8 August 2025

Statement on the proposed identification of DBDPE as a SVHC

1. General introduction and relevance to industry

Textil+mode, the German Confederation of the Textile and Fashion industry, represents the interests of companies active across the German textile value chain, including manufacturers of high-performance technical textiles. Several of our member companies rely on the flame retardant **1,1'-(ethane-1,2-diyl)bis[pentabromobenzene] (decabromodiphenylethane, DBDPE)** for specific textile applications where stringent fire safety standards must be met, for example in public transport, construction textiles, aviation, or defence-related sectors. We strongly support the objectives of REACH and the identification of substances of very high concern (SVHC) where scientifically justified. However, based on the available data, the regulatory history of DBDPE, and its actual use profile in the textile sector**, we do not consider DBDPE to meet the criteria for identification as a SVHC** under Article 57(e) of REACH.

2. Use cases and tonnage in the textile sector

As of June 2025, a total of 11 textile companies in Germany reported active and regular use of DBDPE in technically demanding applications. The reported annual quantities range from under 1 tonne to over 300 tonnes, with multiple companies in the two-digit tonne range. Based on this data, the total annual volume used by the sector exceeds 600 tonnes, with Germany likely representing a leading user of DBDPE in textile applications within the EU. The use cases are highly application-specific and predominantly relate to products that must meet legal fire safety standards in regulated environments:

- **Interior sun protection systems** (e.g. coated or foamed PES fabrics used in public buildings, offices, schools)
- **Upholstery fabrics** in public transport (trains, buses, aircraft)
- **Ship interiors, exhibition constructions, and commercial interior textiles** (e.g. upholstery and drapes in hotels or public buildings)
- **Digitally printed flame-retardant banners** (e.g. frontlit/backlit signage for exhibitions and public events)
- **Technical and military textiles** (e.g. tents, covers, battery protection)
- **Protective clothing and technical PPE fabrics**
- **Air cargo fire covers** (certified materials for Airbus/Boeing)

Fire safety requirements in these applications are extremely strict and vary by regulatory context, often exceeding the legal minimum. Compliance is mandatory with national and international standards such as **DIN 4102** (B1/B2) in Germany, **EN 13501** (Euroclass) across the EU, **NF P 92-503 to -507** (M1) in France, **ECE R118** for vehicle interiors, and the **IMO FTP Code** in marine applications. These standards define flame propagation, afterburn, droplet formation, and heat release, and are often required in parallel.

According to the companies consulted, no technically and economically viable flame-retardant alternatives are currently available that can achieve this level of performance across all parameters in the relevant polymer systems. No such alternatives have been proposed or identified in the Annex XV dossier either, which supports the view that DBDPE remains essential for compliance in high-performance textile applications. Our members report that DBDPE is typically applied in a polymer-bound coating, not in the fibre itself. This strongly limits any environmental release and ensures the required fire performance across the entire service life of the product. The use of DBDPE is therefore not only limited to

essential cases, but also critical for compliance with national and international safety regulations.

3. Objections to the proposed SVHC classification based on the scientific assessment of DBDPE as vPvB

We do not agree with the conclusion that DBDPE meets the criteria for identification as a substance that is very persistent and very bioaccumulative (vPvB) under REACH Annex XIII. Even if DBDPE were to be considered very persistent, the available data do not support the conclusion that the substance also meets the criteria as very bioaccumulative (vB).

The read-across from DecaBDE (bis(pentabromophenyl) ether) is not scientifically justified, as DBDPE and DecaBDE differ significantly in chemical structure. DBDPE contains an ethane bridge instead of the ether linkage characteristic of DecaBDE, which influences environmental fate and bioavailability. Furthermore, experimental data on DBDPE itself do not support the assumption of comparable bioaccumulation potential. In our view, the current use of read-across contradicts ECHA's own guidance on substance similarity and data reliability, and results in an unfounded hazard profile for DBDPE (see Annex XV dossier, p. 179 ff.).

In addition, the Annex XV dossier relies heavily on QSAR predictions and a limited number of fish studies, many of which are affected by methodological limitations and considerable uncertainty. The available BCF studies for DBDPE in fish are considered unreliable or of limited relevance by the dossier itself (p. 183 ff.) and are therefore given low weight in the overall assessment. None of these studies report BCF values exceeding the vB threshold of 5000 L/kg, as defined in Annex XIII.

This conclusion appears methodologically inconsistent and is difficult to reconcile with earlier regulatory discussions on DBDPE, including informal exchanges between ECHA and industry stakeholders in 2024, where similar limitations in the evidence base were acknowledged and no consensus on vPvB classification was reached.

No new high-quality bioaccumulation studies have been generated in recent years that would justify a re-evaluation of DBDPE as vB. The evidence base remains essentially unchanged. **We therefore conclude that the available data are not sufficient to classify DBDPE as very bioaccumulative.** We suggest that ECHA re-evaluate the weight-of-evidence, taking into account the limitations of the existing studies, real-world use conditions, and the actual environmental relevance of the exposure pathways assumed in the dossier.

4. Exposure and real-world emissions

The use of DBDPE in the textile industry is characterised by negligible emissions during production, application, and use. DBDPE is applied as part of a polymer-bound coating formulation. It is not handled as a free solid powder and not applied by spraying.

Once applied, the substance is embedded in a solid, crosslinked polymer matrix, making it non-volatile, non-mobile and effectively immobile under typical service conditions. This includes both indoor and outdoor use, exposure to UV light, and typical cleaning processes.

Furthermore, the main application areas, such as building interiors, vehicle seating, or air cargo covers, are controlled environments with minimal potential for environmental exposure. At end-of-life, the substance remains bound in the polymer matrix and is typically disposed of via industrial incineration under regulated conditions. Due to its high thermal stability and the closed nature of European waste treatment systems, no relevant emissions are expected from this route either.

The current Annex XV dossier (2025) does not adequately reflect the specific use conditions and real-world exposure pathways relevant for textile applications. In particular, no realistic release modelling is provided.

We therefore believe that actual environmental exposure to DBDPE from textile use is extremely limited. This should be taken into account when interpreting bioaccumulation data and drawing regulatory conclusions.

5. Conclusion

We do not support identifying DBDPE as a substance of very high concern (SVHC).
There are currently no viable alternatives for critical flame-retardant applications, especially in areas where fire protection is legally required and where product performance and safety must be guaranteed. This applies in particular to strategic uses such as shelters and cargo covers, which are recognised under the EU's ReArm Europe Plan and the Defence Readiness Omnibus. The European Commission has acknowledged this challenge and proposed regulatory flexibilities, including simplified REACH exemptions for defence applications.

In addition, we do not consider the available evidence sufficient to conclude that DBDPE fulfils the vPvB criteria under Article 57(e) of REACH. In particular, the dossier does not adequately reflect the real-world use conditions in textile applications, which result in negligible environmental exposure.

We therefore urge ECHA and the Member State Committee to refrain from including DBDPE on the Candidate List. Such a listing would not be scientifically justified and would have disproportionate consequences for key applications that currently cannot be maintained without DBDPE.

The confederation textil+mode is the umbrella organization for the German textile, clothing, footwear, and leather goods industry (fashion industry). With 1,400 companies, mainly SMEs, and around 124,000 employees, the textile and fashion industry is Germany's second-largest consumer goods industry after the food industry. German textile and fashion manufacturers generate annual sales of around €34 billion. German textile manufacturers are important suppliers to industries such as automotive and medical products, while German fashion manufacturers are global trendsetters. Overall, the German textile and fashion industry stands for innovation, quality, and sustainability.

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