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BSEF response to EEB call for grouping of all brominated flame retardants and their inclusion on the REACH list of SVHCs

BSEF categorically rejects the facile suggestion of the European Environmental Bureau (EEB) that all brominated flame retardants be listed as Substances of Very High Concern (SVHC). The suggestion has no regulatory basis and lacks any credible science to support it.

About Brominated Flame Retardants

Brominated Flame Retardants (BFRs) play a key role in meeting fire safety requirements and protecting consumers. The term “flame retardant” refers to a function and not to a specific family of chemicals¹. This function of flame retardancy is derived from elements such as bromine, phosphorus, nitrogen and some inorganics such as magnesium and aluminium. Bromine stands out in this group as it’s the most efficient in gas phase fire quenching reactions. Within the class of BFRs there are many different chemicals, with widely differing molecular structures, physicochemical, toxicological and ecotoxicological properties. It is precisely due to these differences that grouping of these substances for regulatory purposes should be approached with great caution, as further elaborated below.

EEB Call for Group Inclusion of Brominated Flame Retardants in REACH SVHC List

Recently the EEB issued an updated set of “tests” for improving EU chemical management processes with the objective of supporting substitution, protecting human health and the environment. “Test 8” called on ECHA (the European Chemicals Agency) to *“accelerate the substitution of SVHCs by asking the Commission to propose the inclusion of brominated flame retardants as a group for candidate listing”*.

The call for the substitution of SVHCs is not new. All stakeholders are well aware of the issues and industry has rapidly moved to eliminate these chemicals in commerce. In reality the speed of substitution is dictated by the availability of substitutes that are equivalent from an economic and technical point of view and, importantly, are not more hazardous or less sustainable.

The call for ECHA to request the Commission to propose the inclusion of BFRs as a group for candidate listing lacks merit. EEB suggests that all BFRs meet the criteria in Article 57 of REACH. This is not the case. Only a very few BFRs are restricted under REACH. Newer BFRs have very different properties from these substances and were designed to be safer and more sustainable solutions. This is well known to the Commission and ECHA. The EEB call, therefore, for a group listing of BFRs for inclusion in the REACH SVHC list isn’t justified nor is it advancing EU sustainability and safer product goals. Everyday we see more evidence of the economic need for the public fire hazard impact and the environmental human safety of this important class of chemicals.

¹ <https://www.flameretardantfacts.com/about-flame-retardants/not-all-flame-retardants-are-the-same/>



Grouping of Brominated Flame Retardants

In 2017, following a request from the US Consumer Products Safety Commission², the US National Academy of Sciences, Engineering, and Medicine (NASEM) undertook extensive work to examine whether or not it would be possible to group all halogenated flame retardants as a single class for regulatory purposes. In 2019, NASEM released a report which stated that Additive, Non-polymeric, Organohalogen Flame Retardants (ANOFRs) “cannot be treated as a single class for the purposes of a hazard assessment”.

NASEM, instead, recommended grouping ANOFRs into 14 subclasses, based on chemical structure, physicochemical properties, and predicted biologic activity, for purposes of further regulatory assessment.

Key differences between ANOFRs are highlighted within assessments conducted by regulatory agencies around the world including U.S. EPA, Environment and Climate Change Canada, Health Canada, the European Chemicals Bureau, and the European Food Safety Authority as well as CPSC’s own technical work.

The American Chemistry Council’s (ACC) North American Flame Retardant Alliance (NAFRA) commented that *‘the findings that organohalogen flame retardants (OFRs) cannot be assessed as a single class confirms what scientists, regulators, and other authoritative bodies have already determined: it is not scientifically accurate or appropriate to make broad conclusions or impose a one-size-fits-all regulatory approach for OFRs. The findings also track with past reviews conducted by the Academy, which focused on using chemical specific data to evaluate OFRs.’*

Similarly, in Europe, [Cefic](#) (The European Chemical Council) state that ‘grouping’, when appropriate, should consider risk and hazard profiles in addition to structural similarity and the Identification of substances in a group should be based on a unique substance ID to facilitate digitalisation.³

BSEF is fully aligned with the ACC and CEFIC positions on “grouping” as set out above. There are significant differences within this family: larger molecules such as oligomeric or polymeric FRs, chemically reactive FRs which do not exist as a molecule and many other FRs which possess no toxicological or ecotoxicological classifications under CLH. The suggestion that such a diverse group of substances should be all considered SVHCs (in the context of REACH) and then listed in its entirety for regulatory restriction simply due to the presence of bromine in the molecule is devoid of any scientific merit.

In summary, BSEF maintains that a clear legal and scientific basis is needed in any approach to grouping of chemicals for regulatory purposes. Chemical regulation should always be based on sound science – not opinions. BSEF strongly refutes the suggestion by the EEB that ECHA should add BFRs to their prospective work plan with respect to restriction of substances including groups of similar chemicals.

² National Academies of Sciences, Engineering, and Medicine. 2019. A Class Approach to Hazard Assessment of Organohalogen Flame Retardants. Washington, DC: The National Academies Press. <https://doi.org/10.17226/25412>.

³ <https://cefic.org/app/uploads/2021/06/Cefic-views-on-grouping-of-substances.pdf>



The International
Bromine Council

About BSEF

BSEF – the International Bromine Council, is the global representative body for bromine producers and producers of bromine technologies. Originally founded in 1997, BSEF works to foster knowledge on the societal benefits of bromine and its applications. The members of BSEF are Albemarle Corporation, ICL Industrial Products, Lanxess and Tosoh.

Visit www.bsef.org to learn more and follow BSEF on Twitter **@BromineInfo** for the latest news and information.

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