Please specify
We provide financial assistance through the GEF as per the answer to Q13.2. We provide overseas developmental aid (ODA) via our Ministry of Foreign Affairs. In 2019, Ireland contributed €870 million in ODA. Irish Aid - Department of Foreign Affairs (dfa.ie)

Please provide comments, if any.
{Empty}

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 14: CAPACITY-BUILDING, TECHNICAL ASSISTANCE AND TECHNOLOGY TRANSFER

14.1. Has the party cooperated to provide capacity-building or technical assistance, pursuant to article 14, to another party to the Convention?

- ( ) Yes
- (●) No

Please specify
We have had no explicit requests from another Party to the Minamata Convention. Ireland contributes annually to the Global Environment Facility (GEF) which supports developing countries and countries with economies in transition in their implementation of the Minamata Convention. Ireland could

consider deployment of such resources in the future.

14.2. Supplemental: Has the party received capacity-building or technical assistance pursuant to article 14?

- ○ Yes
- ◉ No

Please specify
Not applicable

Please provide comments, if any.
Not applicable

14.3. Has the party promoted and facilitated the development, transfer and diffusion of and access to, up-to-date environmentally sound alternative technologies?

- ◉ Yes
- ○ No
- ○ Other

Please specify
Ireland, as a member of the European Union (EU) is on track to becoming mercury-free thanks to its long-standing policy to cut pollution from mercury sources and phase out mercury from products and processes where technically and economically feasible. The EU requires the use of best available techniques to reduce emissions from all relevant industrial activities, especially coal combustion, waste incineration, cement production and the manufacture and smelting of metals. As a result, mercury emissions to the air and to water have reduced significantly.

In addition, the EU banned mercury-containing batteries, thermometers, barometers and blood pressure monitors. Mercury is also no longer allowed in most switches and relays found in electronic equipment. Energy-efficient lamps using mercury technology are only permitted on the market with a reduced mercury content.

From July 2018, the biggest remaining application for mercury in the EU, dental amalgam, was prohibited from use on vulnerable patients. Dental clinics have to install high-performance filters, which will significantly further reduce mercury releases to water. Further actions are envisaged to reduce and ultimately end the use of dental amalgam.

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 16: HEALTH ASPECTS

16.1. Have measures been taken to provide information to the public on exposure to mercury in accordance with paragraph 1 of article 16?

- ◉ Yes
- ○ No

Supplemental: If yes, describe the measures that have been taken.
a)- In March 2004, the Food Safety Authority of Ireland (FSAI) published advice on its website on “Mercury and Fish Consumption” https://www.fsai.ie/faq/mercury_and_fish_consumption.html . The webpage provides precautionary advice on the consumption of fish, particularly predatory fish (shark, swordfish, marlin and tuna), owing to the presence of mercury. The advice specifically advises vulnerable groups (pregnant and breastfeeding women, women of childbearing age and young children) to limit their intake of predatory fish, while continuing to consume other fish lower in mercury as part of a balanced diet. The fish consumption advice specifies certain species of concern and gives detailed recommendations on portion size. The advice also recognises the nutritional contribution that fish can make to the diet and specifies that; “Everyone should continue to eat one to two portions of fish per week including one portion of oily fish such as salmon”. This consumption advice is currently being reviewed in light of recent risk assessments completed by the European Food Safety Authority (EFSA) on perfluoroalkyl substances (PFAS) in 2020, and dioxins and dioxin-like polychlorinated biphenyls (PCBs) in 2018. Based on the available occurrence data, the FSAI has piloted a methodology to develop species-specific consumption advice which focuses on methyl mercury and dioxins and dioxin-like PCBs. Concurrent to this, the European Commission in conjunction with the EU Member States are working on a mandate to request EFSA to complete a risk-benefit assessment of fish consumption which may, in addition to PFAS, mercury and dioxins, also consider EFSA’s 2021 opinion on brominated flame retardants. To this end, the FSAI has postponed the finalisation of its species-specific consumption advice and will keep a watching brief on the progression of EFSA’s future risk-benefit assessment on fish consumption which will advise the completion of this work. It is also the intention that EFSA’s risk-benefit assessment of fish consumption will be finalised after the World Health Organisation’s Toxic Equivalency Factors (TEFs) for dioxins and dioxin-like PCBs have been revised. In January 2019, the FSAI published updated healthy eating guidelines titled “Healthy eating, food safety and food legislation – a Guide Supporting the Healthy Ireland Food Pyramid”. The guidelines reiterated advice previously issued by the FSAI on the consumption of fish and exposure to mercury.
The date(s) the measures were undertaken;
• 2004 - FSAI FAQ on “Mercury and Fish Consumption”
• 2019 - Updated healthy eating guidelines with advice on consumption of fish and mercury exposure. The outcome of the measures taken:
Biomonitoring has not been completed by the FSAI before and after the dissemination of this consumption advice. Some food frequency information on fish consumption is available through food consumption survey’s completed by the Irish Universities Nutrition Alliance from 1999 and 2011 for adults, which would allow a comparison of fish consumption before and after the dissemination of fish consumption advice in 2004. This comparison has not been done to date in any form of report or scientific publication. The FSAI is aware that the Health Service Executive (HSE) was involved in a European project “DEMOCOPHES” which ran from September 2010 to November 2012 and aimed to test a common approach for human biomonitoring surveys which was developed by the Consortium to Perform Human Biomonitoring on a European Scale (COPHES). The project produced data on the distribution

of specific biomarkers (including mercury) and related lifestyle data among defined study populations. One example of an Irish output from this study is in the following article by Cullen et al. 2014 “Mercury Exposure in Ireland: Results of the DEMOCOPHES Human Biomonitoring Study”. https://www.researchgate.net/publication/265729454_Mercury_exposure_in_Ireland_results_of_the_DEMOCOPHES_human_biomonitoring_study

b) Environmental Health Retail Sales of Cosmetic Products https://www.hse.ie/eng/services/publications/environmentalhealth/retail-sale-of-cosmetic-products.pdf HSA Document on 2007 Code of Practice for the Safety, Health and Welfare at Work (Chemical Agents) Regulations 2001 (S.I. No. 619 of 2001) https://www.hsa.ie/eng/Publications_and_Forms/Publications/Chemical_and_Hazardous_Substances/CoP_chemical_agent.pdf

c) Smile agus Sláinte, the National Oral Health Policy, https://www.gov.ie/en/publication/90687b-smile-agus-slainte-national-oral-health-policy/?referrer=http://www.health.gov.ie/blog/publications/smile-agus-slainte-national-oral-health-policy/ was published in April 2019. An integral part of this Policy is the phase-down of amalgam during the lifetime of the policy. Ireland’s National Plan for Phase-down to Phase-out of Amalgam towards 2030 https://assets.gov.ie/19422/18299e4340394a51801dae1fb29d4ade.pdf was submitted to the European Commission in July 2019.

d) The Department of the Environment, Climate and Communications in conjunction with the Lighting Industry compiled an information leaflet on CFL to prevent exposure to mercury.

16.2. Have any other measures been taken to protect human health in accordance with article 16?

- ○ Yes
- ◉ No

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 17: INFORMATION EXCHANGE

17.1. Has the party facilitated the exchange of information referred to in article 17, paragraph 1?

- ◉ Yes
- ○ No

Please provide more information, if any
Studies and reports have been published which provide relevant information including:

Health Research Board Study on Measures to reduce the clinical need for dental amalgam -Evidence Review
https://www.hrb.ie/fileadmin/2._Plugin_related_files/Publications/2020_publication-related_files/2020_HIE/Measures_to_reduce_the_clinical_need_for_dental_amalgam.pdf

European Pollutant Release & Transfer Register (EPRTR) and Air Quality Reports provide information on environmental emissions including mercury emissions from solid waste incineration and fossil fuel combustion, particularly from coal burning power plants.

Mercury Exposure in Ireland: Results of the DEMOCOPHES Human Biomonitoring Study-
https://www.ncbi.nlm.nih.gov/pmc/articles/PMC4199048/#:~:text=The%20majority%20of%20mercury%20emissions,recorded%20in%20the%20current%20study.

Food Safety Authority of Ireland Toxicology Series Factsheet- Mercury, Lead, Cadmium, Tin and Arsenic in Food
https://www.fsai.ie/WorkArea/DownloadAsset.aspx?id=8412

EPA Research 307: Study on Usage and Waste Management of Amalgam Dental Fillings and Mercury-free Alternatives
https://www.epa.ie/publications/research/waste/research-307.php

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 18: PUBLIC INFORMATION, AWARENESS AND EDUCATION

18.1. Have measures been taken to promote and facilitate the provision to the public of the kinds of information listed in article 18, paragraph 1?

- ◉ Yes
- ○ No

If yes, please indicate the measures that have been taken and the effectiveness of those measures
(i) Health and environmental effects of mercury and mercury compounds;
Cosmetics safety -the Health Service Executive Environmental Health (EHS) takes 20 planned skin lightening samples (such as creams and soaps) each year in line with the Cosmetics Surveillance Plan. These samples are tested for Mercury and other prohibited and restricted substances at the Public Analysts' Laboratories as per the Cosmetics Regulation (EC) No. 1223/09. Mercury is prohibited in cosmetic products. Additional samples are also taken from suspect consignments of cosmetics products at Import Stage if the need arises.

The EHS also follows up on the EU Rapid Exchange of Information System on unsafe consumer products and consumer protection (RAPEX) Alerts which are sent to the Service from the Health Products Regulatory Authority (HPRA). Some of these alerts contain details of skin lightening products found on

the EU market in other member states which have been found to contain mercury and other prohibited/restricted ingredients. Following on from this the EHS carries out surveillance checks in premises in Ireland to ensure that such products are not available on the Irish Market. These checks are important to ensure that sectors of the population who use these types of products are protected against harmful exposures from mercury. If any cosmetics products containing dangerous/prohibited ingredients are found on the Irish Market , suitable market action is taken in consultation with the HPRA.

Mercury has historically been a problem in some skin lightening products , where it is added as a lightening ingredient. Occasionally products containing mercury are found on the Irish Market, although the numbers of these have been declining in recent times. The EHS has also produced a leaflet for businesses for retailers involved in the potential sale of Skin Lightening products highlighting the dangers of Mercury.
Human Biomonitoring -the Health Service Executive(HSE) participated in a small pilot study in 2011-2012 as part of the DEMOCOPHES study.
The DEMOCOPHES study has been followed by the HBM4EU project https://www.hbm4eu.eu/about-hbm4eu/ . Ireland's involvement in this initiative has been limited due to capacity and resource limitations. Food Safety Authority of Ireland Toxicology Series Factsheet- Mercury, Lead, Cadmium, Tin and Arsenic in Food.
Mercury Exposure in Ireland https://www.mdpi.com/1660-4601/11/9/9760/htm and Food Safety Authority of Ireland Publications - https://www.fsai.ie/publications_metals_irish_diet/ https://www.fsai.ie/faq/mercury_and_fish_consumption.html and through HSE Publications for Pregnant Women such as https://www.cuh.hse.ie/Cork-University-Maternity-Hospital/Publications/Healthy-Eating-For-Pregnancy.pdf
Effectiveness is difficult to judge as we don't measure it.

(ii)Alternatives to mercury and mercury compounds; Smile agus Sláinte, the National Oral Health Policy, https://www.gov.ie/en/publication/90687b-smile-agus-slainte-national-oral-health-policy/?referrer=http://www.health.gov.ie/blog/publications/smile-agus-slainte-national-oral-health-policy/ was published in April 2019. An integral part of this Policy is the phase-down of amalgam during the lifetime of the policy. Ireland's National Plan for Phase-down to Phase-out of Amalgam towards 2030 https://assets.gov.ie/19422/18299e4340394a51801dae1fb29d4ade.pdf was submitted to the European Commission in July 2019. EPA Research Report Research 307: Study on Usage and Waste Management of Amalgam Dental Fillings and Mercury-free Alternatives https://www.epa.ie/researchandeducation/research/researchpublications/researchreports/research307.html
http://www.epa.ie/enforcement/chemicals/mercury/

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ ART. 19: RESEARCH, DEVELOPMENT AND MONITORING

19.1. Has the party undertaken any research, development and monitoring in accordance with paragraph 1 of article 19?

◉ Yes

○ No

If yes, please describe these actions
(a) Inventories of use, consumption, and anthropogenic emissions to air and releases to water and land of mercury and mercury compounds; Yes-through European Pollutant Release & Transfer Register (EPRTR)
(b) Modelling and geographically representative monitoring of levels of mercury and mercury compounds in vulnerable populations and in environmental media, including biotic media such as fish, marine mammals, sea turtles and birds, as well as collaboration in the collection and exchange of relevant and appropriate samples; -Oslo/Paris convention for the protection of the marine environment of the North-East Atlantic (OSPAR) Temporal and Spatial in shellfish, OSPAR distance to background https://ocean.ices.dk/ohat/trDocuments/2020/distance_lc_biota_metals.html
WFD monitoring programme (shellfish (sediment and water)) , EU Marine Strategy Framework Directive (MSFD) (OSPAR and Water Framework Directive(WFD) monitoring used to support the MSFD Article 17 reporting (Descriptor 8 contaminants and Descriptor 9 food safety) where Mercury is part of this process)-Fish from 1990s to present, Food safety programme in collaboration with Food Safety Authority of Ireland (FSAI) and Marine Institute, with Environmental Protection Agency(EPA) and Marine Institute for WFD and then also OSPAR . OSPAR assessment, none for marine mammals, none for sea turtles, and for seabirds "Legacy and emerging contaminants in common guillemot Uria aalge eggs in Ireland and Wales".(Power et al.) https://www.sciencedirect.com/science/article/pii/S0045653521016337 Marine Institute report-Assuring Seafood Safety - Contaminants and Residues in Irish Seafood 2004 to 2008. https://oar.marine.ie/bitstream/handle/10793/706/Assuring_Seafood_Safety.pdf?sequence=1&isAllowed=y Regular Mercury monitoring of fish at fishing ports. Marine Institute carrying out study on Contaminants in Seabird eggs https://www.marine.ie/Home/site-area/news-events/news/cullen-fellowship-research-contaminants-seabird-eggs
(c) Assessments of the impact of mercury and mercury compounds on human health and the environment, in addition to social, economic and cultural impacts, particularly in respect of vulnerable populations;
Yes as Health Service Executive (HSE) Partner in HBM4EU Project covers biomonitoring for mercury, Economic Impact-Economic benefits of methylmercury exposure control in Europe: Monetary value of neurotoxicity prevention https://ehjournal.biomedcentral.com/articles/10.1186/1476-069X-12-3

(d) Harmonized methodologies for the activities undertaken under subparagraphs (a), (b) and (c);
Yes, Food safety monitoring EU legislation, OSPAR CEMP methods, WFD Guidance documents and legislation on monitoring in water sediment and biota. EU Regulations on sampling and analysis: Commission Regulation (EC) No 333/2007 of 28 March 2007 laying down the methods of sampling and analysis for the official control of the levels of lead, cadmium, mercury, inorganic tin, 3-MCPD and benzo(a)pyrene in foodstuffs. An amendment to Regulation (EC) No 333/2007 specifically for fish consumption and accompanying guidance document is currently under discussion at EU level. Annual monitoring for mercury in finfish aquaculture, in fish landed at main Irish ports and in bivalve molluscs is carried out as part of various monitoring programmes involving the Marine Institute (MI), the FSAI, the Department of Agriculture, Food and the Marine (DAFM) and the Sea Fisheries Protection Authority (SFPA). The MI annually collects shellfish (primarily mussels and oysters) from shellfish growing waters around the Irish coast and samples of fish from the main Irish ports for the analyses of environmental contaminants, including mercury. Residues of mercury in finfish aquaculture and wild birds is monitored as part of the National Residue Control Programme (NRCP), which is in fulfilment of official control requirements relating to maximum residues limits and is co-ordinated by DAFM in collaboration with the MI, SFPA and the FSAI. Each year, 10 samples of fish are sampled by the MI and 10 samples of wild birds are sampled by the Local Authority Veterinary Service (LAVS) for mercury analysis as part of the NRCP. Over the period 2004 to 2008 (McGovern et al., 2011), levels of mercury in finfish (including farmed finfish), bivalve molluscs, and crustaceans consistently complied with the EU maximum levels (established in Regulation 1881/2006 as amended), with mean levels in finfish (322 samples from 27 fish species) ranging from 0.04 mg/kg in farmed salmon and trout to 0.25 mg/kg in spurdog (n = 60). Low levels of mercury in Irish farmed salmon were confirmed in 2011-2014, when the highest mercury concentration measured in 41 samples analysed was 0.07 mg/kg (Glynn et al., 2013, 2015). The mean mercury level in Irish blue mussels (n = 125) was 0.03 mg/kg, with a highest level of 0.05 mg/kg, while the mean for Pacific oysters was 0.02 mg/kg and for native oysters was 0.03 mg/kg.
Annual monitoring of mercury and methyl mercury in fish, shellfish, crustaceans and seaweed is carried out as part of the Irish National Chemical Sampling Programme (NCSP) in fulfilment of official controls concerning maximum levels established in Commission Regulation (EC) 1881/2006 as

amended. From 2017-2021, there were 181 results determined for mercury and 83 results determined for methyl mercury for the food category "Fish, Shellfish & Molluscs" under the NCSP. In 2016, the FSAI published a report "Metals of Toxicological Importance in the Irish Diet" https://www.fsai.ie/publications_metals_irish_diet/ providing an overview of the geochemical and food occurrence of metals, including mercury, in Ireland. The report includes information on the spatial distribution of mercury content in Irish soil adapted from the "Soil Geochemical Atlas of Ireland (Fay et al., 2007)" https://www.teagasc.ie/media/website/publications/2011/Soil_Geochemical_AtlasofIreland.pdf. Furthermore, the report aimed to evaluate the exposure of the Irish population (>18 years of age and children aged 5-12 years) and conclude on any possible risks to the health of the Irish population arising from these metals (FSAI 2016a, FSAI 2016b). In 2016, the FSAI published its "Report on a Total Diet Study carried out by the Food Safety Authority of Ireland in the period 2012 - 2014" . https://www.fsai.ie/publications_TDS_2012-2014/ This study involved the analyses of a number of substances in commonly consumed food in Ireland, including mercury in fish. Occurrence data and consumption data from the Irish Universities Nutrition Alliance food consumption surveys (National Adult Nutrition Survey and National Children's Food Survey) were used to estimate exposure. Exposures were compared to the most recent health-based guidance values available from the European Food Safety Authority (EFSA) in order to characterise any potential risk to the Irish population. For mercury, exposure was found to be well below the EFSA Provisional Tolerable Weekly Intake for both adults and children. For both the adult and child populations, intake of white fish (52% and 59% respectively) and canned fish (29% and 36% respectively) were found to be the major contributors to dietary exposure. Fish, particularly predatory fish (such as shark, marlin, swordfish and fresh tuna) were recognised to be the major source of exposure to mercury in the diet. It was also acknowledged that since fish consumption in Ireland is below the EU average, Irish consumers are unlikely to be at risk from this source.
2011 - McGovern, E., McHugh, B., O'Hea, L., Joyce, E., Tlustos, C. & Glynn, D., "Assuring Seafood Safety: Contaminants and Residues in Irish Seafood 2004-2008", Marine Institute 2011
• 2013 - Glynn, D., McGovern, E., Slattery, T., Ó Conchubhair, D., Toomey, M., Kelly, C., Reid, A. and Moffat, R. (2013). Chemical Residue in Irish Farmed Finfish, 2011. Marine Environment & Health Series, No. 39: Marine Institute.
• 2015 - Glynn, D., Kelly, C., Moffat, R., Reid, A., Toomey, M., O'Hea, L., Elliot, M., Hickey, C., Geary, M, Ruane, N. and McGovern, E. (2013). Chemical Residue in Irish Farmed Finfish, 2012-2014. Marine Environment & Health Series, No. 40: Marine Institute.
• 2016a FSAI - Report of the Scientific Committee of the Food Safety Authority of Ireland - Metals of Toxicological Importance in the Irish Diet
• 2016b FSAI - Report on a Total Diet Study carried out by the Food Safety Authority of Ireland in the period 2012 - 2014
• 2019 EFSA - Report for 2019 on the results from the monitoring of veterinary medicinal product residues and other substances in live animals and animal product

(f) Information on commerce and trade in mercury and mercury compounds and mercury-added products; and
Yes from Revenue and Central Statistics Office(CSO) search for mercury on PX Stat database - No records for 20135270 Compounds; inorganic and organic, of mercury, chemically defined as or for 20135275 Compounds; inorganic or organic, of mercury not chemically defined for the following years 2015 to 2020.
(g) Information and research on the technical and economic availability of mercury-free products and processes and on best available techniques and best environmental practices to reduce and monitor emissions and releases of mercury and mercury compounds. Ireland, as a member of the European Union (EU) is on track to becoming mercury-free thanks to its long-standing policy to cut pollution from mercury sources and phase out mercury from products and processes where technically and economically feasible. The EU requires the use of best available techniques to reduce emissions from all relevant industrial activities, especially coal combustion, waste incineration, cement production and the manufacture and smelting of metals. As a result, mercury emissions to the air and to water have reduced significantly.

In addition, the EU banned mercury-containing batteries, thermometers, barometers and blood pressure monitors. Mercury is also no longer allowed in most switches and relays found in electronic equipment. Energy-efficient lamps using mercury technology are only permitted on the market with a reduced mercury content.

From July 2018, the biggest remaining application for mercury in the EU, dental amalgam, was prohibited from use on vulnerable patients. Dental clinics have to install high-performance filters, which will significantly further reduce mercury releases to water. Further actions are envisaged to reduce and ultimately end the use of dental amalgam. Health Research Board (HRB) Measures to reduce the clinical need for dental amalgam-Evidence review
https://www.hrb.ie/fileadmin/2._Plugin_related_files/Publications/2020_publication-related_files/2020_HIE/Measures_to_reduce_the_clinical_need_for_dental_amalgam.pdf
EPA Research Report No 307 Study on Usage and Waste Management of Amalgam Dental Fillings and Mercury-free alternatives
https://www.epa.ie/publications/research/waste/Research_Report_307.pdf

Part E - Additional comments on the article in free text if the party chooses to do so

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▼ COMMENTS

Part C: Comments regarding possible challenges in meeting the objectives of the Convention (Art. 21, para. 1)

{Empty}

▼ SUPPLEMENTAL - ADDITIONAL COMMENTS

Supplemental: Part D: Comments regarding the reporting format and possible improvements, if any

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