Mercury maximum levels

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New Regulation reduces maximum levels of mercury for several frequently consumed fish species and sets maximum level for salt

Commission Regulation (EC) 2022/617 of 12 April 2022 amending Regulation (EC) No 1881/2006 as regards maximum levels of mercury in fish and salt

Update

The EU has published Commission Regulation 2022/617 setting out maximum levels of mercury in fish and salt. It lowers the maximum level from 0.5 to 0.3 mg/kg for many fish species frequently consumed in the EU, and introduces a maximum level for salt.

Impacted products

live fish, fresh/chilled fish, frozen fish, cephalopods, marine gastropods, salt

What is changing?

The EU is reducing maximum levels of mercury for several fish species, taking into account a margin to lower the maximum levels for mercury in these species. It is increasing the maximum allowed levels for several other species/groups, taking into account the beneficial effects of fish consumption. See Table 1 for details.

The maximum levels for valuable export commodities such as marlin, shark, swordfish and tuna are being maintained at the current level of 1.0 mg/kg wet weight pending further scientific assessment and knowledge on the effectiveness of consumption advice in reducing the exposure.

The EU has set a maximum level of 0.1 mg/kg for mercury in salt, in line with the Codex Alimentarius.

This Regulation amends Regulation (EC) 1881/2006 (subsequently replaced by Regulation (EU) 2023/915).

Why?

Maximum concentrations of mercury in fish, seafood and their products regularly exceed levels allowed by the European Commission. To protect particularly against the neurodevelopmental toxicity of methylmercury, the consumption of fish and seafood species with a high content of mercury should be limited.

Timeline

Published 13 April 2022

Entry into force 3 May 2022

What are the major implications for exporting countries?

This Regulation has potential implications for some of the fish and seafood species most widely imported into the EU. The maximum levels for valuable export commodities such as marlin, shark, swordfish and tuna for the time being are maintained at the current level of 1.0 mg/kg wet weight. These species often high mercury content, therefore third countries exporting these commodities to the EU should anticipate future regulatory change potentially affecting these species.

Recommended Actions

Exporters of halibut, marlin, shark, swordfish and tuna should urgently initiate a review of existing levels of mercury in these products.

In cases of levels exceeding the EU's limits, further initiatives must be undertaken to identify and reduce exposure.

Information on recommended methods of sampling and analysis of mercury in foodstuffs can be found in Commission Regulation 333/2007.

Background

In 2012, the EFSA identified potential dietary exposure among EU citizens to mercury and methylmercury in food at levels that exceeded established the tolerable weekly intake (TWI) for inorganic mercury (4 µg/kg) and methylmercury (1.3 µg/kg). Mercury is an environmental contaminant that is present in fish and seafood products largely as methylmercury.

People who frequently consume large predatory fish, such as swordfish, tuna and halibut, may have a considerably higher intake of methylmercury and exceed the TWI. Methylmercury is highly toxic, particularly to the nervous system. The developing brain is thought to be the most sensitive target organ for methylmercury toxicity. Consumers of large amounts of fish would be particularly vulnerable. Consumers with high intake (95th percentile) would exceed the TWI in all age groups.

Regulation 2022/617 also increases the maximum allowed levels for several species/groups, and decreases the levels for others. The maximum levels for those fish species are modified taking into account the beneficial effects of fish consumption. In addition, Codex Alimentarius has established the maximum levels for mercury in salt that can be appropriately introduced into EU legislation.

Resources

EFSA (2012) Scientific Opinion on the risk for public health related to the presence of mercury and methylmercury in food. EFSA Journal, 10(12): 2985.

EFSA (2014) Scientific Opinion on health benefits of seafood (fish and shellfish) consumption in relation to health risks associated with exposure to methylmercury. EFSA Journal, 12(7): 3761.

EFSA (2015) Statement on the benefits of fish/seafood consumption compared to the risks of methylmercury in fish/seafood. EFSA Journal, 13(1): 3982.

Sources

Commission Regulation (EU) 2022/617

Commission Regulation (EC) No 1881/2006

Visit the AGRINFO website to view the latest AGRINFO Update newsletters and search the database.

Table & Figures

Table 1 Mercury maximum levels		
Product	Maximum levels (mg/kg wet weight)	
	New	Previous
Fishery products and muscle meat of fish, excluding species listed in the rows below.*	0.50	0.50
Muscle meat of the following fish: Axillary seabream (*Pagellus acarne*) Black scabbardfish (*Aphanopus carbo*) Blackspot seabream (*Pagellus bogaraveo*) **Bonito (*Sarda sarda*)** Common pandora (*Pagellus erythrinus*) Escolar (*Lepidocybium flavobrunneum*) Halibut (*Hippoglossus* species) **Kingklip (*Genypterus capensis*)** **Marlin (*Makaira* species)** **Megrim (*Lepidorhombus* species)** Oilfish (*Ruvettus pretiosus*) Orange roughy (*Hoplostethus atlanticus*) **Pink cusk-eel (*Genypterus blacodes*)** **Pike (*Esox* species)** **Plain bonito (*Orcynopsis unicolor*)** **Poor cod (*Tricopterus* species)** Red mullet (*Mullus barbatus barbatus*) Roundnose grenadier (*Coryphaenoides rupestris*) Sail fish (*Istiophorus* species) Silver scabbardfish (*Lepidopus caudatus*) Snake mackerel (*Gempylus serpens*) **Sturgeon (*Acipenser* species)** Surmullet (*Mullus surmuletus*) **Tuna (*Thunnus* species, *Euthynnus* species, *Katsuwonus pelamis*)** **Shark (all species)** **Swordfish (*Xiphias gladius*)**	1.0	**
Cephalopods Marine gastropods Muscle meat of the following fish: Anchovy (*Engraulis* species) Alaska pollock (*Theragra chalcogrammus*) Atlantic cod (*Gadus morhua*) Atlantic herring (*Clupea harengus*) Basa (*Pangasius bocourti*) Carp (species belonging to the Cyprinidae family) Common dab (*Limanda limanda*) Mackerel (*Scomber* species) European flounder (*Platichthys flesus*) European plaice (*Pleuronectes platessa*) European sprat (*Sprattus sprattus*) Mekong giant catfish (*Pangasianodon gigas*) Pollock (*Pollachius pollachius*) Saithe (*Pollachius virens*) Salmon and trout (*Salmo* species and *Oncorhynchus* species, except *Salmo trutta*) Sardine or pilchard (*Dussumieria* species, *Sardina* species, *Sardinella* species and *Sardinops* species) Sole (*Solea solea*) Striped catfish (*Pangasianodon hypothalamus*) Whiting (*Merlangius merlangus*)	0.30	0.50
Salt	0.10	No limit

* The maximum level for crustaceans applies to muscle meat from appendages and abdomen. In the case of crabs and crab-like crustaceans (Brachyura and Anomura), it applies to muscle meat from appendages.
** For fish in bold, no change of maximum level. The other fish listed were previously subject to the general maximum level of 0.5 mg/kg.
Source: Commission Regulation (EU) 2022/617, Annex

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