

Mineral oils and plastics in food contact packaging

Study on MOAH (mineral oil aromatic hydrocarbons), and MOSH (mineral oil saturated hydrocarbons), also POSH (polyolefinic oligomeric saturated hydrocarbons) as well as PAO (poly alpha olefins) found in foodstuffs have raised questions about our customer's safety. According to these studies, above substances can be potentially migrating from plastic packaging (PE and PP). MOAH, MOSH, POSH and PAO can be found in additives, processing aids and lubricants.

Substance	CAS No.	Abbreviation	Fraction
n-Undecane	1120-21-4	n-C 11	MOSH, POSH, POA
n-Tridecane	629-50-5	n-C 13	
Bicyclohexyl	92-51-3	Cycy	
5 α -Cholestane	481-21-0	Cho	
1-Methylnaphthalene	90-12-0	1 MN	MOAH
2-Methylnaphthalene	91-57-6	2 MN	
1,3,5-Tri-tert-butylbenzene	1460-02-2	TBB	
Perylene	198-55-0	PER	
Pentylbenzene	538-68-1	5 B	

Assessments and Measures

In 2009, the German Federal Institute for Risk Assessment (BfR) has issued a warning regard-ing the direct contact of large surface dry foods with recycled cardboard. As short term option, the changeover to virgin fibre products or the use of inner bags effectively blocking migration such as aluminium or PET bags are recommended.

In 2013, the European Food Safety Authority (EFSA) published a Scientific Opinion question-ing the relevance of previous toxicological animal studies for humans.

Food packagings are subject to EU Regulation 1935/2004 and may not be harmful to consumer health.

The BfR suggested the following indicative values for mineral oils in food:

- C10 – 16: 12 mg/kg food
- C17 – 20: 4 mg/kg food

In January 2017, the European Union issued a recommendation on the monitoring of mineral oil hydrocarbons. According to a Draft German National Mineral Oil Regulation, packagings from recycling materials are only marketable, if the migration of MOAH (C16 –C35) does not exceed 0.5 mg/kg food.

To control possible contamination of the products supplied by Tech Folien Ltd we can confirm that we do not process any paper based materials and all supplied raw material are aware of above. There is no MOAH/MOSH, POSH/PAO intentionally added to our products or raw materials that we use. From the information supplied to us we are assured that these are not present in any of the raw materials used in production of any product that is supplied by tech Folien Ltd. To protect the product from cross-contamination we can also confirm that our site conform to below standards and legislation:

- BRC Global Standard for Packaging and Packaging Materials
- Regulation (EU) 10-211 on plastic materials and articles intended to come into contact with food
- Regulation (EC) No. 1935/2004 on materials and articles intended to come into contact with food
- Regulation (EC) No. 2023/2006 on Good manufacturing practice for materials and articles intended to come into contact with food

This information is provided in good faith based on our current knowledge and understanding and ma be based in part upon information supplied to us by third parties. The information shall not be used in substitution for customer's own work necessary to ensure that products are fully satisfactory for specific applications and are compliant with applicable laws. Tech Folien Ltd. does not warrant that use of any of its product is appropriate for all applications. Due to evolving nature of knowledge and legislation, statements may not remain valid indefinitely.



Agnieszka Tobola
Quality Manager
Tech Folien Ltd

Liverpool, 02/08/2019