

## ECHA proposes a restriction on decaBDE, a brominated flame retardant used in plastics and textiles <sup>1</sup>

### SUMMARY

The European Chemicals Agency (ECHA) has, at the request of the European Commission, submitted a report proposing a restriction on the manufacturing, use and placing on the market of bis(pentabromophenyl) ether (decaBDE), and on articles containing decaBDE in concentrations greater than 0.1% by weight. ECHA has collaborated with the Norwegian Environment Agency throughout the drafting of the restriction proposal.

DecaBDE is persistent, bioaccumulative and toxic (PBT) and also very persistent and very bioaccumulative (vPvB) because it transforms to substances with these properties in the environment. It was added to the Candidate List for authorisation in December 2012. PBT/vPvB substances give rise to specific concerns based on their potential to accumulate in the environment and cause effects that are unpredictable in the long-term and are difficult to reverse, even when emissions cease. Information from environmental monitoring shows that decaBDE occurs widely in the environment and in wildlife. In addition to PBT/vPvB concerns, exposure to decaBDE and lower brominated transformation products may result in neurotoxic effects in mammals, including humans.

DecaBDE is used as an additive flame retardant in plastic and textile articles. More specifically, it is used in domestic and commercial furniture and in the transport, construction and mining sector. The restriction proposal contains derogations for the second hand market, for electrical and electronic equipment within the scope of the RoHS Directive and for the aviation sector. The main cost elements of the proposed restriction for society, identified in the proposal, relate to the costs of substitution with other chemical substances.

ECHA launches the public consultation on this proposed restriction today, which will end on 17 March 2015. However, the rapporteurs of ECHA's Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) would welcome any early comments, by 17 November 2014, to assist them in the first discussions of the restriction proposal.

### GENERAL REMARKS

The Annex XV restriction report, prepared by ECHA, has been published on ECHA's website. A public consultation on the proposed restriction is open for a period of six months<sup>2</sup> to allow stakeholders<sup>3</sup> to submit comments or additional information relevant to the proposal. Specific questions on certain aspects of the proposed restriction (e.g. use in adhesives, sealants, coatings and inks and information on recycling) have also been posed. Comments are invited from stakeholders from both the EU and the rest of the world.

An additional, 60 day, public consultation will be held at a later stage of Committee opinion making on the draft SEAC opinion.

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<sup>1</sup> The information note has been prepared based on the Annex XV report prepared by ECHA.

<sup>2</sup> The duration of the public consultation is six months according to Article 69(6) of REACH.

<sup>3</sup> Those most likely to be interested are companies, organisations representing industry or civil society, individual citizens, as well as public authorities.

## PUBLIC CONSULTATION

The opinions of RAC and SEAC will take into account the comments received in the public consultation. ECHA will reply to these comments and publish the responses, together with the comments of the Committees and Rapporteurs, on its website.

It should also be understood that where derogations have been proposed by the Dossier Submitter, which have been fully assessed in the Annex XV dossier, they are within the scope of the proposal and will be assessed by RAC and SEAC. Therefore such derogations could potentially be withdrawn, if not sufficiently justified and so it is advised that respondents affected by such derogations give information to either justify the derogation or to withdraw it.

## SUGGESTED RESTRICTION (SCOPE)

ECHA has, on the request of the European Commission, submitted a report proposing a restriction on the manufacturing, use and placing on the market of decaBDE:

- as a substance,
- as a constituent of other substances, or in mixtures, if the concentration is equal or greater than 0.1 % by weight

Articles containing decaBDE in concentrations greater than 0.1% by weight are also proposed to be restricted. However, derogations are suggested for articles on the second hand market, for electrical and electronic equipment within the scope of Directive 2011/65EU (RoHS Directive) and for articles used in the aviation sector.

A transitional period of 18 months after the date of entry into force is proposed for this restriction.

## DECABDE IN PLASTICS AND TEXTILES

DecaBDE is used in the EU as an additive flame retardant in plastic and textile articles. These articles are used in the transport (automotive, aviation and marine), building/construction and mining sectors. Uses within these sectors include interiors and upholstery (carpets, seating and plastic components), roofing, insulation, piping/ducting/hoses and cables. DecaBDE is also used in the EU in domestic and commercial furnishings and fittings, e.g. in draperies and furniture (in foams, fillings and backcoats). The percentage of total decaBDE used in the EU in plastics (as opposed to textiles) is estimated at 48%. Uses in adhesives/sealants, coatings and inks, have also been reported.

DecaBDE has not been manufactured in the EU since 1999. Latest information suggests that the imported tonnage of decaBDE into the EU is declining. For the emission and cost calculations in the restriction report, imports of 4,000 tonnes/year have been used (excluding decaBDE contained in imported articles).

The Annex XV report is also based on information on uses, emissions and alternatives, collated on behalf of ECHA by a consultant, whose final report is available in the DecaBDE entry here:

<http://echa.europa.eu/addressing-chemicals-of-concern/restriction/echas-activities-on-restrictions/european-commissions-requests-completed-assignments>

## REASONS FOR ACTION

## PUBLIC CONSULTATION

The primary reason to act on a Union-wide basis is to effectively reduce the environmental exposure to decaBDE in the EU. DecaBDE is a PBT/vPvB substance (also known to undergo long-range transport) and it was added to the Candidate List for authorisation in December 2012. In May 2013, Norway has submitted a proposal to add decaBDE to the Stockholm Convention for Persistent Organic Pollutants. Subsequently, the European Commission has asked ECHA to prepare an Annex XV restriction proposal on this substance.

PBT/vPvB substances give rise to specific concerns based on their potential to accumulate in the environment and cause effects that are unpredictable in the long-term and are difficult to reverse, even when emissions cease. Information from environmental monitoring shows that decaBDE occurs widely in environment and in wildlife. In addition, exposure to decaBDE and lower brominated substances that are formed as it degrades in the environment may result in neurotoxicity in mammals, including humans. Exposure of decaBDE in humans (including prenatal exposure) and the environment is widespread and this creates a high potential for long-term (lifetime) exposure to both decaBDE and its lower brominated PBDE (Polybrominated diphenyl ether) transformation products.

Based on the analysis presented in the Annex XV report, it is concluded that a restriction is the most appropriate Union-wide measure.

## CONSEQUENCES OF THE ACTION

The proposed restriction will remove all emissions and related exposures of decaBDE to both humans and the environment in the EU (except any emissions resulting from derogated uses). Reduced emissions are used as a proxy for risk reduction.

The costs of the proposed restriction are estimated to €2.2 million per year. The calculation was made assuming that the entire consumption of decaBDE will be replaced by ethane-1,2-bis(pentabromophenyl) (EBP), a drop-in alternative which during consultation with stakeholders was suggested as the most suitable to replace decaBDE. It has to be noted that (EBP), is currently undergoing Substance Evaluation under REACH based on a concern that it may exhibit PBT/vPvB properties.

## SPECIFIC INFORMATION REQUESTED

A few specific elements have been addressed in the Public Consultation in order to gather relevant information, if available, from stakeholders:

- Information on uses of decaBDE in adhesives, sealants, inks and coatings. Since no derogation is proposed for these uses, these are included in the scope of the proposed restriction. Although the above uses have been reported as identified uses in registrations, very limited information was collected during the stakeholder consultation that took place during the drafting of the restriction proposal. Relevant information could include, amounts currently used, estimated emissions, and technically and economically feasible alternatives.
- Information on how recyclers (especially of plastic materials) could potentially be affected by the proposed restriction. In order to enhance the enforceability of the restriction, a concentration limit of 0.1% w/w is proposed, to be applied also to recycled articles. This is in line with previous restrictions on brominated flame retardants (RoHS Directive, REACH Annex XVII) and the proposal assumes that this limit should not impair recycling activities.
- Information on potential additional costs of the proposed restriction, which are not included in the calculations of substitution costs with EBP.

**COMMENTS PREFERABLY BY 17 NOVEMBER**

The opinion forming process of the ECHA Committees for Risk Assessment (RAC) and Socio-economic Analysis (SEAC) starts with a public consultation on 17 September 2014. Interested parties can comment on the proposed restriction report using the ECHA website. Although the public consultation concludes on 17 March 2015, the rapporteurs of RAC and SEAC would appreciate receiving comments by 17 November 2014 to assist them in the detailed discussion of the restriction proposal in late November 2014.

The final opinions of both Committees are scheduled to be available by September 2015. ECHA will send these two opinions to the European Commission, which will take the decision whether to include the proposed restriction in the Annex XVII of the REACH Regulation.