

Guidance Document

1. Introduction

Directive 2002/95/EC¹ (RoHS 1) on the restriction of the use of certain hazardous substances in electrical and electronic equipment (EEE) regulates the use of a number of hazardous substances in electrical and electronic equipment. The Commission launched the recast of RoHS in 2008. RoHS 2 (Directive 2011/65/EC)² was adopted in June 2011 and had to be transposed by the Member States by 2 January 2013 at the latest. Annex II of the Directive lists the substances which are restricted for use in EEE, as well as the maximum concentration value tolerated by weight in homogeneous materials. Six substances are currently restricted: lead, mercury, cadmium, hexavalent chromium polybrominated biphenyls (PBB) and polybrominated diphenyl ethers (PBDE). Four additional substances are listed that shall be restricted starting in 2019: bis(2-ethylhexyl) phthalate (DEHP), butyl benzyl phthalate (BBP), dibutyl phthalate (DBP) and diisobutyl phthalate (DIBP).

RoHS 2 sets the rules for amending the list of restricted substances in Article 6(1). The annex is to be reviewed periodically. According to article 6(1) it is possible for member states to submit a proposal for adding new substances to the list of restricted substances of the directive. Article 6(1) and 6(2) describe the criteria and requirements for proposals for restrictions respectively.

In 2014, the Danish Environmental Protection Agency (DEPA) performed a survey on brominated flame retardants (BFRs). On the basis of its results, the Danish Technical University (DTU Food) investigated possibilities of grouping BFRs. One of the groupings; the small linear and branched brominated alkyl alcohols, including 2,3-dibromo-1-propanol (2,3-DBPA) and 2,2-bis(bromomethyl)-1,3-propanediol (DBNPG) and 2,2-bis-(bromomethyl)-3-bromo-1-propanol (TBNPA), was chosen for further investigation and the grouping was extended to include also theoretical compounds. The category, defined as having 3-5 carbons, 2-3 bromine atoms and 1-2 alcohol groups, comprises 61 members. (Q)SAR predictions were performed for the members of the category. Predictions for carcinogenic and mutagenic/genotoxic properties indicated that the 61 members in the category of small linear and branched brominated alkyl alcohols have a carcinogenic potential with a possible mutagenic/genotoxic mode of action. Experimental data for a small number of the members of the group is available. The experimental data support the (Q)SAR prediction.

The Danish EPA has thus commissioned a project to collect, assess and present scientific data to support a proposal for restriction of small brominated alkyl alcohol in the RoHS Directive, if the data prove to be adequate. For this purpose, a stakeholder consultation is being held as a means of collecting further information and data as to the substances of interest and their relevance to the EEEE sector.

This consultation is run by Oeko-Institut e.V together with COWI AS on behalf of DEPA, with the purpose to collect stakeholder contributions, under <http://rohs.exemptions.oeko.info/index.php?id=273>. Please note that the role of Oeko-Institut and COWI is only to collect and evaluate the information

¹ OJ L 37, 13.2.2003.

² See: <http://eur-lex.europa.eu/LexUriServ/LexUriServ.do?uri=CELEX:32011L0065:EN:NOT>.

provided by stakeholders with a goal to provide DEPA with a recommendation on an exemption's justification. Any decision making, however, is the sole responsibility of DEPA.

Neither the fact that a stakeholder consultation is being launched, nor the results of this stakeholder consultation should be interpreted as a political or legal signal that DEPA intends to take a given action.

2. Consultation scope

The scope of the current consultation concerns the review of a group of substances titled small brominated alkyl alcohols (hereafter SBAA). Substances in the scope of this group are defined as having 3-5 carbons, 2-3 bromine atoms and 1-2 alcohol groups. A list of substances in this group that have been associated EC and/or CAS numbers is detailed in the table below. A full list is included in the annex of the guiding document available on the SBAA webpage; <http://rohs.exemptions.oeko.info/index.php?id=212>

Table 2-1: Substances of the SBAA covered by this stakeholder consultation (non-exhaustive list, see also annex of background document)

No.	CAS	EC	Substance name
1	96-13-9	202-480-9	2,3-dibromopropan-1-ol, 2,3-dibromo-1-propanol
2	96-21-9	202-489-8	1,3-dibromopropan-2-ol
3	106023-63-6		3-Bromo-2-(bromomethyl)-1-propanol
4	19398-47-1	243-029-6	1,4-dibromobutan-2-ol
5	79033-40-2		3,4-Dibromo-2-butanol
6	4021-75-4		2,3-dibromobutan-1-ol
7	87018-30-2		3,4-Dibromo-1-butanol
8	35330-59-7		3,4-Dibromo-1,2-butanediol
9	14396-65-7	627-179-3	1,4-Dibromo-2,3-butanediol
10	855236-37-2		2,3,4-Tribromo-1-butanol
11	87018-38-0		1,2,4-Tribromo-3-butanol
12	105100-80-9		2,2-Bis(bromomethyl)-1-propanol
13	213821-22-8		4,5-Dibromo-2-pentanol
14	408319-76-6		1,2-Dibromo-3-pentanol
15	159475-15-7		1,4-dibromo-(R*,R*)-(9CI)-3-pentanol
16	343268-04-2		2,4-Dibromo-3-pentanol
17	76377-07-6		3,4-Dibromo-(2R*,3S*,4S*)-(9CI)-2-pentanol
18	59287-66-0		4,5-Dibromo-1-pentanol
19	856991-78-1		2,5-Dibromo-1-pentanol
20	100606-66-4		2-Pentanol, 1,5-dibromo-
21	213821-20-6		2,5-Dibromo-2-pentanol

No.	CAS	EC	Substance name
22	98069-26-2		4-Bromo-2-(bromomethyl)-1-butanol
23	3296-90-0	221-967-7	2,2-bis(bromomethyl)propane-1,3-diol; Synonyms: Dibromo-neopentyl-glycol
24	44804-46-8		4-Bromo-2-(bromomethyl)-1,3-butanediol
25	1522-92-5	622-370-8	3-Bromo-2,2-bis(bromomethyl)-1-propanol
26	36483-57-5	253-057-0	2,2-dimethylpropan-1-ol, tribromo derivative; Synonym: Tribromoneopentyl alcohol

3. How to submit a stakeholder contribution

The following general guidelines should be taken into account:

- Refer to the substances listed in **Fehler! Verweisquelle konnte nicht gefunden werden.** and have a clear reference as to the name of the substance and CAS number.
- Take the **consultation questionnaire** into account (available under <http://rohs.exemptions.oeko.info/index.php?id=212>).
- Provide information in response to the various questions as well as other information that you consider of importance to this process. To support your comments, please **provide relevant technical and scientific evidence**. Where relevant, please provide quantitative data, figures or diagrams to illustrate your views. Provision of third party data and information may be beneficial to further support your view. **Sources of information** should be referenced where possible.
- Provide your input to the consultation as early as possible in order to allow other stakeholders to comment.
- As this process is a public one, the use of confidential information to support a certain view is limited. You may submit confidential information, however please bear in mind that should information marked as confidential be found to be essential for supporting a certain point, you shall be requested to reformulate it so that it can be made public. In such cases you shall need to give explicit agreement to the DEPA and the project team to disclose the relevant information on their website.
- Nevertheless, comments shall be clearly marked **“NOT FOR PUBLICATION”** if they are not to be posted as comments on the consultation website. Please also refrain from submitting confidential and non-confidential information mixed in one document!
- Please refrain from submitting several identical comments in order to support a position / comment. It is more useful and efficient to include a cover letter stating that a submission is supported by several parties.
- Submit **compact and comprehensive information** instead of very large and extensive documentation. It will facilitate formulating the need for further information.

- Always include **your contact details** (or of the person responsible for further contact with name, organisation, email and phone number). The evaluation of submitted information will normally lead to further questions which we need to address to you directly.
- If you submit documents in **PDF-formats**, please make sure that text can be marked and copied selectively from these documents in order to avoid retyping (which is a possible source of mistakes) when summarising your arguments for the review report.

Interested parties are invited to send their comments by e-mail, at the latest on **3 November 2016**, to rohs.exemptions@oeko.de or by post to:

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Responses submitted electronically will be posted on this web site as they are received, unless respondents specifically request that their contribution should not be published. In the latter case, responses should be clearly and visibly marked with the words “**Not for publication**”.