

TOX/2025/06

Committee on Toxicity of Chemicals in Food, Consumer Products and the Environment

Update on actions taken subsequent to COT advice – Paper for information

Background

1. During 2024, COT statements have been published on:
 - Bamboo,
 - Aircraft Cabin Air,
 - Turmeric and curcumin,
 - Green Tea Catechins,
 - Lead in the maternal diet,
 - Microplastics: Inhalation route,
 - Raspberry leaf tea in the maternal diet,
 - Titanium dioxide (E171),
 - Vitamin D in formula fed children,
 - Bisphenol A.

2. A joint statement with FCM JEG was published on tetra-methyl Bisphenol F Diglycidyl Ether (TMBPF-DGE).

3. An interim position paper has also been published on:
 - Chitosan in bio-based food contact materials.

4. COT opinions are frequently cited by the relevant Government Departments and Agencies in dealing with correspondence.

5. The Food Standards Agency (FSA) and UK Health Security Agency (UKHSA) routinely uses the Committee's conclusions and opinions in risk assessments following food safety incidents, drinking water exceedances, responding to queries from consumers or members of the public and in assessing emerging risks. For

instance, COT advice was used by the FSA in a recent incident involving mis-labelled infant formula.

6. This paper contains brief information on other actions taken subsequent to completion of recent COT discussions. This should be read in conjunction with the draft text of the Annual Report (paper TOX/2025/06), which provides the background.

COT Evaluations

Titanium dioxide

7. After the discussions at COT and COM, it was agreed that the toxicity and genotoxicity of titanium should be reviewed following the publication of the 2021 EFSA opinion. This review has now been completed and a health-based guidance value established. This information has been provided to the policy team, who in consideration of all of the evidence will not be changing current risk management advice.

Bamboo

8. In May 2022, following the publication of the interim position statement by the COT, the FSA and FSS confirmed the legal status of these products and instructed industry to stop selling plastic food contact materials containing bamboo and similar unauthorised plant-based materials such as rice husks, wheat straw and hemp as a precautionary measure and called for evidence to assess the long-term safety of these products. In 2024, following consideration of the data submitted by the call for evidence and the publication of the bamboo statement, the FSA and FSS confirmed the advice to consumers not to use plastic containers or utensils containing bamboo and other unauthorised plant-based materials and to dispose of or repurpose for non FCM use. Businesses were also reminded again not to sell such products as they are non-compliant with the legislation and come with safety concerns.

Aircraft Cabin Air

9. The Department for Transport and Civil Aviation Authority (CAA) continue to use COT advice in responding to question around aircraft cabin air. In addition, CAA updated its [frequently asked questions webpage](#) to include reference to the 2024 COT statement.

BPA

10. Following extensive discussions on bisphenol A (BPA) the COT adopted the TDI established by the BfR. This information has been provided to the policy team, who are developing risk management advice.

TMBPF-DGE

11. The Joint Expert Group on Food Contact Materials (FCMJEG), the Committee on Toxicity of Chemicals, Consumer Products and the Environment (COT) and the Committee on Mutagenicity (COM), for their specific expertise discussed all data and information on TMBPF-DGE that was provided to the FSA. Overall, when considering all available information, the available data did not identify a safety concern for the usage of TMBPF-DGE in can coatings.

12. Given that there is no legislative framework in place for the assessment of substances in can coatings nor the ability to create or amend a positive list at present, the FSA policy team does not anticipate formal authorisation of TMBPF-DGE but will take into account the finalised risk assessment in their risk management considerations. The objective will be to ensure that it appropriately sets out operator requirements and expectations.

13. The FSA and FSS concluded that TMBPF-DGE is safe and is not liable to have any adverse effects on human health or on environmental safety at expected levels and intended conditions of use and allowed it to be used as a coating in canned food packaging following specific restrictions set out on the Dutch commodities act.

Maternal diet

14. Work continues on the maternal diet, with statements now having been published on lead and raspberry leaf tea. Work has commenced on a review of the mycotoxin citrinin, and the supplements echinacea and calcidiol. Work continues to progress on ergot alkaloids and ginger supplements.

Other Committee activities

Regulated Products

15. The Committee has commented on number of AEJEG and FCM JEG opinions on various regulated products. These are being finalised prior to publication.

16. The FSA are now using the Scholastica publication tool for the [Journal of Food Standards](#) to publish all FSA science reports. Since April 2024, three AEJEG and 2 FCMJEG assessments have been published:

[Safety Assessment RP1466 2-Hydroxy-4-methoxybenzaldehyde,](#)

[Safety Assessment on Product E 401 \(Sodium Alginate\) Used as a Surface Treatment in Entire Fruits and Vegetables,](#)

[Safety Assessment: Outcome of assessment of the of use of steviol glycosides produced by fermentation \(Rebaudioside M\) using Saccharomyces cerevisiae,](#)

[Safety Assessment RP1190 2-Hydroxyethyl Methacrylate Phosphate,](#)

[Assessment of Wax, Rice Bran, Oxidized and Saponified as a Component of Plastic Materials and Articles Intended to Come Into Contact With Food.](#)

NLCS requests

17. The Nutrition, Labelling, Composition and Standards Group, a four country risk management group providing a framework for DHSC-led legislation, requested the Committee's advice on

Green tea catechins

18. Following the publication of the statement on green tea catechins – the information was shared with NLCS colleagues who are currently considering all the evidence to develop risk management advice.

Other

19. The COT discussed and advised on a recent assessment by the FCMJEG on environmental plastic and ocean bound plastic meant for use in food contact materials. The information and final assessment have been shared with the policy team, who have developed risk management advice. The final FSA/FSS communications package will be published alongside the final assessment in the first quarter of 2025.

20. FSA funded a literature review on [New Approach Methodologies \(NAMs\) to Support Regulatory Decisions for Chemical Safety](#) is now published.

21. The objectives of the report were: to collate, review and categorise the most up-to-date scientific literature for the UK's own evaluation of NAMs in the field of chemical risk assessment; to assess the regulatory readiness of NAMs and the degree to which these technologies have been successfully integrated into regulatory frameworks; to gather and summarise expert opinions (including global stakeholder interviews) on the gaps that hinder the further adoption of New Approach Methodologies (NAMs) in the regulatory process.

Sub-statement on the potential risk(s) from exposure to microplastics: Inhalation route

22. The COT published [the sub-statement on the inhalation of microplastics](#). This provides a high-level overview of the current state of knowledge, data gaps and research requirements with regards to this topic.

COT workshop

Gut reactions: xenobiotics and the microbiome workshop

23. The COT held a workshop in October 2024 in London, United Kingdom on xenobiotics and the microbiome. The workshop included themed sessions consisting of short flash presentations followed by roundtable discussions. There was attendance from multiple stakeholders including academia, government and industry.

24. The workshop set out to explore the complex current state of the science of the microbiome pathophysiology and the possible impact of xenobiotics on host-microbiome interactions and vice versa, including possible mechanisms and health implications, with a particular emphasis on the gut microbiome and dietary exposure.

25. This will enable new insights, review the science, initiate discussions to determine where the data gaps are in research, what effects are of concern, and how might xenobiotics be evaluated practically for such effects in the future.

26. The four sessions were: Interactions of the host microbiome system; Gut microbiome and xenobiotics; Assessing the impact on the microbiome; Possible ways to evaluate in the short to medium term and microbiome interventions for maintaining health and treating disease and Future Directions.

27. The finalised report will be published in due course.

Working Groups and Subgroups

Joint SACN-COT Working Group on plant-based drinks

28. The COT statement from 2021 is feeding into the work of the joint COT - Scientific Advisory Committee on Nutrition (SACN) Working Group (WG) on plant-based drinks. The WG has undertaken a BRAFO analysis of three plant drinks compared to cows' milk. The Committee commented on the draft WG report prior to a peer review consultation period in summer 2025.

Cannabidiol (CBD)

29. A joint WG of COT and the Advisory Committee on Novel Foods and Processes (ACNFP) are reviewing the data obtained from novel food authorisation applications for cannabidiol (CBD). The evaluation of this data led to an ADI of 0.15 mg/kg bw/day (equivalent to 10 mg/day in a 70kg adult) being established in 2023.

BTS and publications

30. Posters presenting the COT's work on novel formulations of turmeric supplements, chitosan, microplastics were presented at the BTS Annual Congress in April 2024.

31. The COT published the [COT Evolving our Assessment and Future Guiding Principles Workshop Report 2023](#).

32. The following COT Workshop Reports were published: "[Exploring Dose Response](#)" and "[Physiologically Based Pharmacokinetic Modelling \(PBPK\) for Regulators](#)" and "[UK FSA COT Paving the way for a UK Roadmap – Development, Validation, and Acceptance of New Approach Methodologies](#)." These workshop report findings were published in a peer review Journal (Toxicology Research) entitled: "[The new normal chemical landscape: the future of risk assessment toward optimum consumer safety](#)".

33. The FSA and COT Roadmap for New Approach Methodologies was accepted as a peer reviewed publication in Regulatory Toxicology and Pharmacology entitled: "[Food for thought- Paving the way for a UK Roadmap towards optimum consumer safety: Development, Endorsement and Regulatory Acceptance of New Approach Methodologies \(NAMs\) in Chemical Risk Assessment and Beyond](#)".

EFSA and other public consultations

34. The COT have not submitted comments to any EFSA public consultations this year.

Secretariat
January 2025