Mineral oil hydrocarbons in food

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Regulation

Summary Report of the Standing Committee on Plants, Animals, Food and Feed: Section *Novel Food and Toxicological Safety of the Food Chain*, 21 April 2022

What is changing and why?

As mineral oil aromatic hydrocarbons (MOAH) are dangerous to humans, the EU is discussing setting maximum permitted levels of MOAH in food.

The EU Member States agreed in April 2022 that they should withdraw or recall products from the market where levels of MOAH are higher than the following limits of quantification (LOQ):

- 0.5 mg/kg for dry foods with a low fat/oil content (≤4% fat/oil)
- 1 mg/kg for foods with a higher fat/oil content (>4% fat/oil, ≤50% fat/oil)
- 2 mg/kg for fats/oils or foods with >50% fat/oil.

But these limits are not set in EU law. The European Commission now intends to reinforce these limits by putting maximum levels in law. This is expected to increase the food industry's monitoring of MOAH.

Mineral oil hydrocarbons fall into two main classes:

- mineral oil aromatic hydrocarbons (MOAH)
- mineral oil saturated hydrocarbons (MOSH).

The regulatory focus is mainly on MOAH, for which health risks have been identified due to their genotoxicity and carcinogenicity. Currently there are no EU limits for MOSH in food.

AGRINFO has produced a Guide that provides further information on mineral oil hydrocarbons, their origins and effects, the regulatory intentions of the EU, the sectors most affected, and actions required by sectors to prepare for compliance with new rules: Mineral Oil Hydrocarbons in Food: An Introduction to Upcoming EU Regulation (also available in French and Spanish).

Actions

There are many potential sources of mineral oil hydrocarbons, and testing for them is complex. Suppliers of food in all sectors should increase monitoring of MOAH to identify any presence in their products. When MOAH or MOSH are identified in food, suppliers should check all steps of the supply process, identify the sources, and develop measures to avoid further contamination. For further guidance on analysing MOAH and preventing their presence in foods, see the Full record.

Timeline

Discussions on MOAH will continue in 2024. The European Commission aims to adopt maximum levels for MOAH in the second half of 2024 or the first half of 2025.

For more information see the full record on the AGRINFO website – where you can also view the latest AGRINFO Update newsletters and search the database.