

MAC ADVICE

Analysis for Dioxins and Dioxin-like Polychlorinated Biphenyls (PCBs) in Fish Oil

Brussels, 25 May 2021

1. Background

In the EU, approved fishmeal factories are allowed to produce fish oil from fish by-products sampled at approved companies processing fish for human consumption. These by-products are either mixed or selected by species. The latter can be derived from farmed fish or from wild catch.

The frequency and scale of fish oil analysis for the presence of dioxins and dioxin-like PCBS are defined by Regulation (EC) No 183/2005¹. Concerning the frequency of analysis by feed business operators producing fish oil, subparagraph c), paragraph 2, of section “Dioxin Monitoring for Oils, Fats and Derived Products” of Annex II determines that analysis must be carried out for:

- (i) 100 % of the batches of fish oil if it is produced from:
 - products derived from fish oil other than refined fish oil;
 - fisheries with no monitoring history, of unspecified origin or from the Baltic Sea;
 - fish by-products from establishments manufacturing fish for human consumption that are not EU approved;
 - blue whiting or menhaden;
- (ii) 100 % of the outgoing batches of products derived from fish oil other than refined fish oil;

¹ Regulation (EC) No 183/2005 of the European Parliament and of the Council of 12 January 2005 laying down requirements for feed hygiene

- (iii) (iii) one representative analysis per 2 000 tonnes as regards fish oil not referred to in (i);
- (iv) (iv) fish oil decontaminated by an officially approved treatment as referred to in Annex VIII of Regulation (EC) No 767/2009 and in Commission Regulation (EU) 2015/786 shall be analysed and documented as part of the HACCP system.

2. Variations in Interpretation

The interpretation of legal requirements concerning the frequency and scale of dioxin analysis differs between veterinary authorities, certifying private institutions (e.g., QS, GMP+) and seafood operators.

Veterinarian authorities usually refer to point (i) of the mentioned paragraph and require 100% of analysis for each batch of fish oil. Private certifiers tend to also require 100% of analysis based on their own risk analysis. Feed business operators consider point (iii) to be the appropriate legal reference, because no products from fish oil are produced. A crude fish oil derived from fish by-products is produced, of which the origin is known and is not the Baltic Sea, sampled by fish processors approved by the European Commission, and that does not include blue whiting or menhaden.

Analyses carried out by the fish meal and oil industry at certified laboratories on fish oil from farmed salmon (*Salmo salar*) are consistently well below the limits set, demonstrating that there is no increased risk for high dioxin loads in salmon oil. Farmed fish is fed with aquafeed that is controlled for its dioxin contents. Since production batches are usually quite small (20-50 tonnes), high analysis costs are generated for the business operators.

3. Recommendations

In relation to the production fish oil derived from farmed fish, in order to allow the investment of resources into other projects to optimise feed safety and to reduce risk from other unwarranted substances, the MAC believes that the European Commission should:

- a) Clarify the application of the different points under subparagraph c), paragraph 2, of section “Dioxin Monitoring for Oils, Fats and Derived Products” of Annex II of Regulation (EC) No 183/2005;
- b) Amend Regulation (EC) No 183/2005, so that point (iii) reads “(one representative analysis per 2 000 tonnes as regards fish oil not referred to in (i) or fish oil exclusively produced from aquaculture fish”;
- c) Acknowledge that one representative analysis per 2 000 tonnes or one analysis per year would be sufficient to monitor the risk of dioxins and dioxins-like PCBs in fish oil exclusively produced from farmed fish.