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These are some of the conclusions of a draft scientific opinion Opinions include risk assessments on general scientific issues, evaluations of an application for the authorisation of a product, substance or claim, or an evaluation of a risk assessment that was launched for public consultation today and updates EFSA’s previous risk assessment A specialised field of applied science that involves reviewing scientific data and studies in order to evaluate risks associated with certain hazards. It involves four steps: hazard identification, hazard characterisation, exposure assessment and risk characterisation of mineral oil hydrocarbons in food. Mineral oil hydrocarbons (MOH) comprise a wide range of chemical compounds obtained mainly from petroleum distillation and refining. They are categorised into two main groups referred to as MOSH and MOAH. “For MOSH, adverse effects on the liver were observed in a specific strain A subtype of a microbe defined by its genetic make-up; for example, in the case of Escherichia coli O157, the 'O157' part of the name refers to the strain of rat, but the evidence suggests that these effects are not relevant for humans. Therefore, we were able to rule out a risk for public health,” said James Kevin Chipman, Chair of the working group on mineral oil hydrocarbons. Experts also looked at two different types of MOAH, concluding for one that it may contain genotoxic substances that can damage DNA A complex chain-like molecule that carries the genetic material, present in living organisms and some viruses. DNA (deoxyribonucleic acid) is capable of copying itself and carries the instructions for all the proteins used to create and sustain life in cells and may cause cancer. For genotoxins like these it is not possible to establish a safe level. Little information is available on the occurrence The fact or frequency of something (e.g. a disease or deficiency in a population) happening of MOAH in food, so experts worked on two different predictive scenarios, both of which indicated a possible health concern using a margin of exposure A tool used in risk assessment to explore safety concerns arising from the presence of a potentially toxic substance in food or animal feed approach. Mineral oil hydrocarbons in food MOH can enter food in many ways - through environmental contamination, use of lubricants for machinery, release agents, processing aids, food or feed additives and migration from food contact materials. They have been found in a variety of foods, which typically contain higher levels of MOSH than MOAH. The highest levels of MOH were found in vegetable oils and the highest exposure Concentration or amount of a particular substance that is taken in by an individual, population or ecosystem in a specific frequency over a certain amount of time was estimated for young people, especially infants who have been fed exclusively with infant formula containing high levels of MOSH. Recommendations Experts recommended that more research is done to quantify the presence of MOAH in food and that toxicity The potential of a substance to cause harm to a living organism data are collected to better assess the risks they pose. For MOSH, it is important to keep studying the possible long-term effects on human health. What happens next? You can submit your comments here until 30 April 2023. Once finalised, our scientific advice will help inform the European Commission and EU Member States consider risk management The management of risks which have been identified by risk assessment. It includes the planning, implementation and evaluation of any resulting actions taken to protect consumers, animals and the environment action. Mineral oil hydrocarbons (MOH) are a diverse group of chemical compoundsmainly derived from petroleum distillation and refining.They are divided into two main categories based on their chemical structure:Mineral oil saturated hydrocarbons (MOSH)Mineral oil aromatic hydrocarbons (MOAH)MOH in foodMineral oil hydrocarbons can enter food in many ways - through environmental contamination, use of lubricants for machinery, release agents, processing aids, food or feed additives and migration from food contact materials.Vegetable oilsDairy productsCrisps, ready-toeat meals/saladsCereals (and cereal-based products)Baby foodLegumes, nuts, oil seeds and spicesCanned fishChocolate (and chocolate products)Health impactThe potential human health impact of MOH varies widely. MOSH, which are known to accumulate in the liver and lymphoid system, do not present a public health risk at current levels of dietary exposure. One type of MOAH may contain genotoxic substances that can damage DNA in cells and may cause cancer. For substances such as these, a safe level cannot be established.EU in actionIn the EU system, different actors work closely to protect public health by assessing and managing risks as well as monitoring the presence of MOH in our food.EFSA assesses the risks for humans posed by MOH throughout the food chain. Data on their presence in food is gathered through continuous data collection.EU regulations require Member States to monitor MOH presence in food following the guidance provided by the European Commission's Joint Research Centre.The European Commission and Member States consider EFSA's work for risk management actions.