

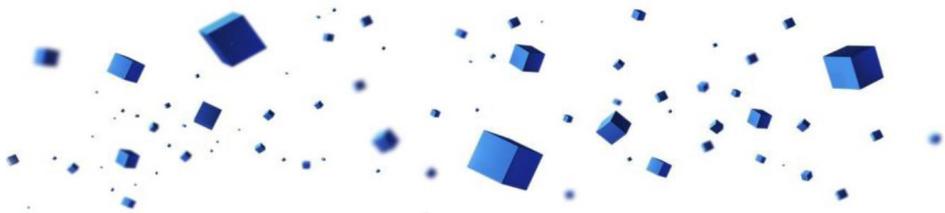
bluesign® CRITERIA for chemical assessment

ANNEX: Exceptions

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1 Introduction

In some cases exceptions from the standard rating have been defined in the modules BSBL, consumer safety and GHS.

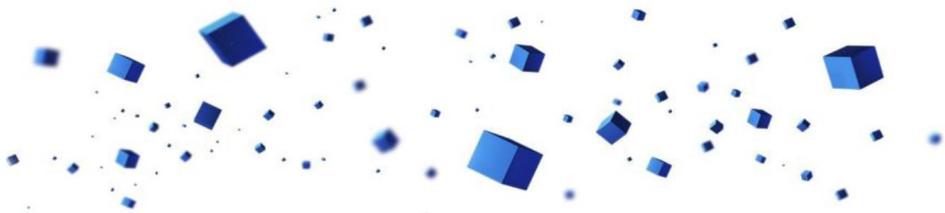
Background of deviating rating rules are e.g. exceptions defined in BSSL or BSBL or limitations of the calculation models, that may do not fit to reactive systems or solvent based processes. In this Annex the exceptions are listed and explained.

2 Exceptions BSBL module

BSBL limits are usually independent from application parameter (purely hazard-based approach). In some cases specific exceptions are defined in the BSBL (e.g. for some solvents in solvent coating) to account for important industry needs and currently available technology.

The substances and the relevant conditions for exceptions are listed below.

BSBL Substances	Limit Type	Tool Rating	Conditions for Exception		
			Solvent Type	Chemical Function	Process Categorization
N,N-Dimethylacetamide (DMAc) N,N-Dimethylformamide (DMF)	Usage ban	grey	Solvent	Solvent (intended)	Coating, Laminating, Spinning
Xylene, all isomers, Toluene	Usage ban	grey	Solvent	Solvent (intended)	Coating, Laminating, Painting/lacquering
Dichloromethane	Usage ban	grey	Solvent	Solvent (intended)	Paint stripping
Tetrachloroethylene	Usage ban	grey	Solvent	Solvent (intended)	Drycleaning



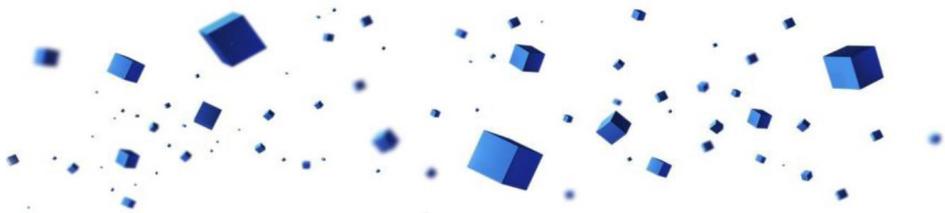
3 Exceptions Consumer Safety Module

Exceptions in this module are defined in alignment with exceptions defined in the BSSL and/or those cases where the model calculations do not fit and would not lead to realistic predicted substance concentrations on finished articles (e.g. for reactive components or solvents). For those applications a test on the finished article shall be done to confirm compliance with the BSSL limits. The different cases, the concerned substances and exception criteria are listed below.

- Case 1:** Metal complex dyes have a strong fixation on the finished article. Such effects are not considered in the model calculation and would lead to non-realistic results.
- Case 2:** Reactive components, where the chemical substance is modified in a chemical reaction or released during the process cannot be calculated with the existing models.
- Case 3:** If the chemical product is solvent based, the calculation is not possible, because the models are only valid for water based systems and a model calculation would never be precise enough to determine the residual solvent content on the finished article.

The substances and the relevant conditions for exceptions are listed below.

Reason for Exception	BSSL Substance	Conditions for Exception			
		Solvent Type	Chemical Function	Process Categorization	Product Categorization
Case 1	Chromium - as content Cobalt - as content Copper - as content Nickel - as content	-	Metal content of metal complex dye	-	All colorant classes that may contain metal complex dyes
Case 2	Formaldehyde Isocyanates	-	Reactive component (free content)	-	-
Exception defined in BSSL	ε-Caprolactam	-	Ingredient (intended)	-	Polycaprolactam (PA 6), adhesives, hotmelts
Case 2	2-Butanone oxime	-	Blocking agent (free content)	-	-
Case 3	N,N-Dimethylacetamide (DMAc) N,N-Dimethylformamide (DMF)	Solvent	Solvent (intended)	Coating, Laminating, Spinning	-
Case 3	Tetrachloroethylene	Solvent	Solvent (intended)	Dry cleaning	-
Case 3	Acetone, Cyclohexane, n-Hexane, Toluene, Xylene, all isomers	Solvent	Solvent (intended)	Coating, Laminating, Painting/lacquering	-
Case 3	Trimethylbenzene isomers	Solvent	Solvent (intended)	Coating, Painting/lacquering	-
Case 3	n-Pentane	Solvent	Solvent (intended)	Laminating, Painting/lacquering	-



4 Exceptions GHS general

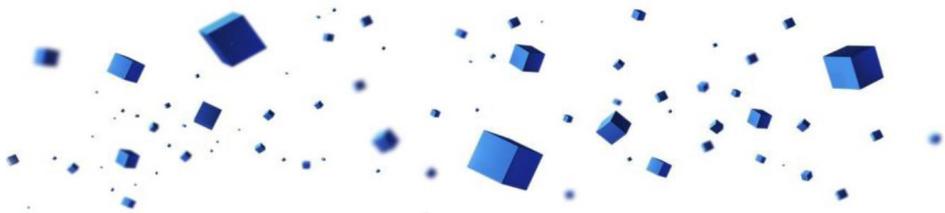
There are a few exceptions where the GHS module would normally lead to a black rating but a 'grey' rating is allowed due to the following reasons:

- The use of these substances are industrial state of the art and for specific cases no safer alternatives are available
- Alignment with consumer safety module: Exceptions that are defined in the BSSL shall not be overruled by the GHS module
- For selected reactive systems (e.g. reactive hotmelts), substances are consumed in process, consumer safety ensured by CS module

4.1 Exceptions GHS I: Based on categorization

- Case 1:** In galvanic processes, some toxic substances (e.g. cyanides) cannot be avoided and are state of the art. Therefore exceptions are defined. In practice a check of oxidizing step in waste water treatment is required at on-site inspection.
- Case 2:** When respiratory sensitizing dyes (H334) are used in textile (or leather) mills a low health risk in process is given, because they are always applied in a liquor and the risk of inhalation is negligible.
- Case 3:** Chemical products with H400, 410 or 411 that are not intended to be released to the waste water, because they are fixed on the article (e.g. dyestuffs, coatings).

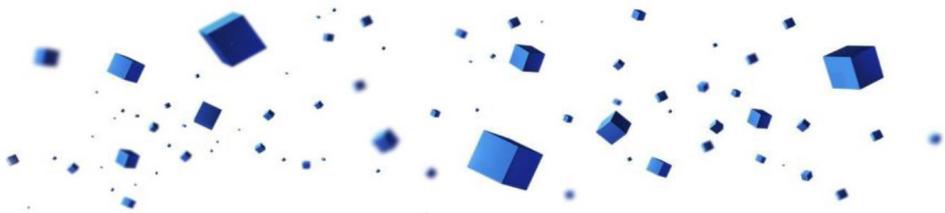
Reason for Exception	Conditions for Exception			
	H-Statements	Product Category	Product Subcategory	Sector of Use
Case 1	H300, H310, H311, H330, H331, H400, H410, H411	Metal treatment and surface treatment products, including galvanic and electroplating products		Manufacture of basic metals, including alloys; Manufacture of fabricated metal products
Case 2	H334	Dyes and pigment preparations	All colorant classes	Textile, Leather
Case 3	H400, H410, H411	Dyes and pigment preparations	All colorant classes	Textile, Leather, Down/feather, Polymer parts
Case 3	H400, H410, H411	Inks and process auxiliaries (for all uses)	All ink categories	Textile, Leather, Polymer parts, Metal parts
Case 3	H400, H410, H411	Adhesives, sealants (for all uses)	Several water based adhesives or curing agents	Textile, Leather, Polymer parts, Metal parts
Case 3	H400, H410, H411	Coating compounds, paints, lacquers, coats, thinners, paint removers and process aids	multiple	Textile, Leather, Polymer parts, Metal parts
Case 3	H400, H410, H411	Textile auxiliaries and functional agents	Aftertreatment agents for fastness improvement (affinity to fibre)	Textile
Case 3	H400, H410, H411	Leather preparation	Aftertreatment and fixing agents	Leather



4.2 Exceptions GHS II: For specific substances

The substances with reasons and conditions for the exceptions are listed in the below table.

Reason for Exception	Substance	Conditions for Exception						
		Relevant H-statements	Solvent Type	Chemical Function	Process Categorization	Product Categorization	Max. allowed	Rating
Reactive system, substance consumed	Formaldehyde	H317, H350	-	Reactive component (free content)	-	Textile auxiliaries and functional agents	3%	grey A/B/C
Reactive system, substance consumed	Isocyanates (as listed in BSSL)	H317, H330, H334, H351	-	Reactive component (free content)	Laminating	Reactive hotmelts	5%	grey A/B/C
State of the art for process	N,N-Dimethylacetamide (DMAc) N,N-Dimethylformamide (DMF)	H360, H360D	Solvent	Solvent (intended)	Coating, Laminating, Spinning	-	90%	grey B/C
State of the art for process	n-Hexane Toluene	H361, H361d	Solvent	Solvent (intended)	Coating, Laminating, Painting/lacquering	-	90%	grey A/B/C
Preservatives with very low limits for classification, but required as in-can preservatives in water-based (solvent-free) systems	Isothiazolinones with strong sensitizing property but no usage ban. (OIT, CIT, CIT/MIT (3:1), MIT, BIT, MBIT)	H317	-	Preservative (intended)	-	-	0.1%	grey A/B/C



4.3 Exceptions GHS III: Skin sensitizing products (H317) in usage range A

This exceptional rule is defined for skin sensitizing chemical products. In cases when a mixture is classified with H 317 (May cause an allergic skin reaction), the application for usage range A (next to skin) is per default not allowed to protect consumers from sensitizing substances on textiles. Bluesign grants exceptions for two cases:

- Chemicals that will not remain on the article (e.g. detergents)
- Dyestuffs and pigments with a strong fixation to the article (this exception is not possible for disperse dyes)

The exceptions are linked to certain conditions as described in below table.

Conditions for Exception				
Product Category	Product Subcategory	Process Category	Sector of Use Group	Precondition
Dyes and pigment preparations (for all uses)	All colorant classes except disperse dyes and mixtures containing disperse dyes	Dyeing Printing	Textile, Down/feather, Leather	No
Dyes and pigment preparations (for all uses)	Disperse dyes; Mixture: Disperse and acid/metal complex dyes	Dyeing Printing	Textile, Down/feather, Leather	Usage range A possible when the disperse dyesuff is not H317 (proven by specific test)
Textile auxiliaries and functional agents	multiple	Bleaching	Textile, Down/feather, Leather	No
Textile auxiliaries and functional agents	multiple	Dry cleaning	Textile	No
Textile auxiliaries and functional agents	multiple	Pretreatment	Textile, Down/feather	No
Textile auxiliaries and functional agents	multiple	Scouring	Textile, Down/feather	No
Textile auxiliaries and functional agents	Wetting agents; Anti-foaming agents	Sizing	Textile	No
Textile auxiliaries and functional agents	Wetting agents; Anti-foaming agents	Weaving	Textile	No