

FLUOROPOLYMERS AND THE OECD POLYMER OF LOW CONCERN (PLC) CRITERIA.

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Fluoropolymers Product Group

Suivre

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This special edition of the monthly newsletter will focus on the OECD Polymer of Low Concern (PLC) criteria and their implications for the fluoropolymers industry.

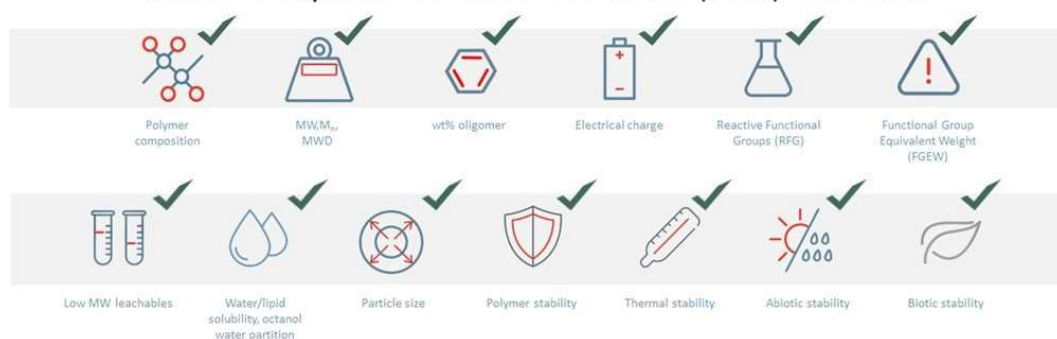
The Fluoropolymers Product Group (FPG) members are committed to substantiating the safety of human health and the environment of its products during their intended use phase. In light of this, FPG members participated in the development of an in-depth assessment of its commercially available products against the 13 internationally recognized OECD PLC criteria, looking specifically at the use phase of the life cycle and potential threats to human or environmental health during the intended use phase.

The outcome of this effort as well as earlier research have demonstrated that approximately 96% of the global commercial fluoropolymer market meets or exceeds the OECD criteria. Fluoropolymers have been shown to be chemically and biologically stable, non-bio accumulative, non-bioavailable and non-toxic during their intended use phase.

The study highlights the unique physical, chemical, environmental, and toxicological properties which differentiate fluoropolymers from other PFAS, providing further evidence that PFAS should not be

grouped together as one for the purpose of regulation.

OECD Polymer of Low Concern (PLC) Criteria



WHY USING THE OECD PLC CRITERIA TO IDENTIFY LOW-RISK POLYMERS?

Polymers of Low Concern (PLC) criteria have been discussed and elaborated globally to ensure international consistency, with discussions at the OECD level dating back to 1993.

The PLC criteria were created to facilitate polymer hazard assessment that identifies low-risk polymers and in turn assist in prioritizing regulatory activity on high-risk substances. Since being developed, the definition of PLC criteria by the OECD has enabled the identification of chemical, physical, and biological properties predictive of health and environmental effects which are of low concern.

The science developed over 30 years ago, behind the use of structure-activity relationships and predictive modelling, is still valid today independent of their OECD, US, or European origin.

As such, the Fluoropolymer Product Group believes these methodologies should be retained because of their tried and tested scientific merit.



SAFETY OF FLUOROPOLYMERS FOR THE ENVIRONMENT AND HUMAN HEALTH

An important takeaway from the PLC study is that persistence is not always a hazard, and persistence does not equate to toxicity, bioaccumulation or mobility within the environment or human body.

The study demonstrates the insignificant risk fluoropolymers have on human health or the environment during the intended use phase, according to internationally recognized criteria.

As a matter of fact, fluoropolymers do not break down into potentially harmful chemicals once released into the environment, and their durability presents strong benefits in terms of consistency and safety. Their unmatched durability means they do not need to be replaced as much as their alternatives, which implies less chemical waste and in turn safety for the environment and human health.

This durability also translates into a contribution to the circular economy, as fluoropolymers play an important role in extending the lifespan of a range of products.

Therefore, fluoropolymers are an indispensable driver of the European Green Deal, exhibiting a unique combination of properties within various components in renewable energy installations and low-emissions transport technologies. They are helping drive the shift towards renewable energy, build more efficient industries across Europe and enable lower-emission transport.



OUR VIEW OF THE REGULATORY IMPLICATIONS OF FLUOROPOLYMERS TO BE PLC

The conclusions of our PLC study also provide further evidence that PFAS should not be grouped together as one for the purpose of regulation.

Although fluoropolymers can be considered PFAS due to their structural makeup, they have unique physical, chemical, environmental, and toxicological properties which differentiate them from other PFAS.

In fact, the authors of the study "advocate for a segmentation based on properties before performing any grouping-based risk assessment, placing stable, non-hazardous fluoropolymers, that meet the criteria to be considered polymers on low concern, in a separate category."



We hope you enjoyed this edition of the newsletter. Do not hesitate to reach out to us for any questions or if you would like to see one of your projects featured as a case study in any upcoming newsletter editions. We believe that the voice of our industry stakeholders should be heard.

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