

Declaración (ES)

MOSH / MOAH AQ-QM-ST-010.07

Los aceites minerales (MOH) son mezclas complejas derivadas del petróleo crudo y están presentes de manera casi universal en nuestro entorno. Sus componentes pueden infiltrarse de muchas maneras en los alimentos de origen vegetal y animal.

Actualmente, los aceites minerales pueden estar presentes en una amplia variedad de alimentos, ya que se pueden encontrar tanto en alimentos básicos como en productos ya procesados, en cualquier punto de la cadena de producción y comercialización de alimentos.

En cuanto surgió este tema, Agroproducciones Oleaginosas S.L estableció un plan de control para determinar la presencia de MOSH (Mineral Oil Saturated Hydrocarbons) y MOAH (Mineral Oil Aromatic Hydrocarbons) en aceites vegetales y aceites de oliva, de acuerdo con la recomendación europea sobre el control de hidrocarburos de aceites minerales en alimentos y materiales y objetos en contacto con alimentos - Recomendación (UE) 2017/84 de la Comisión, de 16 de enero de 2017.

Asimismo, Agroproducciones Oleaginosas S.L viene aplicando las recomendaciones de las distintas asociaciones de la industria alimentaria y del sector de los aceites vegetales y aceites de oliva en relación con la minimización de estos compuestos, entre las que destacan FEDIOL y Food Drink Europe / BLL, recogidas en el documento " Preventing transfer of undesired Mineral Oil Hydrocarbons into food" - FoodDrinkEurope BLL Toolbox.

Agroproducciones Oleaginosas S.L sigue de cerca todos los avances en este ámbito. Dada la evidencia de la presencia de MOAH en determinados alimentos (informe Foodwatch, diciembre de 2021), y las aplicaciones de diferentes límites para MOAH por parte de distintos Estados miembros de la UE, la Comisión ha propuesto, en 2022, un límite armonizado, habiendo recomendado su aplicación en anticipación a la publicación del informe científico de la EFSA (European Food Safety Authority) sobre este tema.

En el informe resumido de la reunión del 21 de abril de 2022, el SCoPAFF - Standing Committee on Plants, Animals, Food and Feeds / Section Novel Food and Toxicological Safety of the Food Chain (Comisión Europea), se recomienda que, para garantizar un enfoque de aplicación uniforme en toda la UE, los Estados miembros acuerden retirar y, en caso necesario, recuperar productos del mercado cuando la suma de las concentraciones de MOAH en los alimentos sea igual o superior a los siguientes LOQ (Límites de Cuantificación) máximos:

- 0,5 mg/kg para alimentos secos bajos en grasa/aceite ($\leq$ 4% grasa/aceite)
- 1 mg/kg para alimentos con alto contenido de grasa/aceite ($>$ 4% de grasa/aceite)
- 2 mg/kg para grasas/aceites

En septiembre de 2023, la EFSA publicó su dictamen científico sobre la evaluación del riesgo de los hidrocarburos de aceites minerales en los alimentos. Este dictamen constituye la base para la introducción prevista de niveles máximos de MOAH.

Cabe destacar que las principales conclusiones del dictamen científico de la EFSA fueron las siguientes:

- Teniendo en cuenta los últimos estudios científicos realizados hasta ahora, los MOSH no representan un riesgo para la salud pública en los niveles de exposición actuales, por lo tanto, no son necesarios límites para estos compuestos.
- En el caso de los MOAH, se destacan cuestiones críticas de naturaleza genotóxica y carcinogénica para compuestos con 3 o más anillos aromáticos (actualmente difíciles de analizar), mientras que para aquellos con 1 o 2 anillos se necesita más información para tener una evaluación toxicológica satisfactoria.
- Se necesita más información sobre los niveles de compuestos MOAH con 3 o más anillos aromáticos en los alimentos.
- El método analítico para el análisis de aceites minerales necesita ser mejorado en términos de selectividad, sensibilidad y repetibilidad.

La Comisión Europea reiteró, durante el foro de partes interesadas sobre aceites minerales el 18 de enero de 2024 que, al evaluar la conformidad de un producto tras el análisis de MOAH, se debe tener en cuenta la incertidumbre analítica debido a la complejidad de integrar las señales analíticas (actualmente se considera realista un valor de incertidumbre de 50%).

A finales de 2023, la Comisión de la UE presentó un primer borrador de Reglamento para establecer niveles máximos de hidrocarburos aromáticos de aceites minerales (MOAH). El objetivo es incorporar estos niveles máximos (ML) en el Reglamento (UE) 2023/915 de la Comisión, de 25 de abril de 2023, relativo a los límites máximos de determinados contaminantes en los alimentos. Además, actualmente se está debatiendo una propuesta de recomendación de monitoreo para los hidrocarburos saturados de aceites minerales (MOSH), con el fin de definir los requisitos para la minimización de riesgos mediante valores indicativos (IL).

Agroproducciones Oleaginosas S.L ha seguido los trabajos de análisis y comentarios de las propuestas de la Comisión Europea por parte de FEDIOL y Food Drink Europe, aunque todavía no se han publicado valores legalmente regulados.

También solicita a sus proveedores que realicen una evaluación de riesgos de sus procesos productivos, teniendo en cuenta las materias primas utilizadas, procesos, contaminación medioambiental, lubricantes utilizados y materiales en contacto con los alimentos, entre otros.

En base al último borrador publicado por la Comisión Europea en 3 de junio de 2025, los nuevos límites y fechas de aplicación son los siguientes:

TABLA: límites y fechas de aplicación

5.5	Mineral Oil Aromatic Hydrocarbons (≥C10 to ≤C50)	Maximum levels (mg/kg)	Remarks
5.5.1	Oilseeds and oil fruits	2,0	
5.5.2	Animal ⁽²⁾ and vegetable fats and oils		Essential oils, lampante and crude olive pomace oil are not included in this category.
5.5.2.1	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat.		
5.5.2.1.1	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat other than those listed under 5.5.2.1.2.	2,0	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.1.2	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.2	Groundnut, sesame, coconut, cereal germ and cereal bran oils.		
5.5.2.2.1	Groundnut, sesame, coconut, cereal germ and cereal bran oils other than those listed under 5.5.2.2.2.	6,0 from 01/01/2027 4,0 from 01/01/2028 2,0 from 01/01/2030	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.2.2	Groundnut, sesame, coconut, cereal germ and cereal bran oils which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.3	Grape seed, cotton seed, blackcurrant seed and argan oils.		
5.5.2.3.1	Grape seed, cotton seed, blackcurrant seed and argan oils other than those listed under 5.5.2.3.2.	10,0 from 01/01/2027 5,0 from 01/01/2028 2,0 from 01/01/2030	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.3.2	Grape seed, cotton seed, blackcurrant seed and argan oils which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.4	Olive pomace oil ⁽⁷⁾ and refined olive pomace oil ⁽⁷⁾	10,0 from 01/03/2028 5,0 from 01/03/2029 2,0 from 01/01/2030	
5.5.2.6	Olive oils other those listed in 5.5.2.4.	4,0 from 01/03/2027 2,0 from 01/01/2028	
5.5.2.7	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5 and 5.5.2.6.		This category includes cocoa butter. ⁽¹⁴⁾
5.5.2.7.1	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5, 5.5.2.6 and 5.5.2.7.2.	4,0 from 01/01/2027 2,0 from 01/01/2028	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.7.2	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5, 5.5.2.6 and which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.8	Products derived from fats and oils listed under 5.5.2.1, 5.5.2.6 and 5.5.2.7 and products containing > 50% fat/ oil content, which only contain fats and oils listed under 5.5.2.1, 5.5.2.6 and 5.5.2.7.	2,0 from 01/01/2028	Products derived from fats and oils are defined as products containing > 80% of fats and oils. The fat/oil content refers to the declared fat/oil content or, in absence of a declared fat/oil content, to the fat/oil content as determined by the competent authority.

Mayo 2026

Agroproducciones Oleaginosas S.L

Statement (EN)

MOSH / MOAH AQ-QM-ST-010.07

Mineral oils (MOH) are complex mixtures derived from crude oil and are almost universally present in our environment. Their constituents can infiltrate into foods of plant and animal origin in many ways.

Currently, mineral oils may be present in a wide variety of foods, as can be found in both basic foodstuffs and already processed products, at any point in the food production and trade chain.

As soon as this topic arose, Agroproducciones Oleaginosas S.L. has established a control plan to determine the presence of MOSH (Mineral Oil Saturated Hydrocarbons) and MOAH (Mineral Oil Aromatic Hydrocarbons) in vegetable oils and olive oils, in accordance with the European recommendation on the monitoring of mineral oil hydrocarbons in food and food contact materials and articles – Commission Recommendation (EU) 2017/84 of 16 January 2017.

In the same way, Agroproducciones Oleaginosas S.L. has been applying the recommendations of various associations of the food industry and the vegetable oils and olive oils sector, regarding the minimization of these compounds, among which are FEDIOL and Food Drink Europe / BLL, and which are included in the document “Preventing transfer of undesired Mineral Oil Hydrocarbons into food” - FoodDrinkEurope BLL Toolbox.

Agroproducciones Oleaginosas S.L. has been closely monitoring all developments in this area. Given the evidence of the presence of MOAH in certain foods (Foodwatch report, December 2021), and the applications of different limits for MOAH by different EU Member States, the Commission has proposed a harmonized limit, recommended for use, in advance to the EFSA's (European Food Safety Authority) scientific report on this subject.

In the summary report of the meeting of 21 April 2022, the SCoPAFF – Standing Committee on Plants, Animals, Food and Feed/ Section Novel Food and Toxicological Safety of the Food Chain (European Commission), it is recommended that, in order to ensure an uniform enforcement approach throughout the EU, the Member States agreed to withdraw and, if necessary, recall products from the market, when the sum of the concentrations of MOAH in food is equal to or greater than the following maximum LOQs (Limits of Quantification):

- 0.5 mg/kg for dry foods with low fat/oil content ($\leq 4\%$ fat/oil)
- 1 mg/kg for foods with a higher fat/oil content ($> 4\%$ fat/oil)
- 2 mg/kg for fats/ oils

In September 2023, the EFSA published its scientific opinion on the risk assessment of mineral oil hydrocarbons in food. This opinion forms the basis for the planned introduction of maximum levels for MOAH.

It should be noted that the main conclusions of the EFSA's scientific opinion are the following:

- Considering the scientific research performed so far, MOSH do not represent a risk to public health at current exposure levels, therefore limits on these compounds are not necessary.
- For MOAH, critical issues of a genotoxic and carcinogenic nature are highlighted for compounds with 3 or more aromatic rings (currently hard to analyse), while for those with 1 or 2 rings more data is needed in order to have a satisfactory toxicological evaluation.
- More data are needed on the levels of MOAH compounds with 3 or more aromatic rings in food.
- The analytical method for the analysis of mineral oils needs to be improved in terms of selectivity, sensitivity and repeatability.

The European Commission reiterated, during the stakeholder forum on mineral oils held on January 18, 2024, that when evaluating the conformity of a product following the MOAH analysis, the analytical uncertainty must be considered due to the complexity of integrating the analytical signals (currently, an uncertainty value of 50% is considered realistic).

At the end of 2023, the EU Commission presented a first Draft Regulation to establish maximum levels for mineral oil aromatic hydrocarbons (MOAH). The aim is to integrate these maximum levels (ML) into the Commission Regulation (EU) 2023/915 of 25 April 2023, on maximum levels for certain contaminants in food. In addition, a proposal for a monitoring recommendation for saturated mineral oil hydrocarbons (MOSH) is currently under discussion to define requirements for risk minimisation via indicative values (IL).

Agroproducciones Oleaginosas S.L. has been following the analysis/ commentary work on the European Commission's proposals by FEDIOL and Food Drink Europe, although no legally regulated values have yet been released.

It also asks its suppliers to carry out a risk assessment of their production processes, considering the raw materials used, processes, environmental contamination, lubricants used and materials in contact with food, among others.

Based on the latest draft published by the European Commission on May 13, 2026, the new limits and application dates are as follows:

TABLE: limits and application dates.

5.5	Mineral Oil Aromatic Hydrocarbons ($\geq C_{10}$ to $\leq C_{50}$)	Maximum levels (mg/kg)	Remarks
5.5.1	Oilseeds and oil fruits	2,0	
5.5.2	Animal ⁽²⁾ and vegetable fats and oils		Essential oils, lampante and crude olive pomace oil are not included in this category.
5.5.2.1	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat.		
5.5.2.1.1	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat other than those listed under 5.5.2.1.2.	2,0	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.1.2	Maize, rapeseed, sunflower, soybean and linseed oils and dairy butter and fat which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.2	Groundnut, sesame, coconut, cereal germ and cereal bran oils.		
5.5.2.2.1	Groundnut, sesame, coconut, cereal germ and cereal bran oils other than those listed under 5.5.2.2.2.	6,0 from 01/01/2027 4,0 from 01/01/2028 2,0 from 01/01/2030	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.2.2	Groundnut, sesame, coconut, cereal germ and cereal bran oils which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.3	Grape seed, cotton seed, blackcurrant seed and argan oils.		
5.5.2.3.1	Grape seed, cotton seed, blackcurrant seed and argan oils other than those listed under 5.5.2.3.2.	10,0 from 01/01/2027 5,0 from 01/01/2028 2,0 from 01/01/2030	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.3.2	Grape seed, cotton seed, blackcurrant seed and argan oils which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.4	Olive pomace oil ⁽⁷⁾ and refined olive pomace oil ⁽⁷⁾	10,0 from 01/03/2028 5,0 from 01/03/2029 2,0 from 01/01/2030	
5.5.2.6	Olive oils other those listed in 5.5.2.4.	4,0 from 01/03/2027 2,0 from 01/01/2028	
5.5.2.7	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5 and 5.5.2.6.		This category includes cocoa butter. ⁽¹⁴⁾
5.5.2.7.1	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5, 5.5.2.6 and 5.5.2.7.2.	4,0 from 01/01/2027 2,0 from 01/01/2028	This category includes oils which are placed on the market to the final consumer or used as an ingredient in food.
5.5.2.7.2	Oils and fats other than those listed in 5.5.2.1, 5.5.2.2, 5.5.2.3, 5.5.2.4, 5.2.5.5, 5.5.2.6 and which are destined for further refining and are labelled as such.	2,0 from 01/01/2030	
5.5.2.8	Products derived from fats and oils listed under 5.5.2.1, 5.5.2.6 and 5.5.2.7 and products containing > 50% fat/ oil content, which only contain fats and oils listed under 5.5.2.1, 5.5.2.6 and 5.5.2.7.	2,0 from 01/01/2028	Products derived from fats and oils are defined as products containing > 80% of fats and oils. The fat/oil content refers to the declared fat/oil content or, in absence of a declared fat/oil content, to the fat/oil content as determined by the competent authority.

May 2026

Agroproducciones Oleaginosas S.L