

# Mineral oil in food and materials and articles intended to come into contact with food

ADVISORY GROUP ON THE FOOD CHAIN AND ANIMAL AND PLANT HEALTH
PLENARY MEETING
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# EFSA Scientific Opinion on Mineral Oil Hydrocarbons in Food

- Potential concerns in relation to exposure to MOH through food
- Several uncertainties
  - Chemical composition of MOH mixtures to which humans are exposed
  - Wide range of sources of human exposure
  - New information on the lack of toxicological relevance for humans of previous animal studies



### Mineral oil hydrocarbons

- Group of mixtures of hydrocarbons
  - Thousands of chemical compounds
  - Different structures and size
- Derived mainly from crude oil
- Also produced synthetically
  - from coal, natural gas and biomass



#### Possible sources of MOH in food

- Food packaging materials
  - Recycling process, printing inks
- Food additives
  - Limited use in EU
- Processing aids
  - Rolling of cans, pesticide carriers
- Environmental contaminants
  - Lubricants (harvest, food production)



#### MOSH and MOAH

- Mineral oil saturated hydrocarbons
  - background exposure via food in Europe of potential concern
- Mineral oil aromatic hydrocarbons
  - genotoxic and carcinogenic
  - insufficient information both on exposure and toxicology for quantitative risk assessment
  - Potential concern for carcinogenicity



#### Uncertainties

- Methods of analysis
  - Certified reference material, method development, method validation, distinction MOSH vs. MOAH
- Increase data collection and monitoring
  - Relevant food groups, identify sources of contamination, include recycled paperboard



# Monitoring recommendation

- Covers wide range of food commodities (incl. packaging materials)
  - animal fat, bread and rolls (including fine bakery ware), breakfast cereals, confectionery (including chocolate) and cocoa, fish meat, fish products (canned fish), grains for human consumption, ices and desserts, oilseeds, pasta, products derived from cereals, pulses, sausages, tree nuts, vegetable oils, as well as food contact materials used for those products
- investigation into possible source
- 2017-2018





# Monitoring recommendation

- Increased awareness for all involved actors
- Increased laboratory capability and capacity
- Better view on sources

 Allows for targeted and evidence based future measures



#### Thank you for your attention

Question?

frank.swartenbroux@ec.europa.eu