

BAN ON DECA-BDE

2401
2008

Brominated flame retardants:

- Brominated flame retardants is a generic term for a larger group of organic substances that have an impeding effect on the development of fire.
- There has been a particular focus on the substance groups called polybrominated diphenyl ethers (PBDE), which include penta-, octa- and deca-bromodiphenyl ethers (penta-, octa- and deca-BDE), polybrominated biphenyls (PBB), tetrabromobisphenol A (TBBPA) and hexabromocyclododecane (HBCD or HBCDD).
- Some of these substances are not readily degradable in the environment. They can accumulate in the food chain and have been found in living organisms and in breast milk.

The environmental authorities aim for a significant reduction in emissions of brominated flame retardants by 2010 at the latest.

Ban on decabromodiphenyl ether (deca-BDE)

From the 1st of April 2008, the Norwegian government will introduce a ban on decabromodiphenyl ether (deca-BDE). The ban includes deca-BDE as a substance, in preparations and in products such as cellular rubber, textiles and upholstery. Means of transport are exempted from the ban. A ban on deca-BDE in electrical and electronic products has been in place in Norway since the 1st of July 2006.



Cellular rubber used for insulation of tubing, and plastics in electronic equipment may contain brominated flame retardants. Photo: SFT



New Norwegian regulations

From the 1st of April 2008 it is forbidden to manufacture, import, export, sell and use decabromodiphenyl ether (deca-BDE) as a substance or in preparations containing 0.1 weight percent or more of this compound. It is also forbidden to manufacture, import, export and sell products or flame retardant parts of products that contain 0.1 weight percent or more deca-BDE.

Deca-BDE is regulated through the Product Regulations § 2-20 (Please see excerpt of the regulation text at the back of this sheet).

EE equipment

Since the 1st of July 2006, Norway has had a ban on deca-BDE in electrical and electronic equipment (EE equipment). This ban has been included in the Product Regulations § 3-17, § 3-18 and § 3-19 (Please see excerpt of the regulation text at the back of this sheet.)

According to an exemption in the RoHS Directive (2002/95/EC), deca-BDE can still be used in plastics. However, this exemption has not been included in Norwegian regulations. This means that the use of EE-plastics is forbidden in Norway.

Excerpt of the product regulation § 2-20

Changes in § 2-20 Brominated flame retardants shall read:

First paragraph new littera c) reads:

Name	CAS-number	Formula
Decabromodiphenyl ether	1163-19-5	C ₁₂ Br ₁₀ O

New paragraph four reads:

Exempted from this prohibition is the use of decabromodiphenyl ether in:

- a) vehicle which is approved according to the at all times existing Norwegian regulation relating to the Vehicle Construction Regulation of 4 October 1994 no. 918
- b) for crafts recorded in the Norwegian Civil Aircraft Register in accordance with the Act of 11 June 1993 No. 101 relating aviation
- c) vessels recorded in accordance with the Act of 24 June 1994 No. 39 relating to navigation or Norwegian International Ship Register in accordance with the Act of 12 June 1987 No. 48 relating to the Norwegian International Ship Register
- d) rolling material for use on railway, including tram, metro, subway, and similar means of transport intended to be used on track.

New paragraph five reads:

Decabromodiphenyl ether in electric and electronic equipment included in §3-17 of this regulation is prohibited by §3-18 of this regulation.

The regulation shall enter into force 1 April 2008.

Excerpt of the product regulation §3-17 and § 3-18

Section 3-17. Electrical and electronic equipment (EEE) – definitions and scope of application

For the purposes of sections 3-18 and 3-19, EEE means products that are to be used with a maximum voltage of 1000 volts alternating current or 1500 volts direct current and that belong to the following product categories:

- white goods and other household appliances
 - IT and telecommunications equipment
 - consumer appliances (brown goods)
 - lighting equipment and light sources
 - electrical and electronic instruments (excluding large-scale stationary industrial instruments)
 - toys and leisure and sports equipment
 - automatic points of sale and cash dispensers,
- and that are dependent on electrical currents or electromagnetic fields to function or are designed to generate, transmit, distribute and measure electrical currents and electromagnetic fields.

For the purposes of sections 3-18 and 3-19, a manufacturer means any person who conducts commercial imports or exports of EEE, or who under his own brand either manufactures or sells his own EEE or sells EEE manufactured by other suppliers.

Section 3-18. Electrical and electronic equipment (EEE) – requirements concerning the products

From 1 July 2006, the manufacture, import, export and sale of EEE that contains more than 0.01 percent cadmium by weight, 0.1 percent lead by weight, 0.1 percent mercury by weight, 0.1 percent hexavalent chromium by weight, 0.1 percent polybrominated biphenyls (PBB) by weight or 0.1 percent polybrominated diphenyl ethers (PBDE) by weight is prohibited. Certain areas of application as specified in Appendix V are exempt from this prohibition.

The prohibition does not apply to equipment produced or imported into the EEA territory before 1 July 2006 and spare parts for such equipment. The prohibition does not apply to military equipment. Military equipment means equipment that is produced specifically for military purposes.

Manufacturers of EEE are under the obligation to work so that the products are designed in a way that facilitates waste disposal and utilisation, especially re-use and recovery.

Norwegian Pollution Control

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