BASTA

Properties criteria - BETA

Option 1 - according to KIFS 2005:7

VERSION 2014:A2

VALID FROM 01/01/2014

Introduction

The BETA–register is a part of the BASTA–system. Products that are registered in the BETA–register may not contain substances with properties according to agreed criteria, at concentrations equal to or above specified limits.

As these criteria are less stringent than the BASTA-criteria 1), products registered in the BETA–register may be associated with risks. The supplier must therefore specify which BASTA-criteria the product does not meet.

The supplier must also meet a number of requirements as to be allowed to register products in the system:

- the supplier provides information for the assessment of risks during handling, usage, demolition and waste, as well as instructions for handling such risks.
- the supplier confirms that any of their products registered in the BETA–register meet the properties criteria at all times.
- the supplier can present documentation verifying the evaluation of the properties of their products registered in the BETA–register.
- the supplier has an organisation with a clear distribution of responsibility for all information upon which their registration in the BETA–register is based.
- the supplier has the appropriate expertise available for dealing with the terms of qualification for registration of products in the BETA–register.

Products that meet the BASTA-criteria shall be registered in the BASTA-register 7)

The criteria have been based on the REACH Regulation (Regulation (EC) No. 1907/2006), the Council Directive 67/548/EEC and on the PRIO-guide, a database for risk reduction of chemicals from the Swedish Chemicals Agency.
The classification according to KIFS 2005:7 applies to chemical products. Chemical products include both substances[2)] and preparations[3)]. If the classification of a mixture/preparation, due to its properties differ from the included substances respective classification, it is the classification of the preparationsthat applies if this is the way the product is delivered to the construction site (or equivalent).

Concentrations are to be considered for the product in the form it is delivered to a building site or equivalent. Chemicals that have been used in manufacturing but are not present in the delivered product do not need to be considered. If not stated in otherwise the assessment shall be made considering the total concentration of different substances with the same property.

For complex articles that consist of several parts, the basis for calculations should be the weight of the individual part that contains the substance, not the total weight of the complex article. The concentration, which is compared to the BASTA defined concentration limit, should therefore be calculated on each part of a complex article which itself meets the definition of an “article” in article 33 in the REACH regulation (se not 11).

The properties criteria describe the substance properties which the BASTA-system aims to phase out. The accepted concentration limit normally allowed in the product is shown. (NOTE: It happens in some cases that other concentration limits are specially specified, see note 4). It is shown in the table below if a

summation of different substances with similar properties shall be done. In addition there are footnotes with additional information. There is also a list of risk phrases used in this document.

Properties criteria in the BETA–register

Substance Properties	Definition according to Alternative 1	Concentration limit (by weight) (if specific limits not are specified) [4), 11)]	Summation [12)]
1. Carcinogenic	Substances with properties according to hazard class of carcinogenic in category 1 or 2 [5)] (R45, R49)	0,1%	—
2. Mutagenic	Substances with properties according to hazard class of mutagenic in category 1 or 2 [5)] (R46)	0,1%	—
3. Toxic to reproduction	Substances with properties according to hazard class of toxic to reproduction in category 1 or 2 (R60 and/or R61)[5)] Chemical products Articles	 0,5%[6)] 0,1%	 — —
4. Effect during lactation	Substances with properties according to hazard class of: may cause harm to breastfed babies [5)] (R64)	1%	—
5. Endocrine disrupting	The criterion will cover the substances which will receive the overall assessment Cat 1 or Cat 2 in EU's - EDC Database[7)]	0,1%	—
6. Persistent, bio accumulative and toxic organic compound [8)] (PBT)	Substances with 1) a half-life > 60 days in seawater **or** >40 days in freshwater **or** > 180 days in seawater sediment **or** >120 days in freshwater sediment **or** >120 days in soil **and** 2) BCF (Bio Concentration Factor) >2000 and 3) Chronic toxicity NOEC < 0.01mg/l or NOEC < 30 mg/kg food or CMR or classified T; R48 or XN; R48 or R64	0,1%	—
7. Very persistent and very bio accumulative organic compound [8)] (vPvB)	Substances with 1) a half-life > 60 days in seawater or freshwater or > 180 days in seawater or freshwater sediment or > 180 days in soil and 2) BCF (Bio Concentration Factor) >5000	< 0,1%	—
8. Lead (Pb)	Lead or compounds of lead	0,1% [9)]	Yes
9. Mercury (Hg)	Mercury or compounds of mercury	Total ban [10)]	Yes
10. Cadmium (Cd)	Cadmium or compounds of cadmium	0,01%	Yes
11. Dangerous to the ozone layer	Substances with Ozon Depletion Potential (ODP) > 0 (R59)	< 0,1%	—

NOTES

1) See properties criteria –BASTA [1)]

2) Substances: means chemical elements and their compounds as they occur in in the natural state or as produced by industry.

3) Preparations: means mixtures or solutions composed of two or more substances.

4) In cases where a lower concentration is stated in table 3.2 in Annex IV to the Council Directive on classification, labelling and packaging of substances and mixtures (CLP) (Regulation (EC) No. 1272/2008), the stated concentration applies. In cases where there are lower concentrations stated Annex IV to the council directive on Persistent Organic Pollutants (1195/2006/EG), the stated concentration applies.

5) In accordance with Council Directive 67/548/EEC. The assessment is to be based on all relevant data on the hazardousness to health and the environment of the product. The criteria are directly applicable when data are obtained from information requirements described in article 13 to regulation (EC) no. 1907/2006 (REACH). If for a given property that is hazardous to health or the environment, there are data from several studies which, according to the criteria, would lead to differing classification, the data that result in the strictest classification are to be used provided they are of good scientific quality.

6) After the 1st of June 2015 the concentration limit for chemical products will be reduced to the same level as articles, 0,1%, according to the European Parliament and article 59 in the Regulation and classification, packaging and labelling of substances and mixtures (CLP) (Regulation (EC) No. 1272/2008).

7) EU's - EDS Database can be downloaded at: http://ec.europa.eu/environment/chemicals/endocrine/strategy/being_en.htm, To extract the database, please follow these instructions:
   1. Download the zipped file to your hard-disk
   2. Unzip the file and run the database (by a double-click on the mdb-file).
   3. Choose "Categorisation" in order to view the substances that are included in the database.

Minimum requirement: MS Access 2003 or later.

8) There are substances that fulfil the criteria for both PBT and VPvB. They must be tested both according to the criteria 6 and 7, if such substances are present in the product. The criteria for potentially PBT according to PRIO (www.kemi.se) can, in cases where it indicates no potential and where no other data exist, be used as a base for the PBT-classification.

9) The intention is that the concentration of these substances shall be close to zero. The BETA registry allows exceptions to the concentration limit 0.1% in accordance with the RoHS Directive (2011/65/EU).

10) In accordance with the Swedish directive (1998:944) there is a general Swedish ban on mercury with specified exclusions. Low concentrations of mercury that are not intentionally added in any stage thus fall outside the prohibition. **Low levels of mercury refer in BASTA to a maximum occurring concentration of 2.5 mg per kg**. In the BETA-register, exception according to the RoSH directive is accepted (2011/65/EU).

11) For complex articles that consist of several parts, the basis for calculations should be the weight of the individual part that contains the substance, not the total weight of the complex article. The concentration, which is compared to the BASTA defined concentration limit, should therefore be calculated on each part of a complex article which itself meets the definition of an "article" in article 33 in the REACH regulation:

"An article is an object which during production is given a special shape, surface or design which determines its function to a greater degree than its chemical composition".

During an industrial process, a chemical product may cease to be a chemical product and become an article. When an undesired substance is found in the chemical product, it is the weight of the new article that is formed in the process where the chemical product becomes an article which is used to calculate the concentration of the undesired substance when applying the BASTA criteria. For example, if two boards are glued together and an undesired substance is present in the adhesive layer, it is the weight of the new articles, i.e. the joined boards, that is used to calculate the concentration of the undesired substance.

If a board instead is covered with a laminate, which is defined as a separate article by the REACH definition, and there is an undesired substance present in the laminate; it is the weight of the laminate itself that is used to calculate the concentration of the undesired substance.

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Swedish interpretation of the 0.1 % for giving information according to articles 7.2 and 33
Dissenting views on the guidance on requirements for substances in articles

12) Summation of the concentrations of various substances with similar properties.

Risk phrases used in these criteria

R 45	May cause cancer
R 46	May cause heritable genetic damage
R 48	Danger of serious damage to health by prolonged exposure
R 49	May cause cancer by inhalation
R 59	Dangerous for the ozone layer
R 60	May impair fertility
R 61	May cause harm to the unborn child
R 64	May cause harm to breastfed babies
H 420	Harms public health and the environment by destroying ozone in the upper atmosphere

Information about construction products that meet the properties criteria are found on the web-site www.bastaonline.se

E-mail address is bastaonline@ivl.se

You can also contact BASTAonline AB, Box 21060,
SE-100 31 Stockholm, Sweden. Telephone +46 8 598 563 00 for more information.