

foodwatch e. V.

**Opinion submitted to the German Federal Environment Ministry
(BMUB), Email from 6 July 2015**

Reference no.: IG II 2-61077-1/21

Methylmercury

1. The problem:

Methylmercury is produced through the addition of a methyl group to mercury. This methylation process is primarily assisted by microorganisms. Methylmercury is over 100 times more toxic than mercury. According to EFSA, approx. 90% of the total mercury in fish is present in the form of methylmercury, because microorganisms in water convert much of the dissolved mercury into methylmercury. Studies conducted by EFSA show that more than 90% of the methylmercury in the human body comes from dietary sources.

The following statement from the Germany Federal Government was published in a press release (No. 055/09) from the Federal Ministry for the Environment on 20 February 2009:

“Mercury and its compounds are highly toxic to humans and the environment; it is persistent and accumulates in the environment. Furthermore, mercury can be dispersed over vast distances, circulating through air, water and soil. High doses can be fatal to humans, but even small amounts can cause damage to the nervous, cardiovascular, immune and reproductive systems – especially in unborn children. Mercury-pollution levels are particularly high in oceans, lakes, rivers and streams. This is also where mercury is converted into methylmercury, its most toxic form. It accumulates in aquatic species, especially in fish. Particularly high levels are found in sharks and other predators at the top of the food chain, including swordfish and tuna. Owing to the fact that saltwater fish undertake long migrations and edible fish species

are traded globally, mercury contamination affects not only the coastal inhabitants of certain regions, but basically everyone who consumes fish.” (underlining by foodwatch)

2. Legal situation:

Statutory maximum levels (MLs) for mercury in all foodstuffs have been set on an EC-wide basis under Commission Regulation (EC) No. 1881/2006 (for contaminant levels) and Commission Regulation No. 396/2005 (for residue levels).

Regulation (EC) 1881/2006 applies to fish and food supplements and has established three different maximum levels for these foodstuffs:

1. A maximum level of 0.5 mg/kg applies in general to fishery products and the muscle meat of fish.
2. A maximum level of 1.0 mg/kg applies, as an exception, to the muscle meat of certain species listed by the Regulation, including bonito, pike, anglerfish, all shark species, tuna and swordfish.
3. A maximum level of 0.1 mg/kg applies to food supplements.

For all other foodstuffs, the strict maximum residue levels established by Regulation (EC) 396/2005 apply.

3. Proposal from the Directorate-General SANTE:

An EU position paper dated 29 May 2015, which was submitted to foodwatch through the German Federal Environment Ministry (BMUB) for its opinion, proposes a weakening of the current strict limits for toxic mercury in foodstuffs and, therefore, a worsening of consumer health protection throughout the EU. Its initial proposals for new maximum mercury levels for fish were derived from actual mercury concentrations measured in various fish species.

The decisive unit for these calculations is the “95th percentile value” (P95), i.e. the mercury level at or below which 95% of the samples fall. The P95 value is not based on health impacts, but instead mirrors the actual mercury levels in foods; as per the definition of P95, the top 5% of the measured values are factored out.

On the basis of the measured P95 values for contamination, the position paper proposes the following three maximum levels:

- A **lowering** of the maximum level to 0.1 mg/kg: for salmon and trout, the P95 value calculated from 1,579 samples was 0.055 mg/kg. According to the proposal, a new maximum level of 0.1 mg/kg could, in the future, replace the current maximum level of 0.5 mg/kg. This reduction of the maximum level could also be made applicable to numerous other fish species.

- The **maintenance** of existing maximum levels: for other species of fish (e.g. all tuna species), the calculated P95 values indicate that the current maximum level should be maintained.
- The **raising** of current maximum levels to 2 mg/kg: for all shark species and in particular the swordfish (P95 of 2.916 mg/kg for 202 samples), the position paper proposes that the maximum levels be raised to 2 mg/kg.

4. Discussion of the proposal from the Directorate-General SANTE:

The measured P95 values are representative of the actual mercury levels in various fish species excluding the top 5%.

Statutory maximum levels are established with the aim of safeguarding consumer health in the EU.

The measurement of P95 values that are significantly lower than the current maximum level of 0.5 mg/kg established by Regulation (EC) 1881/2006 has no affect on consumers' actual exposure to mercury: it is likely that the contamination levels of the respective fish species were approximately the same (i.e. just as low) *prior* to the measurement as they were *at the time of* the measurement.

This means that **no actual health benefits (i.e. positive effects) can be achieved for consumers by lowering the maximum permitted level to 0.1 mg/kg.**

Hence, there is also no justification for raising the maximum permitted levels for certain (predatory) fish species (e.g. sharks, swordfish) whose mercury-contamination levels are particularly high. Allowing the sale of fish with twice the level of mercury contamination (2 mg/kg instead of the previous 1.0 mg/kg) would lead to a significantly *higher* consumer exposure to mercury than under the current legislation.

In practical terms, this means that the proposed changes to the maximum levels would raise the mercury exposure of the population, resulting in increased health risks!

Furthermore, these risks cannot be reduced by means of official "recommendations for dietary intake" because, once the permitted maximum level of mercury has been doubled, any consumption of the respective fish products could entail the ingestion of twice the amount of mercury as would be possible under the current legislation.

In this respect, the only responsible "recommendation for intake" would be the prohibition of sale of predatory fish species, such as shark and swordfish, with high levels of mercury contamination.

5. Demands:

foodwatch is calling on the EU to maintain the currently applicable maximum mercury levels, in particular for fish and fishery products as per Regulation (EC) 1881/2006 in unchanged form.

Under no circumstances should the currently applicable maximum mercury level for any fish species be raised, even if a decision is made to reduce the maximum levels permitted for certain fish species with “naturally” low levels of contamination.

Furthermore, the legally binding strict limits set for mercury by the EU regulation for residues (Reg. 396/2005) should not be revised upwards, and the presence of mercury in food (other than fish and other seafood) should continue to be regulated as a residue under Regulation 396/2005 rather than as a contaminant under Regulation 1881/2006.

Under no circumstances should the consumers’ exposure to toxic mercury be further increased.

Instead, we call upon the EU, as well as its Member States, to implement the measures set out in the United Nations Minamata Convention on Mercury (entry into force expected for late 2016) as quickly as possible in their respective spheres of authority and influence and to thereby systematically reduce mercury emissions. In particular, the use of pesticides containing heavy metals must be banned as soon as possible.

Berlin, 7 August 2015

A handwritten signature in black ink, appearing to read 'Matthias Wolfschmidt', with a long horizontal stroke extending to the right.

Matthias Wolfschmidt

(Deputy Managing Director)