

Chemicals Strategy for Sustainability

The European Green Deal policy - the ambitious growth plan for the future - presented by the Commission in December last year, is in the broader public mainly associated with the Climate Law, the commitment to have no net emissions of greenhouse gases by 2050 and the Circular Economy Action Plan, introducing circularity in our production and consumption patterns, with included the measures on plastics.

There is however more!

The 14th October the Commission presented its "Chemicals Strategy for Sustainability. Towards a toxic-free environment."

https://ec.europa.eu/environment/strategy/chemicals-strategy_en

<https://ec.europa.eu/environment/pdf/chemicals/2020/10/Strategy.pdf>

The key actions listed in this document (see below) are well indicating this strategy will also influence our food safety agenda in the coming years.

- . Banning the most harmful chemicals in consumer products - allowing their use only where essential.
- . Account for the cocktail effect of chemicals when assessing risks from chemicals.
- . Phase out per- and polyfluoroalkyl substances (PFAS) in the EU, unless their use is essential.
- . Boost the investment and innovative capacity for production and use of chemicals that are safe and sustainable by design throughout their life cycle.
- . Promote EU's resilience of supply and sustainability of critical chemicals.
- . Establish a simpler one substance one assessment process for the risk and hazard assessment of chemicals.
- . Play a leading role globally by championing and promoting high standards and not exporting chemicals banned in the EU.

Reading through the document, our sector will need to consider, an even stricter monitoring of certain categories of substances (Substances of very high concern, CMR, Endocrine disrupting chemicals, PBT substances Persistent Bio-accumulative and Toxic to the environment,...) and the concerns related to mixtures. Different policy areas will also be ever more interlinked. The Commission will for instance introduce requirements towards non-toxic material cycles. Information requirements may be introduced in REACH on the overall environmental footprint of chemicals ...

Council of Europe

The Resolution CM/Res(2020)9 on the safety and quality of materials and articles for contact with food, has been adopted by the Committee of Ministers on 7th October .

<https://www.edqm.eu/en/news/new-council-europe-resolution-strengthen-safety-food-contact-materials>

In different detailed update mails over the last year, we have been reporting on the work progress at the Council of Europe. As indicated, this large European platform has been and is developing food safety guidance, to be considered as soft law. This means the provisions are not directly applicable if they are not introduced in national legislation. Nevertheless, the provided guidance in the Resolutions and Technical Guides is for the food safety authorities a reference for assessing compliance with Article 3 of the Food Contact Framework Regulation EC No 1935/2004.

The adopted text - now also present on the Council of Europe website - is in a general way, indicating which substances can be used in food contact materials and articles:

- Substances approved by competent authorities of Council of Europe Member States.
- Use is compliant with material specific provisions (EU, national or official recommendations)



- Absence of release, including impurities, reaction and/or degradation products. (limit 0,01 mg/kg)
This limit is not applicable for substances in nano-form, CMR, substances assessed as genotoxic or predicted to be genotoxic using QSAR models.
For those categories a specific risk assessment must be performed.
- Substances risk-assessed by or on behalf of the responsible business operator in accordance with internationally recognised principles.

The section on the declaration of compliance present in the final version of the Resolution, is strengthening the downstream user position.

“Food contact materials and articles under the scope of the resolution are to be accompanied by a declaration of compliance”. A DOC needs to be issued at all stages of the supply chain and means that the manufacturer of the food contact material or article assumes responsibility for the suitability for food contact, including the safety of all released substances, unless he has informed the next business operator in the supply chain further specified compliance work needs to be performed.

Very valuable are the further provided details on what needs to be included in the DOC.

On NIAS: “The FCM manufacturer (upstream, our suppliers) have to make available information on the substances used, impurities and reaction and degradation products, including those known or foreseen to be generated at later production stages, for which the business operator has identified that further compliance work needs to be conducted at the next stages in the supply chain.”

Early next year the Council of Europe will publish two Technical Guides, one on paper and board and a second on an even more detailed guidance regarding the required compliance documentation.

OECD publication on PFAS

PFAS and alternatives in food packaging (paper and paperboard): report on the commercial availability and current uses.

<https://www.oecd.org/chemicalsafety/portal-perfluorinated-chemicals/PFASs-and-alternatives-in-food-packaging-paper-and-paperboard.pdf>

This report gives an overview of the available physical and chemical alternatives, their efficacy, uptake and market penetration.

Within the category of the cellulose-based physical alternatives the following materials are covered in the report: Intensive refining of wood pulp leading to Natural greaseproof paper (NGP) and Vegetable parchment, Microfibrillar cellulose (MFC), Cellulose nanofibrils (CNFs) and Cellulose nanocrystals (CNCs). Other physical barriers can obviously be introduced by an extra plastic or aluminium layer.

TopScreen™ barrier products, Silicone coatings, Aqueous dispersions of copolymers or waxes, Starch, Clay, Stone, Chitosan or water-soluble hydroxyethyl cellulose (HEC), are mentioned as chemical alternative coatings.

Some of those physical and chemical alternatives or combinations are performing very well. The cost increase seems to be the main obstacle. Switching to a chemical alternative or a physical alternative is indicatively leading to a cost increase of respectively 11% and 32% compared to PFAS paper.

In the report is stated how a separate project will look into the hazard profile of the identified alternatives. The publication provides in Annex 2, an overview of the current regulation on PFAS and alternatives in paper and board food packaging in the OECD.

The report mentions, 12 and 28 PFAS substances are respectively listed at the BfR and FDA. Banning all PFAS requires clarity on the safety of the alternatives and also an evaluation of their recyclability.

At the BfR, for natural greaseproof paper a certificate of conformity is required, TopScreen™ formulations are permitted and silicone is listed as a coating agent.

More short update topics

- The possibility for the Member States to introduce comments and detailed opinions regarding the German Mineral Oil Regulation is ending the 18/11. (See detailed updates 18/08, 30/09 and Quarterly Update 2020 Q3) Any further news on the developed comments at national level would be appreciated.
- CEPI circulated for consultation a first version of a Harmonised European Test Method for Recyclability



Assessments. (Available on demand)

ECMA was consulted via CITPA and the EPRC (European Paper Recycling Council).

For assessing the recyclability of paper and board articles, ECMA continued to argue in favour of more parameters aside the coarse reject (non-paper fraction), the flake content (fibres not well dissolved sticking together at the pulping stage), the stickies (coming from adhesives) and the visual appearance of the recycled pulp (dirt particles from inks).

Instead of just looking for the negative coarse-reject the test method may assess the obtained positive fibre yield and the mechanical properties of the obtained fibres.

Recycling into graphic paper or into recycled grades for packaging, requires also different properties. The optical appearance will be of higher importance for graphic papers, while the mechanical characteristics are more critical for manufacturing recycled packaging.

- Over the last year the ECMA Food Safety Committee has also been discussing the topic of microplastics. At its September meeting, the assessment from the BfR at the Fresenius conference mid last year was once more shared. There are currently no proven health risks, but the topic is clearly present on the sustainability agenda.

A statement on inks in relation to microplastics is available from the EuPIA website.

https://www.eupia.org/fileadmin/user_upload/2019-11-06_EuPIA_Microplastics_Statement.pdf

The statement argues printing inks and varnishes are industrial mixtures and for this reason they are not in the scope of the current restriction proposals. Ink manufacturers are not releasing microplastics and there is also no transfer of microplastics from dry ink and varnish films into the environment.

Unclear how this topic may affect our sector in relation to for instance, the existing and newly developed coatings and their behaviour in the recycling processes.

- The 7th ILSI International symposium on food packaging which was scheduled for November this year is now further delayed to April/May 2022.

<https://ilsi.eu/event/7th-international-symposium-on-food-packaging-scientific-developments-supporting-safety-and-innovation/>

10th November 2020

