

**Substance name: Hexabromocyclododecane (HBCDD)
and all major diastereoisomers identified**

EC number: 247-148-4 and 221-695-9

CAS number: 25637-99-4 and 3194-55-6

Names of the major diastereoisomers identified:

alpha-hexabromocyclododecane	CAS No 134237-50-6
beta-hexabromocyclododecane	CAS No 134237-51-7
gamma-hexabromocyclododecane	CAS No 134237-52-8

**JUSTIFICATION FOR THE DRAFT
RECOMMANDATION OF INCLUSION IN ANNEX XIV**

14 January 2009

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1. Identity of the substance

Substance name:	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (alpha-, beta- and gamma-hexabromocyclododecane)
IUPAC name:	Hexabromocyclododecane
Chemical names:	Hexabromocyclododecane and 1,2,5,6,9,10-hexabromocyclododecane
EC numbers:	247-148-4 and 221-695-9
CAS numbers:	Hexabromocyclododecane: 25637-99-4 and 3194-55-6 , major diastereoisomers: alpha-: 134237-50-6 beta-: 134237-51-7 gamma-: 134237-52-8

2. Intrinsic properties of the substance

HBCDD was identified as a Substance of Very High Concern (SVHC) according to Article 57(d) as a PBT substance and included in the candidate list for authorisation by the ECHA's decision ED/67/2008 on 28 October 2008, after agreement of the Member State Committee.

Possible route for authorisation:

The substance meets the criteria in Article 57(d) and an authorisation may only be granted in accordance with Article 60(4) ('socio-economic route').

3. Proposed transitional arrangements

Proposal:

- *Latest application date:*
27 months after the entry into force of the Decision to include the substance in Annex XIV
- *Sunset date:*
45 months after the entry into force of the Decision to include the substance in Annex XIV

Justification:

Complexity of the supply chain:

According to the available information, HBCDD is manufactured at 1 site in EU and, in addition to that, imported in similar volumes.

HBCDD is used as flame retardant in different applications. According to the available information the main use is in styrene-based polymers, which are further transformed into different end products (mainly insulation boards, packaging materials, electronic/electric devices). HBCDD is also used in textiles (mainly for interior and automobile applications).

After manufacturing/import, HBCDD is either further processed (micronisation) when aimed for textile applications and/or formulated in styrene-based polymers or textile coating preparations; these intermediate steps seem to take place at a rather limited number of sites in EU (ca. 50).

Then, the preparations containing HBCDD are integrated into end-products at a somewhat higher but still limited number of industrial sites.

Finally, according to the available information, there is a wide range of end products containing HBCDD, for both industrial, professional and consumer applications, which implies a very high number of users (1000s) representing different industry sectors and professional user groups.

In conclusion, according to the available information, different types of industries and activities involving a large number of actors may be affected by the possible authorisation requirement and may need to get involved directly or indirectly in the preparation of applications.

Hence, the available information justifies a longer period for preparing applications than the minima.

Availability of alternatives:

The available information indicates that fairly much work has already been done to identify and assess potential alternative substances, materials and techniques which would provide equal fire retardancy. Therefore, the available information on potential alternatives facilitates preparing an analysis of alternatives for uses for which actors wish to apply for.

On the other hand, especially where the potential alternatives are changing the key materials or even the technique rather than only replacing HBCDD by another substance in the same polymer, and/or require the use of different processes, will require consideration of different types of supply chains and impacts than those familiar to the potential applicants.

Consequently, the available information indicates that the preparation of the application, in particular the analysis of alternatives and socio-economic assessment, may require, for certain uses, more time. Hence, the available information justifies a somewhat longer period for preparing applications than the minima.

Conclusion:

The available information on the complexity of the supply chains and the availability and nature of alternatives provides reasons to propose a somewhat longer time for preparing applications.

4. Proposed review periods for certain uses

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5. Proposed exempted (categories of) uses

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