

# bluesign® system substances list (BSSL) Consumer safety limits

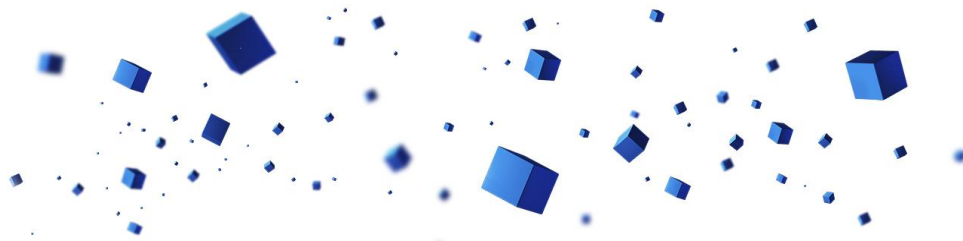
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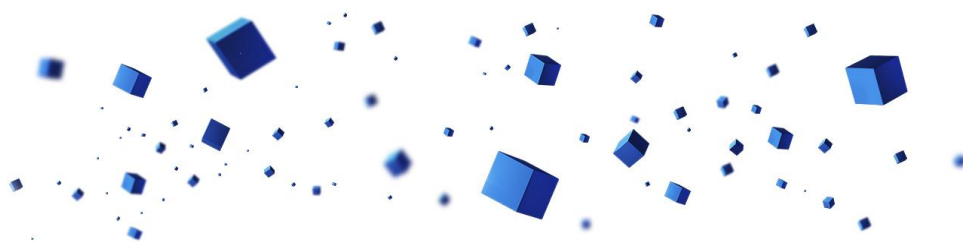


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## 1 Introduction

The document specifies the limits for chemical substances in articles. It also defines usage bans for chemical substances prohibited from the manufacturing of articles.

It is important to know that due to quantity and range of listed substances and substance groups the consumer safety limits cannot be controlled by testing of articles alone and/or by confirmation declarations from suppliers (conventional RSL and/or testing approach). This is the reason why the bluesign® SYSTEM integrates the up-stream parts of the manufacturing chain including chemical suppliers. Only an input-stream management with an appropriate network of bluesign® SYSTEM PARTNERS leads to comprehensive knowledge on chemical products and assures that restrictions and bans are achieved.

## 2 Definitions

### 2.1 Accessory

A component of a consumer product which is not classified as textile fabric (e.g. button, label, zipper, etc.)

### 2.2 Article

An object which during production is given a special shape, surface or design, which determines its function to a greater degree than does its chemical composition (fibers, textile fabrics, buttons, zippers, etc.).

### 2.3 BSSL

*bluesign® system substances list (BSSL) Consumer safety limits.* A list that specifies consumer safety limits for chemical substances in articles. It also defines usage bans for chemical substances prohibited from the manufacturing of articles.

### 2.4 CAS

CAS registry numbers are unique numerical identifiers for chemical elements, compounds, polymers, biological sequences, mixtures and alloys. Chemical Abstracts Service (CAS), a division of the American Chemical Society, assigns these identifiers to every chemical that has been described in the literature. The intention is to make database searches more convenient, as chemicals often have many names. Almost all molecule databases today allow searching by CAS number.

### 2.5 Chemical substance

A chemical element and its compounds with constant composition and properties. It is defined by the CAS number.

### 2.6 Component

A part of an article that can be distinguished according to the material composition, the functionality and/or the color and is easily, mechanically separated from the other components.

### 2.7 Detection limit (DL)

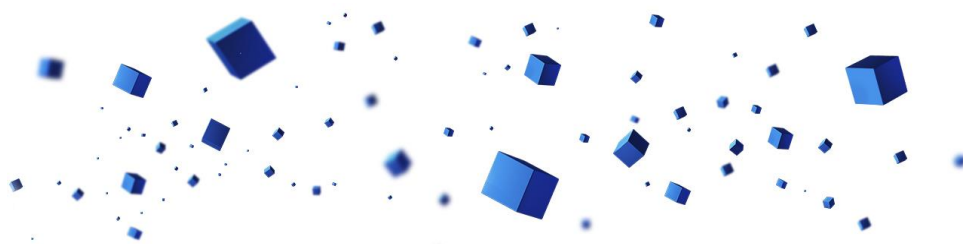
The detection limit is the lowest quantity of a substance that can be distinguished from the absence of that substance following a prescribed analytical method.

### 2.8 Limit value

The maximum amount of chemical substances permitted in articles for the usage ranges A, B and C.

### 2.9 Mixture

A chemical product composed of two or more substances. It can be, for example, a colorant or an auxiliary.



#### 2.10 Monitoring

For some chemical substances toxicological and/or ecological properties are not yet well defined. Therefore, the risk assessment is not complete. For some substances sufficient information on possible/typical contamination of articles and chemical products is not available now. Those substances are under observation. Exact restrictions will be defined as soon as more information exists. In cases where monitoring status is accompanied by a limit value, the limit value should be the goal.

#### 2.11 Several

Several means, that the whole substance group is restricted although not all substances that are restricted are explicitly listed. The listed examples represent those substances which should be considered if substance group is intended for testing.

#### 2.12 Traces

Although there is a ban for a chemical substance, residual amounts of this substance may be contained in a product from a non-intended source. In this case, a limit is defined to minimize these currently unavoidable traces.

#### 2.13 Usage ban

For several chemical substances or substance groups a usage ban is defined. For these substances or substance groups intentional use in manufacturing of articles is prohibited. That means that chemical products (e.g. colorants or textile auxiliaries) used for manufacturing of articles must not intentionally contain these substances or substance groups.

The aim of a usage ban is to avoid release of harmful substances to the environment and to avoid occurrence in the manufactured article by applying the precautionary principle.

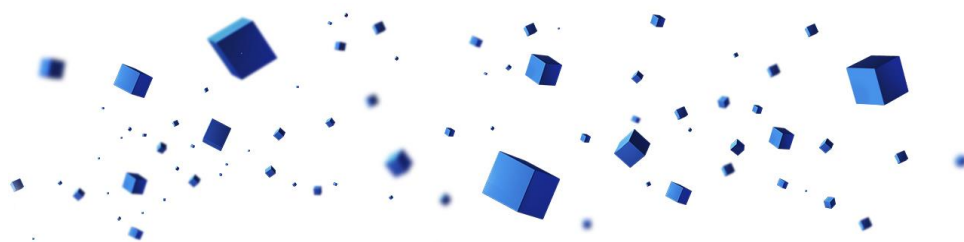
#### 2.14 Usage range

Usage ranges classify consumer goods according to their consumer safety relevance.

Three usage ranges (A, B, C) are defined with A being the most stringent category concerning limit values/bans:

- Usage Range A: Next to skin use and baby articles (0 to 3 years)
- Usage Range B: Occasional skin contact
- Usage Range C: No skin contact

Annex II lists common consumer goods and allocates usage ranges.



### 3 Testing methods

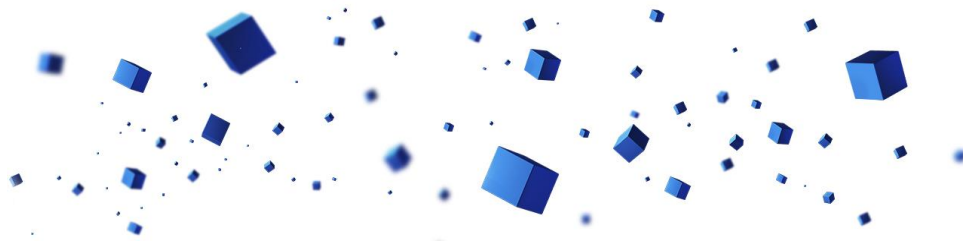
The testing methods listed in the last column of the table in chapter 5 are the recommended ones. The testing methods column consists of two entries: sample preparation, e.g. extraction, digestion, derivatisation, and the test method, e.g. GC-MS, LC-MS, etc.

Depending on their availability international or national standards are also given for several substances and these methods may be applied. Other accredited methods can only be applied if it can be verified that equivalent results are obtained.

Details of the respective sample preparation methods can be found in the table below:

Sample preparation	Solvent(s)	Temperature (°C)	Time (min)	Other requirements
Extraction with KOH	Potassium Hydroxide (1M)	90	12-15 h	Derivatisation with Acetic anhydride
Extraction with MeOH	Methanol	70	60	Ultrasonic bath
Extraction with THF	Tetrahydrofuran	40	60	
Extraction with DCM	Dichloromethane	40	60	Ultrasonic bath
Extraction with MTBE	Methyl tert-butyl ether	60	60	Ultrasonic bath
Extraction with water	Deionized water			
Extraction with MeOH/Acetonitrile	Methanol/Acetonitrile (1:1)	70	30	Ultrasonic bath
Extraction with Potassium carbonate solution	Potassium carbonate solution	Room temp.	60	Ultrasonic bath
Extraction with THF/Acetone	Tetrahydrofuran/Acetone	60	60	Ultrasonic bath, derivatization with Acetonitrile
Extraction with Acetone	Acetone	70	60	Ultrasonic bath
Extraction with Hexane/Dichloroethane	Hexane/Dichloroethane	70	60	
ASE - Accelerated Solvent Extraction	Acetone/Hexane (1:1)	100	-	
ASE - Accelerated Solvent Extraction	Ethyl acetate	40	-	
Soxhlet Extraction	Acetone/Hexane (1:1)	-	480	
Headspace	-	120	45	
DIN EN ISO 105-E04 (2013)	Acidic sweat solution	37	60	Textile to liquor ratio 1:50

For headspace measurements a purge & trap gas chromatography is recommended.



## 4 Scope and validity

The document specifies restrictions (limits and bans) for chemical substances in

- articles made of textile and leather
- accessories for textile and leather articles

### 4.1 Application

The limits and restrictions have to be applied for each individual component of an article.

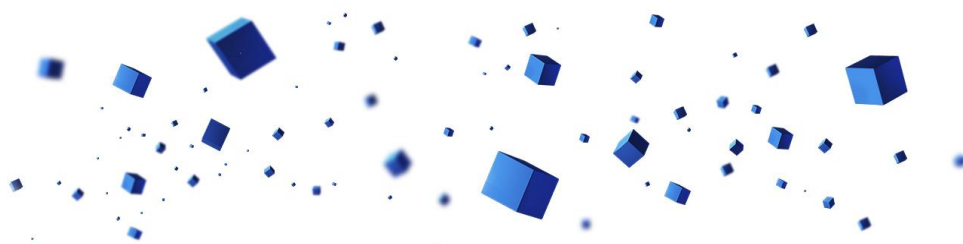
A component is each part of an article that can be distinguished according to the material composition and/or functionality and/or color and is easily mechanically separated from other components.

### 4.2 Validity

This document comes into effect from July 1, 2019. It replaces the *bluesign® system substances list (BSSL) Consumer safety limits, version 9.0* from July 1, 2018.

For all bluesign® SYSTEM PARTNERS the implementation of the revised sections (new substances marked grey), unless stated otherwise, shall take place by July 1, 2020 at the latest.

This document is revised annually and in line with the latest legislation and research and supported by opinions of the bluesign® SYSTEM PARTNER experts.



## 5 Consumer safety limits and usage restrictions

Section 5.1 informs on all consumer safety limits and restrictions.

Section 5.2 lists additional substances which are either not relevant concerning consumer safety aspects, or which are normally not to be found as residues in the articles (due to the fact that they are used in very early manufacturing steps) but their use is banned or restricted under the bluesign® SYSTEM.

Annex I lists single substances belonging to groups: asbestos, chlorinated benzenes and toluenes, colorants which can cleave into carcinogenic amines, dioxins and furans, fluorinated greenhouse gases, ozone depleting substances and pesticides.

Annex II details the usage ranges applicable under the bluesign® SYSTEM and how they classify consumer goods according to their consumer safety relevance.

### 5.1 Consumer safety limits

Besides the restrictions and bans for chemical substances mentioned in section 5.1.6 the restrictions defined in the sections 5.1.1 to 5.1.5 are in force.

#### 5.1.1 pH

Test method: ISO 3071 (2005) (non-leather products), ISO 4045 (2008) (leather products)

Range: 4.0 to 7.5 (non-leather products), 3.5 to 7.5 (leather products)

#### 5.1.2 Odor

No unpleasant odor shall be emitted from the products.

Test method: SNV 195 651

#### 5.1.3 Sensitizing disperse dyes

Disperse dyes (mainly used in PES dyeing) which are sensitizing and classified with the risk phrase H 317 are not allowed for the usage range A.

#### 5.1.4 Textiles dyed with disperse or metal complex dyes

Disperse dyes and metal complex dyes may have a relevant consumer safety risk. Therefore, special restrictions concerning color fastness to perspiration are defined: for textiles dyed with disperse or metal complex dyes, fastness to perspiration must be at least between 3 and 4. The goal should be  $\geq 4$ .

Test method: ISO 105-E04 (2013)

#### 5.1.5 Color fastness to saliva and perspiration

Testing of color fastness to saliva and perspiration can be relevant for articles with potential risk for mouthing and/or exposure to babies. Colors must be fast to saliva and perspiration. This corresponds to level 5 of the currently valid standard DIN 53160-1 (2010) (test with artificial saliva) and DIN 53160-2 (2010) (test with artificial sweat). The 5-step grey scale and its use for determining changes in colour of textiles in colour fastness tests are described in ISO 105-A02 (1993).

Test methods: § 64 LFGB BVL B 82.10-1 in combination with DIN 53160-1 and -2.

#### 5.1.6 Restrictions and bans for chemical substances

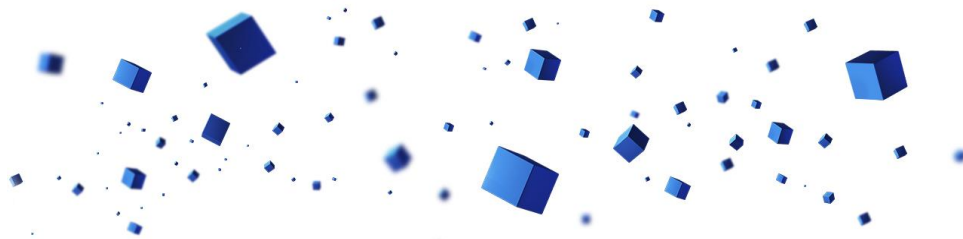
For easier comprehension and overview the substances are listed in groups according to the

- chemical composition (e.g. amines, isocyanates)
- functionality (e.g. flame retardants, solvents)
- EHS-properties/risks (e.g. greenhouse gases, ozone depleting substances)

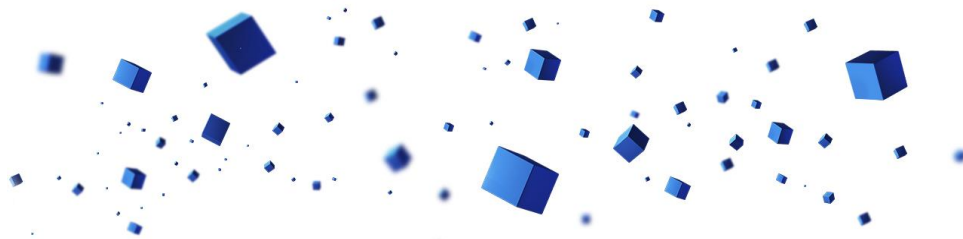
Note:

Some of the substances may be relevant for more than one group; in such cases the substance is listed in the most likely group.





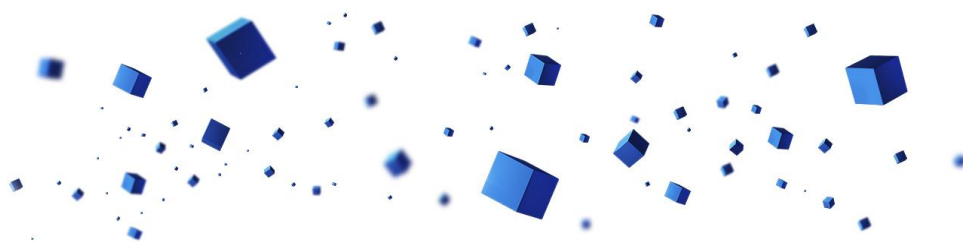
Aldehydes					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acrolein	107-02-8	Usage ban // Traces: 1.0			Extraction with MeOH // LC-MS
Acetaldehyde	75-07-0	10	10	100	Extraction with MeOH // LC-MS
Formaldehyde	50-00-0	DL: 15	75	300	Textile: ISO 14184-1 (2011)  Leather: ISO 17226-1 (2008) or ISO 17226-2 (2008)
Glyoxal	107-22-2	5	10	10	Extraction with MeOH // LC-MS
		Leather: Monitoring			



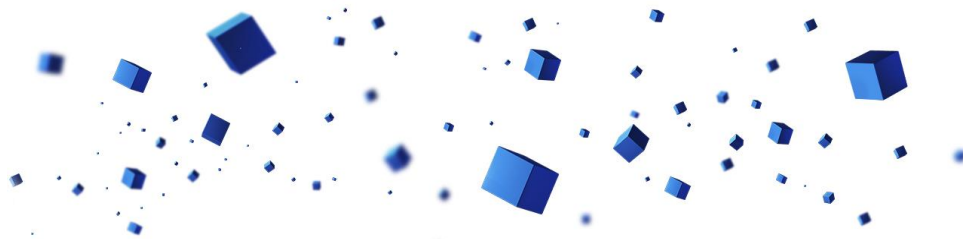
Alkylphenols and Alkylphenoethoxylates					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Alkylphenols (APs)	Several	Usage ban // Traces: 10 for every single substance			Textile: ISO 18254-1 (2016)  Leather: ISO 18218-1 (2015)
Nonylphenol, mixed isomers	25154-52-3				
Isononylphenol	11066-49-2				
4-Nonylphenol	104-40-5				
4-Nonylphenol, branched	84852-15-3				
Octylphenol	27193-28-8				
4-Octylphenol	1806-26-4				
4-tert-Octylphenol	140-66-9				
4-Heptylphenol, branched and linear	-				
4-Nonylphenol, branched and linear	-				
p-(1,1-Dimethylpropyl)phenol	80-46-6				
Alkylphenoethoxylates (APEOs) (EO) <sub>3-20</sub>	Several	Usage ban // Traces: 100 for every single substance  (If traces above 10 are detected the source of contamination has to be identified and phased out)			Textile: ISO 18254-1 (2016)  Leather: ISO 18218-1 (2015)
Isononylphenol, ethoxylated	37205-87-1				
Nonylphenol, branched, ethoxylated	68412-54-4				
Nonylphenol, branched, ethoxylated, phosphated	68412-53-3				
4-Nonylphenol, branched, ethoxylated	127087-87-0				
Octylphenol, ethoxylated	9036-19-5				
Octyl phenol ethoxylate, branched 9.5EO	68987-90-6				
Polyoxyethylated octyl phenol	9002-93-1				
Polyoxyethylated nonyl phenol	9016-45-9				
Polyoxyethylated p-nonyl phenol	26027-38-3				
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	-				
4-Nonylphenol, branched and linear, ethoxylated	-				



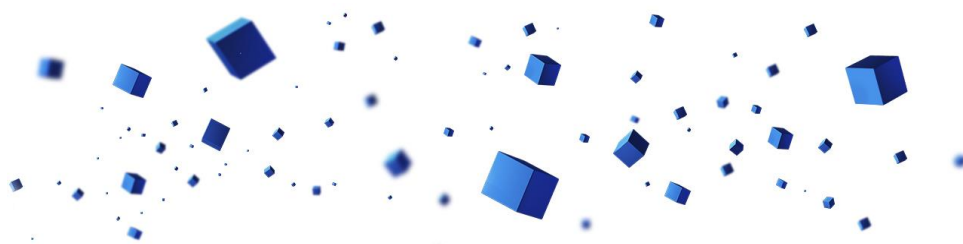
Amines					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
2-Aminoethanol	141-43-5	100	200	200	Extraction with MeOH // GC-MS
Aminoethylethanolamine (AEEA)	111-41-1	Usage ban // DL: 10			Extraction with MeOH // GC-MS
Aniline (free)	62-53-3	Usage ban // DL: 30			Extraction with MeOH // LC-MS
Fatty acid condensation products with AEEA which may cleave to AEEA	Several	Usage ban // DL: 10			Extraction with MeOH and derivatisation with acetylacetone/water // LC-MS
Dicyclohexylamine	101-83-7	500	500	500	Extraction with MeOH // GC-MS
		Monitoring			
Diethanolamine	111-42-2	10	10	10	
Diethylenetriamine	111-40-0	1.0	10	50	
		Monitoring			
Diphenylamine	122-39-4	100	100	100	
		Monitoring			
Dipropylenetriamine	56-18-8	50	50	50	
		Monitoring			
Ethylenediamine	107-15-3	Usage ban // DL: 10			
Hexamethylenetetramine	100-97-0	10	50	50	
Imidazole	288-32-4	Usage ban // DL: 10			
N-Methylaniline (Methylphenylamine)	100-61-8	20	20	20	
2-Naphthylphenylamine	135-88-6	Usage ban // DL: 1.0			
p-Phenylenediamine	106-50-3	Usage ban // DL: 20			
p-Phenylenediamine-dihydrochloride	624-18-0	Usage ban // DL: 20			
Triethanolamine	102-71-6	50	100	100	
Triethylamine	121-44-8	2.0	10	10	
Trimethylamine	75-50-3	10	10	10	



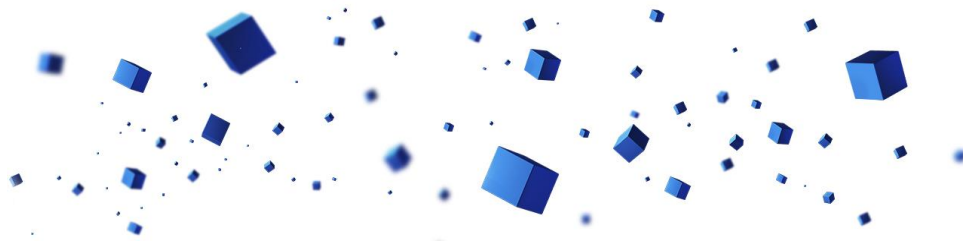
Arylamines (including corresponding salts) Part 1 (as substance, for example in PU, and as decomposition product of azo colorants which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines)					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
p-Aminoazobenzene	60-09-3	Usage ban // DL: 20 for every single aromatic amine			Textile: EN ISO 14362-1 (2017) EN ISO 14362-3 (2017) (for azo colorants which may release 4- Aminoazobenzene)  Leather: EN ISO 17234-1 (2015) EN ISO 17234-2 (2011) (for azo colorants which may release 4- Aminoazobenzene)
o-Aminoazotoluene	97-56-3				
4-Aminobiphenyl	92-67-1				
6-Amino-2-ethoxynaphthalene	293733-21-8				
4-Amino-3-fluorophenol	399-95-1				
2-Amino-4-nitrotoluene	99-55-8				
2-Anisidine	90-04-0				
Benzidine	92-87-5				
4-Chloroaniline	106-47-8				
4-Chlor-2-toluidine	95-69-2				
4-Chloro-o-toluidinium chloride	3165-93-3				
p-Cresidine	120-71-8				
2,4-Diaminoaniso	615-05-4				
4,4'-Diaminodiphenylmethane	101-77-9				
2,4-Diaminotoluene	95-80-7				
3,3'-Dichlorobenzidine	91-94-1				
3,3'-Dimethoxybenzidine	119-90-4				
3,3'-Dimethylbenzidine	119-93-7				
3,3'-Dimethyl-4,4'-diaminodiphenylmethane	838-88-0				
4-Methoxy-m-phenylene diammonium sulphate; 2,4-diaminoaniso	39156-41-7				
4,4'-Methylenebis-(2-chloroaniline)	101-14-4				
2-Naphthylamine	91-59-8				
2-Naphthylammoniumacetate	553-00-4				
4,4'-Oxydianiline	101-80-4				
4,4'-Thiodianiline	139-65-1				
m-Toluidine	108-44-1				
o-Toluidine	95-53-4				
p-Toluidine	106-49-0				



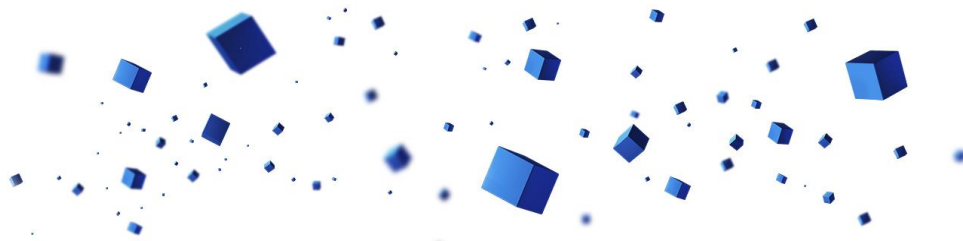
Arylamines (including corresponding salts) Part 2 (as substance, for example in PU, and as decomposition product of azo colorants which, by reductive cleavage of one or more azo groups, may release one or more of the aromatic amines)			
2,4,5-Trimethylaniline	137-17-7	Usage ban // DL: 20 for every single aromatic amine	Textile: EN ISO 14362-1 (2017) EN ISO 14362-3 (2017) (for azo colorants which may release 4- Aminoazobenzene)  Leather: EN ISO 17234-1 (2015) EN ISO 17234-2 (2011) (for azo colorants which may release 4- Aminoazobenzene)
2,4,5-Trimethylaniline hydrochloride	21436-97-5		
2,4-Xylidine	95-68-1		
2,6-Xylidine	87-62-7		



Asbestos					
Chemical Substances	CAS Number	Limit Value [mg/kg]			Recommended Sample Preparation // Test Method
		A	B	C	
Asbestos (Single substances listed in Annex I)	Several	Usage ban // Not detected			REM/EDX BGI 505-46 or U.S. EPA/600/R-93/116

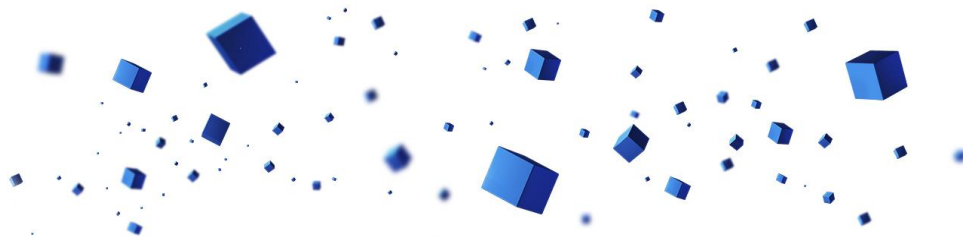


Biocides Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
2-Chloroacetamide	79-07-2	Usage ban // DL: 1.0			Extraction with MeOH // GC-MS
4-Chloro-3-methylphenol (CMK/CMC)	59-50-7	For leather: Monitoring			ISO 13365 (2011)
Dichlorophen	97-23-4	Usage ban // DL: 1.0			Derivatisation with acetic anhydride // GC-MS
Chlorinated and non-chlorinated Isothiazolinone-derivatives		Usage ban			Extraction with MeOH // LC-MS  Leather: ISO 13365 (2011)
5-Chloro-2-methyl-4-isothiazolin-3-one (CIT)	26172-55-4	Traces from preservatives: 1			
2-Methyl-4-isothiazolin-3-one (MIT)	2682-20-4	Traces from preservatives: 50			
Mixture (3:1) of CIT and MIT	55965-84-9	See limits for single substances			
2-n-Octyl-4-isothiazolin-3-one (OIT)	26530-20-1	Traces from preservatives: 25			
1,2-Benzisothiazol-3(2H)-one (BIT)	2634-33-5	Traces from preservatives: 25			
Dichlorooctylisothiazolinone (DCOIT)	64359-81-5	Usage ban // DL: 15			
N-Methylol-chloroacetamide	2832-19-1	Usage ban // DL: 1.0			
Permethrin	52645-53-1	Usage ban for A and B // DL: 1.0  Usage range C // See bluesign® criteria for biocidal products and antimicrobial active substances			ASE or Soxhlet Extraction with Acetone/Hexane // GC-MS or LC-MS

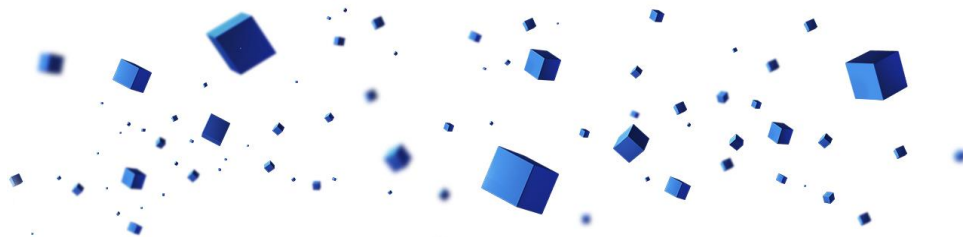


Biocides Part 2						
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method	
		A	B	C		
o-Phenylphenol	90-43-7	For textiles:			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)	
		50	50	50		
		For leather:			ISO 13365 (2011)	
		50	100	200		
2-(Thiocyanatomethylthio)benzothiazol (TCMTB)	21564-17-0	For leather: Monitoring			ISO 13365 (2011)	
Triclosan (5-Chloro-2-(2,4-dichlorophenoxy)phenol)	3380-34-5	Usage ban for A and B // DL: 1.0  Usage range C // See bluesign® criteria for biocidal products and antimicrobial active substances			Extraction with DCM // GC-MS	





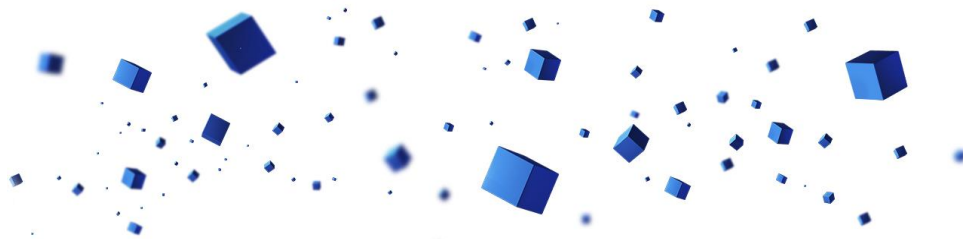
Chlorinated Benzenes and Toluenes					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Chlorinated benzenes		Usage ban // DL: 1.0 for every single substance			DIN 54232 (2010)
Monochlorobenzene	108-90-7				
Dichlorobenzenes, all isomers (Single substances listed in Annex I)	Several				
Trichlorobenzenes, all isomers (Single substances listed in Annex I)	Several				
Tetrachlorobenzenes, all isomers (Single substances listed in Annex I)	Several				
Pentachlorobenzene	608-93-5				
Hexachlorobenzene	118-74-1				
Chlorinated toluenes		For sum of all chlorinated benzenes and toluenes: 5.0			
Monochlorotoluenes, all isomers (Single substances listed in Annex I)	Several				
Dichlorotoluenes, all isomers (Single substances listed in Annex I)	Several				
Trichlorotoluenes, all isomers (Single substances listed in Annex I)	Several				
Tetrachlorotoluenes, all isomers (Single substances listed in Annex I)	Several				
Pentachlorotoluene	877-11-2				
Chlorotoluene, unspecific mixture	25168-05-2				



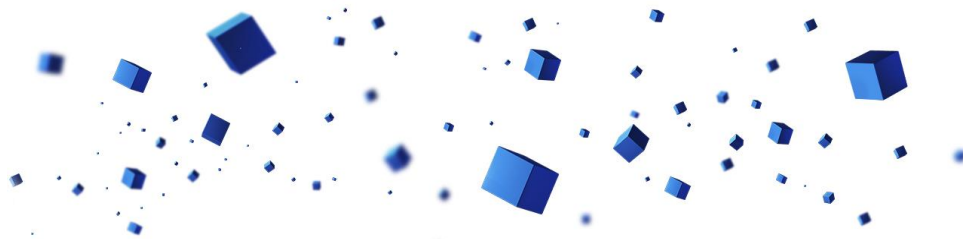
Chlorinated Phenols Part 1								
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method			
		A	B	C				
Monochlorophenols (MonoCPs), all isomers	25167-80-0	Usage ban			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)			
		Traces:						
		1.0	1.0	1.0				
2-Chlorophenol	95-57-8	Sum of all Mono- and DiCPs						
3-Chlorophenol	108-43-0							
4-Chlorophenol	106-48-9							
Dichlorophenols (DiCP), all isomers	25167-81-1							
2,3-Dichlorophenol	576-24-9	Sum of all TriCPs						
2,4-Dichlorophenol	120-83-2							
2,5-Dichlorophenol	583-78-8							
2,6-Dichlorophenol	87-65-0							
3,4-Dichlorophenol	95-77-2							
3,5-Dichlorophenol	591-35-5							
Trichlorophenols (TriCP), all isomers	25167-82-2					Usage ban		
						Traces:		
						0.05	0.5	0.5
2,3,4-Trichlorophenol	15950-66-0				Sum of all TriCPs			
2,3,5-Trichlorophenol	933-78-8							
2,3,6-Trichlorophenol	933-75-5							
2,4,5-Trichlorophenol	95-95-4							
2,4,6-Trichlorophenol	88-06-2							
3,4,5-Trichlorophenol	609-19-8							



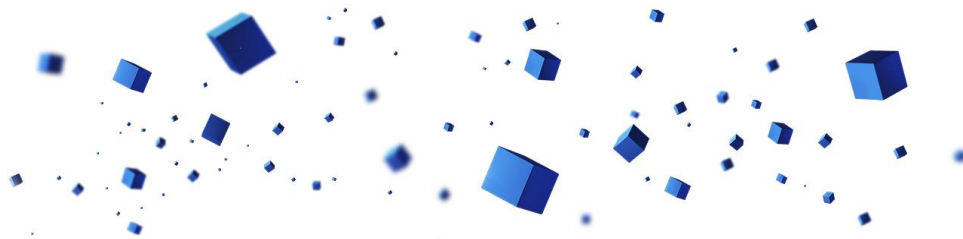
Chlorinated Phenols Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Tetrachlorophenol (TeCP), salts and compounds	25167-83-3	Usage ban			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)
		Traces:			
		0.05	0.5	0.5	
2,3,4,5-Tetrachlorophenol	4901-51-3	Sum of all TeCPs			
2,3,4,6-Tetrachlorophenol	58-90-2				
2,3,5,6-Tetrachlorophenol	935-95-5				
Pentachlorophenol (PCP), salts, esters and compounds	87-86-5	Usage ban			
		Traces:			
		0.05	0.5	0.5	
		Sum of all PCPs			



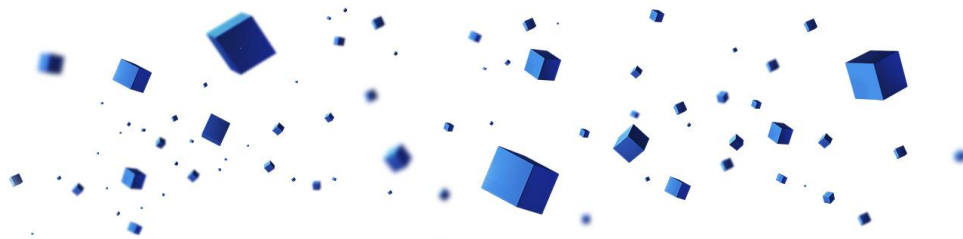
Colorants					
Colorants with carcinogenic potential					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acid Red 26	3761-53-3	Usage ban // DL: 20 for every single substance			DIN 54231 (2005)
Basic Green 4	Several				
Malachit green	10309-95-2				
Malachit green chloride	569-64-2				
Malachit green oxalate	2437-29-8				
Basic Red 9	569-61-9				
Basic Violet 14	632-99-5				
Direct Black 38	1937-37-7				
Direct Blue 6	2602-46-2				
Direct Red 28	573-58-0				
Disperse Blue 1	2475-45-8				
Disperse Orange 11	82-28-0				
Disperse Yellow 3	2832-40-8				
Pigment Black 25	68186-89-0				
Pigment Yellow 34	1344-37-2				
Pigment Yellow 157	68610-24-2				
Pigment Red 104	12656-85-8				
Solvent Yellow 2 (4-Dimethylaminoazobenzene)	60-11-7				



Colorants with allergenic potential					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Disperse Blue 3	2475-46-9	Usage ban // DL: 20 for every single substance			DIN 54231 (2005)
Disperse Blue 7	3179-90-6				
Disperse Blue 26	3860-63-7				
Disperse Blue 35	12222-75-2 56524-77-7				
Disperse Blue 102	12222-97-8				
Disperse Blue 106	12223-01-7				
Disperse Blue 124	61951-51-7				
Disperse Brown 1	23355-64-8				
Disperse Orange 1	2581-69-3				
Disperse Orange 3	730-40-5				
Disperse Orange 37/59/76	12223-33-5 13301-61-6 51811-42-8				
Disperse Red 1	2872-52-8				
Disperse Red 11	2872-48-2				
Disperse Red 17	3179-89-3				
Disperse Yellow 1	119-15-3				
Disperse Yellow 9	6373-73-5				
Disperse Yellow 39	12236-29-2				
Disperse Yellow 49	54824-37-2				
Solvent Yellow 14	842-07-9				

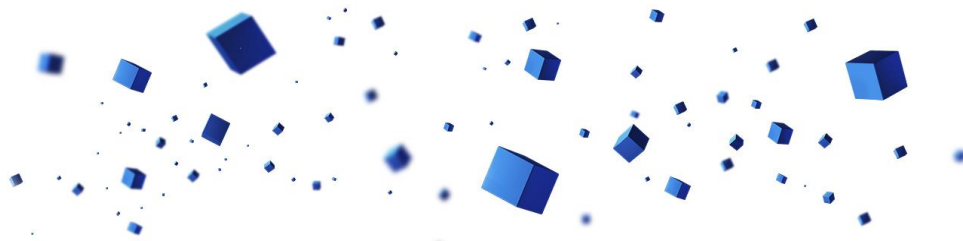


Colorants banned for other reasons					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acid Orange 24	1320-07-6	Usage ban // DL: 20 for every single substance			DIN 54231 (2005)
Acid Violet 49	1694-09-3				
Basic Blue 26	2580-56-5				
Basic Violet 1	8004-87-3				
Basic Violet 3	548-62-9 603-48-5 14426-25-6				
Direct Black 91	6739-62-4				
Direct Blue 76	16143-79-6				
Direct Blue 218	28407-37-6				
Direct Yellow 1	6472-91-9				
Disperse Yellow 23	6250-23-3				
Disperse Orange 149	85136-74-9				
Navy Blue: A mixture of: disodium (6-(4-anisidino)-3-sulfonato-2-(3,5-dinitro-2-oxidophenylazo)-1-naphtholato)(1-(5-chloro-2-oxidophenylazo)-2-naphtholato)chromate(1-),trisodium bis(6-(4-anisidino)-3-sulfonato-2-(3,5- dinitro-2-oxidophenylazo)-1-naphtholato)chromate(1-) Component 1: CAS-No: 118685-33-9 C39H23ClCrN7O12S.2Na   Component 2: C46H30CrN10O20S2.3Na	EC-number: 405-665-4  Component 1: 118685-33-9  Component 2: Not allocated				
Solvent Blue 4	6786-83-0				



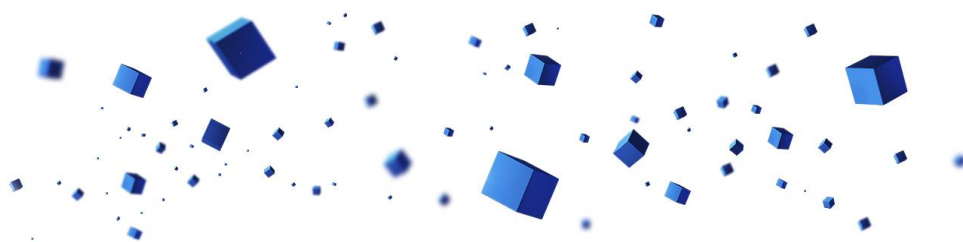
Colorants which can cleave in carcinogenic amines					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Colorants which can cleave in carcinogenic amines (Single substances listed in Annex I)	Several	Usage ban // DL: 20 for every single substance			DIN 54231 (2005)

Dioxins and Furans					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Group 1 (Single substances listed in Annex I)	Several	Usage ban // Sum of all traces group 1: 1.0 [µg/kg]			EPA 8290A
Group 2 (Single substances listed in Annex I)	Several	Usage ban // Sum of all traces group 1 and 2: 5.0 [µg/kg]			
Group 3 (Single substances listed in Annex I)	Several	Usage ban // Sum of all traces group 1, 2 and 3: 100 [µg/kg]			
Group 4 (Single substances listed in Annex I)	Several	Usage ban // Sum of all traces group 4: 1.0 [µg/kg]			
Group 5 (Single substances listed in Annex I)	Several	Usage ban // Sum of all traces group 4 and 5: 5.0 [µg/kg]			

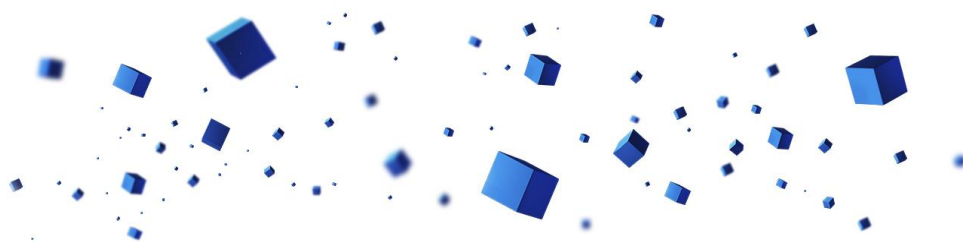


Flame Retardants Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
2,2-Bis(bromomethyl)-1,3-propanediol (BBMP)	3296-90-0	Usage ban // DL: 5.0			ISO 17881-1 (2016)
Bis(2,3-dibromopropyl)phosphate (BDBPP)	5412-25-9	Usage ban // DL: 5.0			ISO 17881-2 (2016)
Chlorinated paraffins, all chain lengths	Several	Usage ban			ISO 18219 (2015)
Paraffin wax, chlorinated	63449-39-8	For all materials excluding leather: DL: 5.0			
Paraffin, C10-C13, chlorinated (SCCP)	85535-84-8	For leather (for every single substance) Traces: 100			
Paraffin, C14-C17, chlorinated (MCCP)	85535-85-9				
Paraffin, C18-C28, chlorinated (LCCP)	85535-86-0				
Hexabromocyclododecan (HBCDD)	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	Usage ban // DL: 5.0			ISO 17881-1 (2016)
Polybrominated diphenyl ethers (PBDE)	Several	Usage ban // DL: 5.0 for every single substance			ISO 17881-1 (2016)
Tetrabromodiphenyl ether (TetraBDE)	40088-47-9				
Pentabromodiphenyl ether (PentaBDE)	32534-81-9				
Hexabromodiphenyl ether (HexaBDE)	36483-60-0				
Heptabromodiphenyl ether (HeptaBDE)	68928-80-3				
Octabromodiphenyl ether (OctaBDE)	32536-52-0				
Nonabromodiphenyl ether (NonaBDE)	63936-56-1				
Decabromodiphenyl ether (DecaBDE)	1163-19-5				
Tetrabromobisphenol A (TBBP A)	79-94-7	Usage ban // DL: 5.0			ISO 17881-1 (2016)
Tetrabromobisphenol A bis(2,3-dibromopropylether)	21850-44-2	Usage ban // DL: 5.0			
Tri(aziridin-1-yl)phosphine oxide Triethylenephosphoramide (TEPA)	545-55-1	Usage ban // DL: 5.0			ISO 17881-2 (2016)

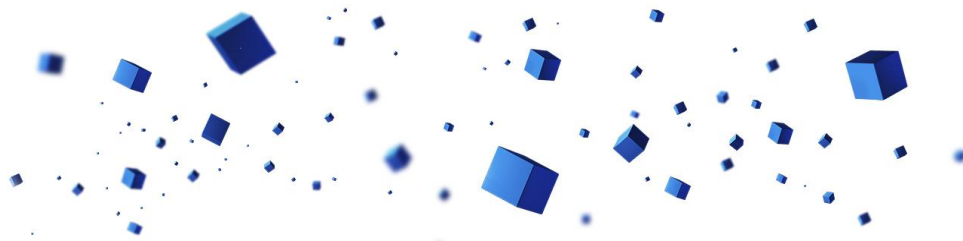




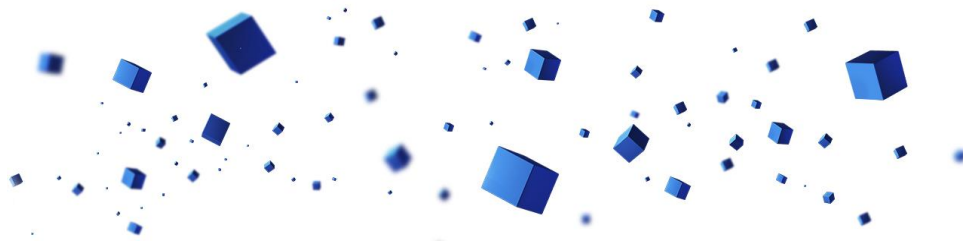
Flame Retardants Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Trimethyl phosphate	512-56-1	Usage ban // DL: 5.0			ISO 17881-2 (2016)
Tri-o-cresyl phosphate	78-30-8	Usage ban // DL: 5.0			
Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	Usage ban // DL: 5.0			
Tris-(2-chloro-1-methylethyl)phosphate (TCPP)	13674-84-5	Usage ban // DL: 5.0			
Tris-[2-chloro-1-(chloromethyl)ethyl]phosphate (TDCP or TDCPP)	13674-87-8	Usage ban // DL: 5.0			
Tris(2,3-dibromopropyl) phosphate (TRIS)	126-72-7	Usage ban // DL: 5.0			
Trixylyl phosphate (TXP)	25155-23-1	Usage ban // DL: 5.0			



Fluorinated Substances Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
PFSA Chemicals*	Several				
Perfluoroalkylsulfonates F(CF <sub>2</sub> ) <sub>n</sub> SO <sub>3</sub> <sup>-</sup> [n ≥ 5]	Several	Usage ban // DL: 20 [µg/kg]			CEN/TS 15968 (2014)
Perfluorohexane sulfonic acid / Perfluorohexane sulfonate (PFHxS)	355-46-4 / 432-50-7	Usage ban // DL: 20 [µg/kg]			
Perfluorooctane sulfonic acid / Perfluorooctane sulfonate (PFOS)	1763-23-1	Usage ban // DL: 1.0 [µg/m²]			
Perfluoroalkylsulfonamides F(CF <sub>2</sub> ) <sub>n</sub> SO <sub>2</sub> NH <sub>2</sub> [n ≥ 5]	Several	Usage ban // DL: 20 [µg/kg]			
Perfluoroalkylsulfonamidoethanols F(CF <sub>2</sub> ) <sub>n</sub> SO <sub>2</sub> N(R)CH <sub>2</sub> CH <sub>2</sub> OH <sub>2</sub> [n ≥ 5, R = H, -CH <sub>3</sub> , - CH <sub>2</sub> CH <sub>3</sub> ]	Several	Usage ban // DL: 20 [µg/kg]			
Perfluoroalkylsulfonamidoethyl (meth)acrylates F(CF <sub>2</sub> ) <sub>n</sub> SO <sub>2</sub> N(R)CH <sub>2</sub> CH <sub>2</sub> OC(O)CH(R)=CH <sub>2</sub> [n ≥ 5, R = H, -CH <sub>3</sub> , -CH <sub>2</sub> CH <sub>3</sub> ]	Several	Usage ban // DL: 20 [µg/kg]			
PFBS Chemicals	Several				
Perfluorobutane sulfonic acid / Perfluorobutanesulfonates (PFBS) F(CF <sub>2</sub> ) <sub>4</sub> SO <sub>3</sub> <sup>-</sup>	375-73-5 / 29420-43-3	1.0			CEN/TS 15968 (2014)
		Monitoring			
Perfluorobutanesulfonamide F(CF <sub>2</sub> ) <sub>4</sub> SO <sub>2</sub> NH <sub>2</sub>		50			
		Monitoring			
Perfluorobutanesulfonamidoethanols F(CF <sub>2</sub> ) <sub>4</sub> SO <sub>2</sub> N(R)CH <sub>2</sub> CH <sub>2</sub> OH <sub>2</sub> [R = H, -CH <sub>3</sub> , -CH <sub>2</sub> CH <sub>3</sub> ]	Several	15			
		Monitoring			
Perfluorobutanesulfonamidoethyl (meth)acrylates F(CF <sub>2</sub> ) <sub>4</sub> SO <sub>2</sub> N(R)CH <sub>2</sub> CH <sub>2</sub> OC(O)CH(R)=CH <sub>2</sub> [R = H, -CH <sub>3</sub> , -CH <sub>2</sub> CH <sub>3</sub> ]	Several	15			
		Monitoring			
Fluorotelomer alcohols (FTOHs) F(CF <sub>2</sub> ) <sub>n</sub> CH <sub>2</sub> CH <sub>2</sub> OH (not included in the ‘PFOA- related substances’ group)	Several				
6:2 FTOH, Perfluorohexylethanol	647-42-7	Monitoring			Extraction with MTBE // GC-MS
Fluorotelomer Olefins (FTOs) (not included in the ‘PFOA-related substances’ group)	Several				
Perfluorohexylethene	25291-17-2	Monitoring			ASE with Ethyl acetate // GC-MS or LC-MS



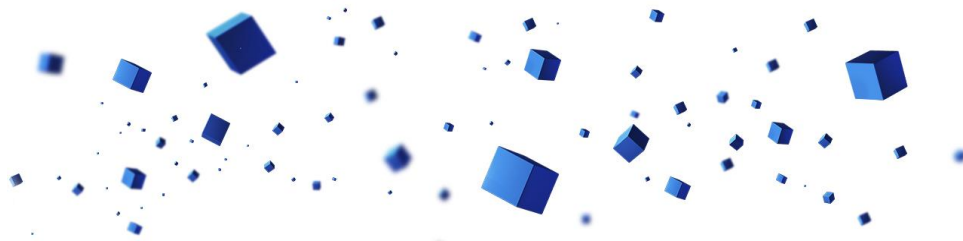
Fluorinated Substances Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Fluorotelomer (Meth)Acrylates (not included in the 'PFOA-related substances' group)	Several				
Perfluorohexylethyl acrylate or methacrylate	Several	Monitoring			Extraction with MTBE // GC-MS
Perfluorocarboxylic acid and salts (PFCA)	Several	Sum of all 0.1			
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Usage ban // Traces: 25 [µg/kg] Valid from July 2019			CEN/TS 15968 (2014)
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 or Several	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Henicosaflluoroundecanoic acid	2058-94-8	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Tricosaflluorododecanoic acid	307-55-1	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Pentacosaflluorotridecanoic acid	72629-94-8	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Heptacosaflluorotetradecanoic acid	376-06-7	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Perfluorobutanoic acid (PFBA)	375-22-4	Usage ban // Traces: 0.05 Monitoring			
Perfluorohexanoic acid (PFHxA)	307-24-4	Usage ban // Traces: 0.05 Monitoring			
Perfluoroheptanoic acid (PFHpA)	375-85-9	Usage ban // Traces: 0.05 / Monitoring Valid from July 2019			
Perfluorooctanoic acid (PFOA)**	335-67-1	Usage ban // Traces: 25 [µg/kg]			
Perfluorononanoic acid (PFNA)**	375-95-1	Usage ban // Traces: 0.05 Monitoring			



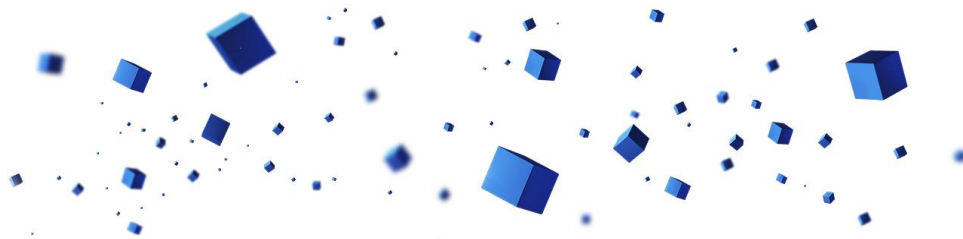
Fluorinated Substances Part 3					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
PFOA-related substances	Several				
Heptadecafluoro-1-iodooctane**	507-63-1	Usage ban // Traces: 1000 [µg/kg] (for the sum of PFOA-related substances)			CEN/TS 15968 (2014)
1H,1H,2H,2H-Perfluorodecyl iodide**	2043-53-0				CEN/TS 15968 (2014)
8:2 FTOH, Perfluorooctylethanol**	678-39-7				Extraction with MTBE // GC-MS
Perfluorooctylethene**	21652-58-4				ASE with Ethyl acetate // GC-MS or LC-MS
Perfluorooctylethyl acrylate or methacrylate**	Several				Extraction with MTBE // GC-MS
Perfluoroisobutylene	382-21-8	0.1			Headspace GC-MS
Tetrafluoroethylene	116-14-3	1.0			Headspace GC-MS

\* Ban on long-chain compounds in manufacturing based on long-chain electrofluorination chemistry (C6 and higher).

\*\* Phase-out of long-chain compounds in manufacturing based on long-chain telomer chemistry (C8 and higher) until end of 2014.

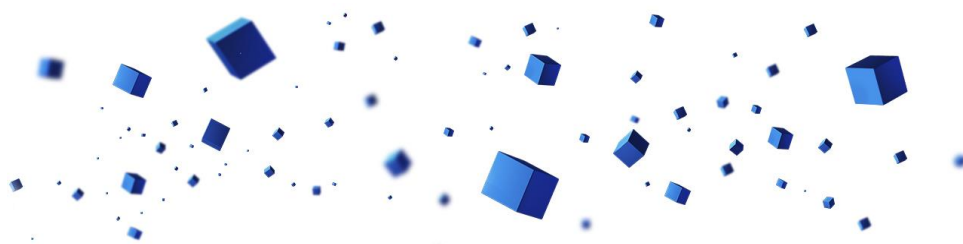


Glycols					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Bis(2-methoxyethyl)-ether	111-96-6	Usage ban // DL: 5.0			Textile: Extraction with MeOH // GC-MS  Plastic: 2-Step extraction with THF and MeOH // GC-MS
2-Butoxyethanol	111-76-2	50	100	100	
2-Butoxyethylacetate	112-07-2	10	100	100	
2-Ethoxyethanol	110-80-5	Usage ban // DL: 5.0			
2-Ethoxyethyl acetate	111-15-9	Usage ban // DL: 5.0			
Ethylene glycol dimethyl ether	110-71-4	Usage ban // DL: 5.0			
2-Methoxyethanol	109-86-4	Usage ban // DL: 5.0			
2-Methoxyethylacetate	110-49-6	Usage ban // DL: 5.0			
2-(2-Methoxyethoxy)-ethanol	111-77-3	1.0	10	100	
1-Methoxy-2-propanol	107-98-2	50	200	200	
2-Methoxy-1-propanol	1589-47-5	Usage ban // DL: 5.0			
2-Methoxypropylacetate	70657-70-4	Usage ban // DL: 5.0			
Triethylene glycol dimethyl ether	112-49-2	Usage ban // DL: 5.0			

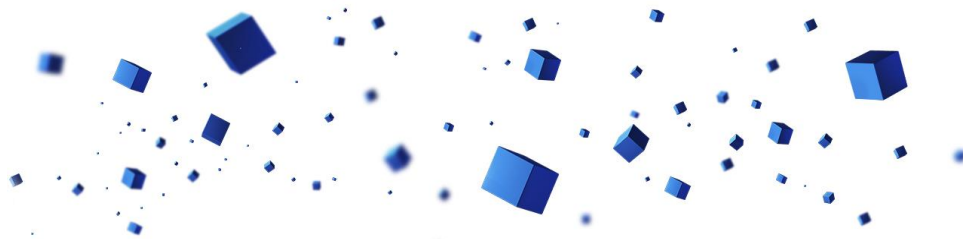


Greenhouse Gases, fluorinated					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Greenhouse gases, fluorinated (Single substances listed in Annex I)	Several	Usage ban for direct use in manufacturing of articles // DL: 0.1 for every single substance			Headspace GC-MS

Halogenated Biphenyls, halogenated Terphenyls and halogenated Naphthalenes					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Polybrominated biphenyls (PBBs)	59536-65-1	Usage ban // DL: 5.0			ISO 17881-1 (2016)
Hexabromo biphenyl	36355-01-8	Usage ban // DL: 5.0			
Polychlorinated biphenyls (PCBs)	1336-36-3	Usage ban // DL: 1.0			
Polychlorinated terphenyls (PCTs)	61788-33-8	Usage ban // DL: 1.0			
Polybrominated terphenyls (PBTs)	Several	Usage ban // DL: 1.0			
Polychlorinated naphthalenes (PCNs)	Several				
Monochloronaphthalene	25586-43-0	Usage ban // DL: 1.0 for every single substance			
Dichloronaphthalene	28699-88-9				
Trichloronaphthalene	1321-65-9				
Tetrachloronaphthalene	1335-88-2				
Pentachloronaphthalene	1321-64-8				
Hexachloronaphthalene	1335-87-1				
Heptachloronaphthalene	32241-08-0				
Octachloronaphthalene	2234-13-1				
Polybrominated naphthalenes (PBNs)	Several	Usage ban // DL: 1.0			

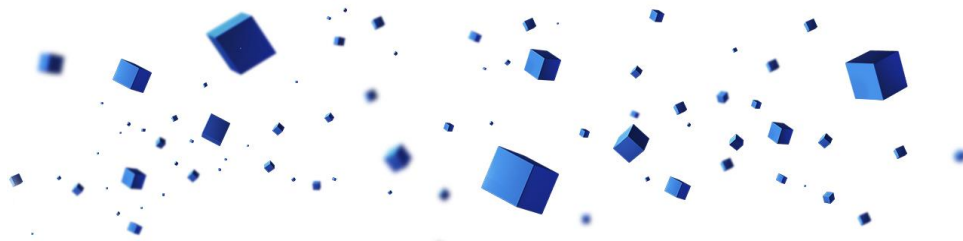


Halogenated Diarylalkanes					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Halogenated diarylalkanes	Several	Usage ban // DL: 1.0 for every single substance			Extraction following IEC 62321-6 (2015) // GC-MS
Monomethyl-dibromo-diphenyl methane	99688-47-8				
Monomethyl-dichloro-diphenyl methane	81161-70-8				
Monomethyl-tetrachloro-diphenyl methane	76253-60-6				



Isocyanates					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Isocyanates	Several	Free content applies to sum of all isocyanates:			EN 13130-8 (2004)
1,3-bis(isocyanatomethyl)benzene (XDI)	3634-83-1				
Diphenylmethane-4,4-di-isocyanate (MDI)	101-68-8				
Diphenylmethane-2,2-di-isocyanate (2,2-MDI)	2536-05-2				
Diphenylmethane-2,4-di-isocyanate (2,4-MDI)	5873-54-1				
MDI mixed isomers	26447-40-5				
Technical grade MDI	9016-87-9				
Hexamethylene diisocyanate (HMDI)	822-06-0				
Isophorone diisocyanate (IPDI)	4098-71-9	1.0	1.0	1.0	
Tetramethylxylene diisocyanate (TMXDI)	2778-42-9	PU coating and plastics: Monitoring			
Toluene-2,4-diisocyanate (2,4-TDI)	584-84-9				
Toluene-2,6-diisocyanate (2,6-TDI)	91-08-7				
2,4-/2,6-TDI mixture	26471-62-5				
2,6-Diisopropylphenyl-isocyanate	28178-42-9				
4,4-Methylendicyclohexyl-di-isocyanate (4,4-MDI)	5124-30-1				
Napthylene-1,5-di-isocyanate (1,5-NDI)	3173-72-6				
Phenylisocyanate	103-71-9				

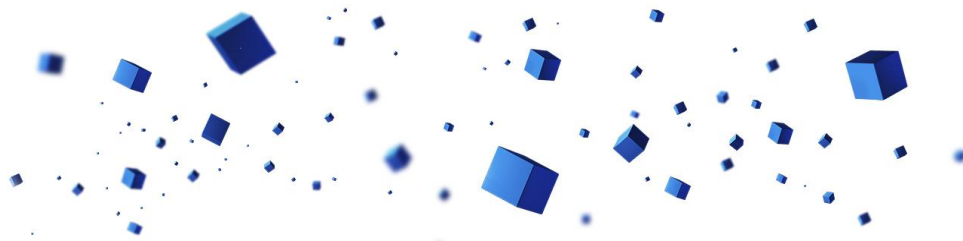




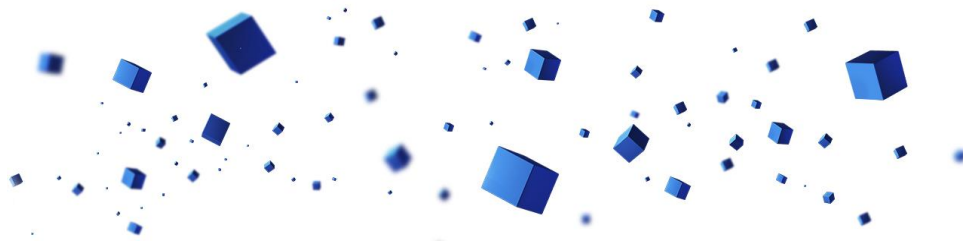
Metals Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Antimony	7440-36-0	Usage as flame retardant: bluesign® criteria for flame retardants have to be followed			
		In other cases:			Textiles: DIN EN 16711-1 (2016) (total content)
		Polyester raw fiber Total content: 260			
		For textiles and leather Extractable content:			Textiles: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		5	10	10	
		For metal parts and non-metal parts others than textiles and leather: Extractable content:			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)
		60			
Arsenic	7440-38-2	Usage ban Traces Extractable content: 0.2 Traces Total content: 10			Textiles and others: DIN EN 16711-1 (2016) (total content) DIN EN 16711-2 (2016) (acidic sweat solution)  Leather: ISO 17072-1 (2011) (acidic sweat solution) ISO 17072-2 (2011) (total content)
Barium	7440-39-3	For textiles Total content: 100			DIN EN 16711-1 (2016) (total content)
		For metal parts and non-metal parts others than textiles Extractable content: 1000			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)



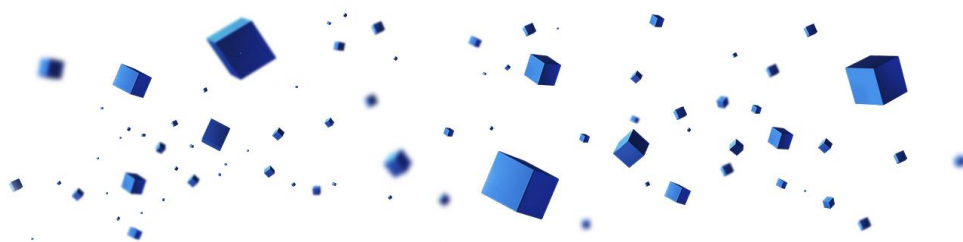
Metals Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Cadmium	7440-43-9	Usage ban			
		For non-metal parts (textiles, leather and others)  Traces Extractable content: 0.1  Traces Total content: 40			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)  Textiles and others: DIN EN 16711-1 (2016) (total content) Leather: ISO 17072-2 (2011) (total content)
		For metal parts Traces Total content: 40			DIN EN 16711-1 (2016) (total content)
Chromium	7440-47-3	For textiles Extractable content: 0.5			DIN EN 16711-2 (2016) (acidic sweat solution)
		For textiles dyed with chromium containing metal complex dyes Extractable content:			
		1.0	2.0	2.0	
		For leather: No regulation			-
		For metal parts and non-metal parts others than textiles and leather: Extractable content: 60  If products are covered with a metal layer, including a chromium layer, coating must be constantly in good condition			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)



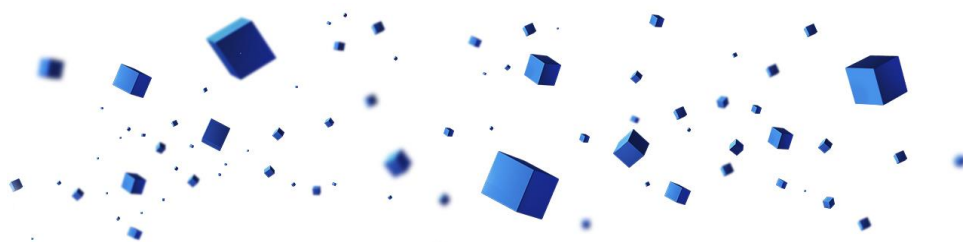
Metals Part 3					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Chromium (VI)	18540-29-9	Usage ban			
		For metal parts and non-metal parts others than leather Extractable content: DL: 0.5			EN ISO 17075-1 or -2 (2017)
		For leather Extractable content: DL: 3.0			DIN EN ISO 4044 (2017) // EN ISO 17075-1 (2017-) or EN ISO 17075-2 (2017-05)
Cobalt	7440-48-4	For textiles and leather Extractable content: 1.0			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		For textiles and leather dyed with cobalt containing metal complex dyes Extractable content:			
		1.0	4.0	4.0	
		For metal parts and non-metal parts others than textiles and leather Extractable content:			
		1.0	4.0	4.0	
Copper	7440-50-8	For textiles and leather (including Cu metal complex dyed materials) Extractable content:			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		25	50	50	
		For metal parts and non-metal parts others than textiles and leather:			-
		No regulation			



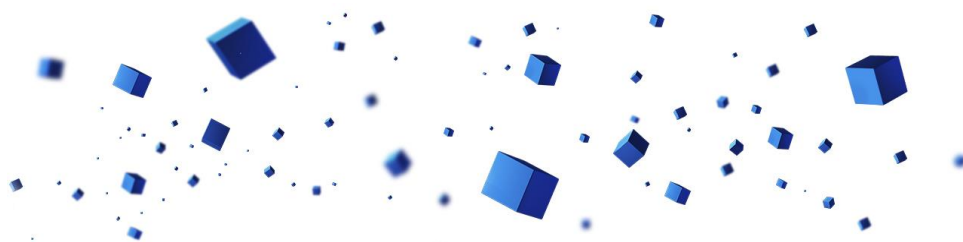
Metals Part 4					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Lead	7439-92-1	Usage ban			
		For textiles, plastics and leather Traces Extractable content:			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		0.2	1.0	1.0	
		Traces Total content: 40			Textiles and others: DIN EN 16711-1 (2016) (total content) Leather: ISO 17072-2 (2011) (total content)
		For metal parts Traces Total content: 90			DIN EN 16711-1 (2016) (total content)
Mercury	7439-97-6	Usage ban			
		For non-metal parts (textiles, leather and others) Traces Extractable content: 0.02			Textiles and others: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		For metal parts Traces Extractable content: 60			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 12846 (2012)
Nickel	7440-02-0	For textiles and leather Extractable content: 1.0			Textiles: DIN EN 16711-2 (2016) (acidic sweat solution) Leather: ISO 17072-1 (2011) (acidic sweat solution)
		For textiles and leather dyed with nickel containing metal complex dyes Extractable content:			
		1.0	4.0	4.0	
		For metal parts and non-metal parts others than textiles and leather: Usage ban for A and B: 0.5 [µg/cm²/week]			Release EN 12472 (2005)+A1(2009) // EN 1811 (2011)+A1(2015)



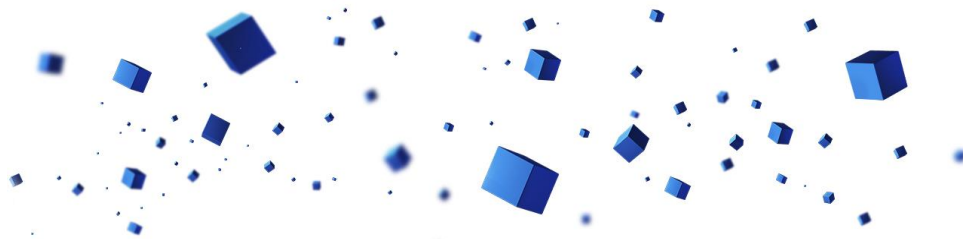
Metals Part 5					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Selenium	7782-49-2	500			EN 71-3 (2013) (acidic solution simulating gastric juices) // ISO 17294-2 (2016) or DIN EN ISO 11885 (2009)
Silver	7440-22-4	For textiles and leather: If used as antimicrobial active compound relevant bluesign® criteria have to be followed			-
		For metal parts and non-metal parts other than textiles and leather: No regulation			-



Monomers Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acrylamide	79-06-1	Usage ban // DL: 1.0 Monitoring			Textile: Extraction with MeOH // LC-MS  Plastic: 2-Step extraction with THF and MeOH // LC-MS
Acrylates	Several				Headspace GC-MS (for acrylates)  Extraction with MeOH // LC-MS (for acids)
Acrylic acid	79-10-7	5	5	5	
Butyl acrylate	141-32-2	10	50	100	
tert-Butylacrylate	1663-39-4	10	10	100	
Butyl methacrylate	97-88-1	10	10	100	
Ethyl acrylate	140-88-5	1.0	1.0	1.0	
2-Ethylhexyl acrylate	103-11-7	50	50	100	
Ethyl methacrylate	97-63-2	10	10	100	
2-Hydroxyethyl methacrylate	868-77-9	50	50	100	
Methacrylic acid	79-41-4	10	50	100	
Methyl acrylate	96-33-3	5	20	20	
Methyl methacrylate	80-62-6	10	10	100	
Octadecyl acrylate	4813-57-4	50	50	100	
2-Phenoxyethyl acrylate	48145-04-6	50	50	100	
Acrylonitrile	107-13-1	Usage ban // DL: 1.0			EN 13130-3 (2004)
2-Chlorobuta-1,3-diene (Chloroprene)	126-99-8	Usage ban // DL: 1.0 Monitoring			BVL B 80.68-1

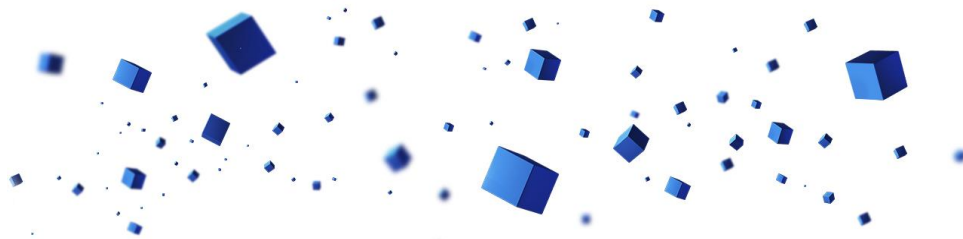


Monomers Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
4-Cyanocyclohexene	100-45-8	50	50	50	Headspace GC-MS
		Monitoring			
Epichlorohydrin	106-89-8	Usage ban // DL: 1.0			CEN/TS 13130-20 (2005)
Methacrylamide	79-39-0	1.0	10	50	Textile: 2-Step extraction with Acetone/Hexane and MeOH // GC-MS or LC-MS  Plastic: 3-Step extraction with THF, Acetone/Hexane (ASE or Soxhlet) and MeOH // GC-MS or LC-MS
N-Methylolacrylamide	924-42-5	1.0	10	10	Textile: 2-Step extraction with Acetone/Hexane and MeOH // GC-MS or LC-MS  Plastic: 3-Step extraction with THF, Acetone/Hexane (ASE or Soxhlet) and MeOH // GC-MS or LC-MS
N-Vinyl-2-pyrrolidone	88-12-0	1.0	1.0	1.0	Extraction with MeOH // GC-MS or Headspace GC-MS
Styrene	100-42-5	10	10	100	Headspace GC-MS
Vinyl acetate	108-05-4	10	50	50	Headspace GC-MS
Vinyl chloride	75-01-4	Usage ban // DL: 0.1			ISO 6401 (2008)
Vinylidene chloride (1,1-Dichloroethylene)	75-35-4	10	10	10	EN 13130-6 (2004) Headspace GC-ECD, FID

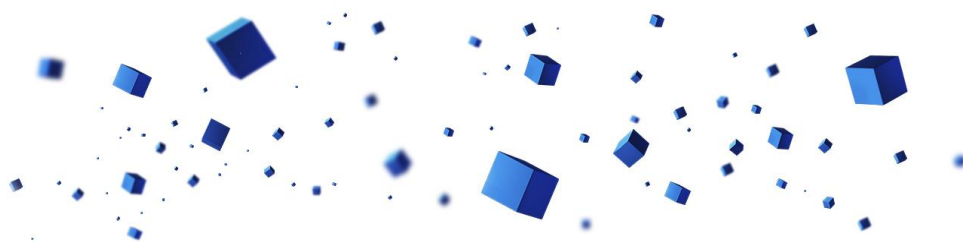


Nitrosamines (as substance and as reaction product from secondary amines for example in elastomers or rubbers)					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Nitrosamines	Several	Usage ban// DL: 0.5 for every single listed substance			GB/T 24513 (2009) or prEN 19577 (2017)
N-Nitroso-di-n-butylamine	924-16-3				
N-Nitroso-di-ethanolamine	1116-54-7				
N-Nitroso-di-ethylamine	55-18-5				
N-Nitroso-di-isopropylamine	601-77-4				
N-Nitroso-di-methylamine	62-75-9				
N-Nitroso-di-benzylamine	5336-53-8				
N-Nitroso-di-isobutylamine	997-95-5				
N-Nitroso-di-isononylamine	1207995-62-7				
N-Nitroso-di-n-propylamine	621-64-7				
N-Nitroso-ethylphenylamine	612-64-6				
N-Nitroso-methylphenylamine	614-00-6				
N-Nitroso-morpholine	59-89-2				
N-Nitroso-piperidine	100-75-4				
N-Nitroso-pyrrolidine	930-55-2				

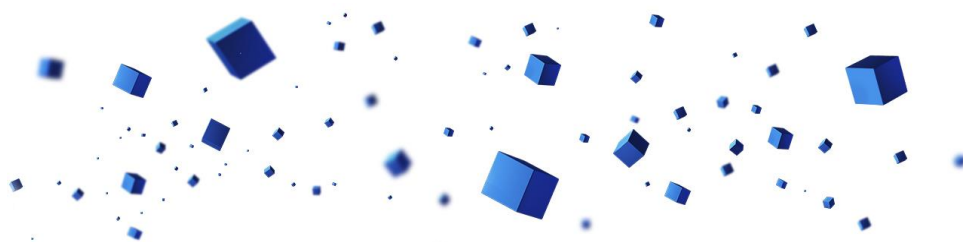




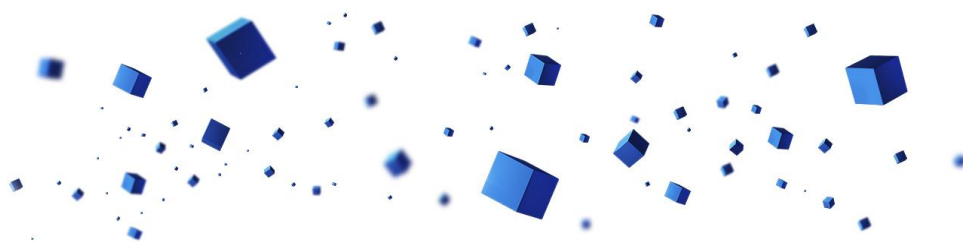
Other Chemical Substances Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acetic acid	64-19-7	100	1000	1000	Extraction with MeOH // LC-MS
Acetone oxime	127-06-0	Monitoring			Extraction with MeOH // GC-MS
Acetophenone	98-86-2	20	20	20	Extraction with MeOH // GC-MS
Alkyl naphthalenes; all derivatives	Several	Usage ban // DL: 1.0			Extraction following IEC 62321-6 (2015) // GC-MS
Ammonia	7664-41-7	10	50	50	Extraction with deionized water // IC
Azobenzene	103-33-3	Usage ban // DL: 1.0 Monitoring			Extraction with MeOH // GC-MS or LC-MS
Benzyl alcohol	100-51-6	10	100	100	Extraction with Acetone // GC- MS
Benzyl chloride	100-44-7	Usage ban // DL: 1.0			Extraction with DCM or Headspace GC-MS
Biphenyl	92-52-4	100	100	500	Extraction following IEC 62321-6 (2015) // GC-MS
Bisphenol A	80-05-7	Usage ban for textile and leather // DL: 1.0  Others: 50			Extraction with MeOH // ISO 18857-2 (2009)



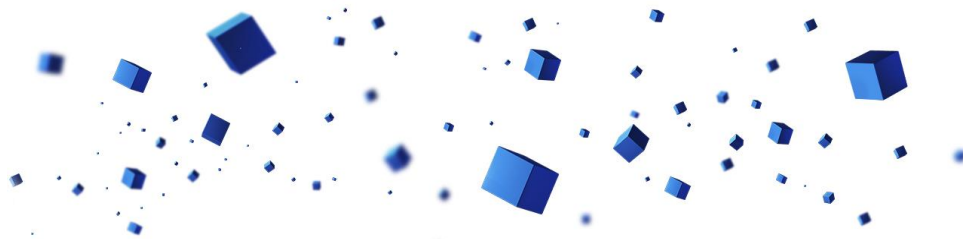
Other Chemical Substances Part 2						
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method	
		A	B	C		
Boric acid and derivatives	Several	Usage ban Traces: 100 for every single substance			Indirect testing via Boron (DL for Boron: 10 mg/kg) // ICP-OES or ICP-MS	
Borate, zinc salt	1332-07-6					
Boric acid	10043-35-3 // 11113-50-1					
Diboron trioxide	1303-86-2					
Disodium tetraborate	1303-96-4 (decahydrate) 1330-43-4 (anhydrous) 12179-04-3 (pentahydrate)					
Disodium octaborate anhydrous	12008-41-2 12280-03-4					
Orthoboric acid sodium salt	13840-56-7					
Perboric acid, sodium salt	11138-47-9 10332-33-9 12040-72-1 37244-98-7					
Sodium perborate	15120-21-5					
Sodium perborate, anhydrous	7632-04-4					
Tetraboron disodium heptaoxide, hydrate	12267-73-1					
2-Butanone oxime	96-29-7	1.0	10	100	Extraction with MeOH // GC-MS	
4-tert-Butyltoluene	98-51-1	Usage ban // DL: 1.0			Extraction with MeOH // GC-MS	
2-Butyne-1,4-diol	110-65-6	1.0			Extraction with MeOH // GC-MS	
		Monitoring				
ε-Caprolactam	105-60-2	100	1000	1000	Extraction with MeOH // LC-MS	
		Not in force for PA 6 containing polymers (fibers, hot melt etc.)				



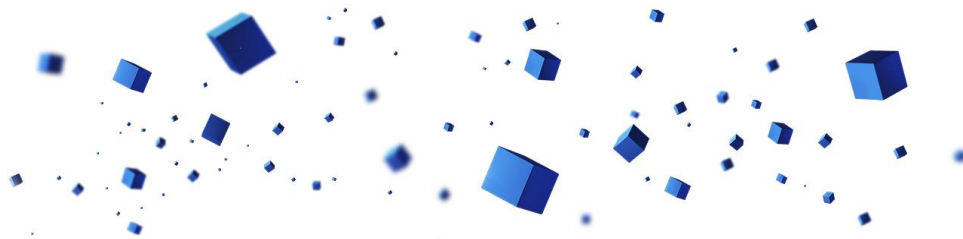
Other Chemical Substances Part 3					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
2-Chloroethanol	107-07-3	1.0	10	50	Extraction with MeOH or Headspace GC-MS
Colophony (Rosin)	8050-09-7	Usage ban // DL: 1.0 (abietic acid or hydroabietic acid)			Extraction with MTBE, derivatisation // GC-MS
Cresol, all isomers	1319-77-3	Usage ban // DL: 10 for every single listed substance			Extraction with KOH // § 64 LFGB B 82.02-8 (2001) or DIN EN ISO 17070 (2015)
m-Cresol	108-39-4				
o-Cresol	95-48-7				
p-Cresol	106-44-5				
Cyclohexanol	108-93-0	10			Headspace GC-MS
Cyclohexanone	108-94-1	10			Headspace GC-MS
D4-Siloxane (Octamethylcyclotetrasiloxane)	556-67-2	Usage ban // DL: 10			ASE with Acetone/Hexane // GC- MS
D5-Siloxane (Decamethylcyclopentasiloxane)	541-02-6	Usage ban // DL: 10 Monitoring			
D6-Siloxane (Dodecamethylcyclohexasiloxane)	540-97-6	Usage ban // DL: 10 Monitoring			
1,3-Dichloro-2-propanol	96-23-1	Usage ban // DL: 1.0			Headspace GC-MS
Dimethylfumarate	624-49-7	Usage ban // DL: 0.1			ISO/TS 16186 (2012) // GC-MS
3,5-Dimethylpyrazole	67-51-6	Monitoring			Extraction with MeOH // GC-MS
Dimethyl sulfate	77-78-1	Usage ban // DL: 1.0			Headspace GC-MS
2,4-Dinitrotoluene	121-14-2	Usage ban // DL: 10			Extraction with Toluene // GC-MS
1,4-Dioxane	123-91-1	1.0	5	10	Headspace GC-MS
		Monitoring			
Ethylbenzene	100-41-4	500	500	1000	Headspace GC-MS
Ethyleneimine	151-56-4	Usage ban // DL: 1.0			Headspace GC-MS
2-Ethylhexanol	104-76-7	50	200	500	Headspace GC-MS



Other Chemical Substances Part 4					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Formaldehyde oligomeric reaction product with aniline (polymeric MDA, MDA technical grade)	25214-70-4	Usage ban // DL: 20			Indirect testing via Diaminodiphenylmethane // LC-MS
Formamide	75-12-7	Usage ban Traces:			Extraction with MeOH* // GC-MS *cut the sample into small pieces (2x2mm)
		50	50	100	
Formic acid	64-18-6	10	10	100	Extraction with MeOH // LC-MS
Hydrazine, its salts and hydrates	Several	Usage ban			
Hydrazine	302-01-2	Traces: 1.0			Extraction with THF/Acetone // GC-MS
Hydrofluoric acid	7664-39-3	1.0			Extraction with water and measurement of fluorine or fluoride // GC-MS or IC
4-Hydroxy-4-methylpentane-2-one	123-42-2	20	100	100	Headspace GC-MS
Isoquinoline	119-65-3	Usage ban // Traces: 50  Valid from July 2021			Extraction with Methanol or THF // LC-MS/MS or LC-DAD
Mercaptobenzothiazole and salts	149-30-4	Usage ban for A in natural and synthetic rubber (DL: 5.0); B and C: 200			DIN EN ISO 105-E04 (2013) (acidic sweat solution) // LC-MS
Methanol	67-56-1	10			Headspace GC-MS
2-Methylaziridine (Propylenimine)	75-55-8	Usage ban // DL: 1.0			Headspace GC-MS
Methyl chloride	74-87-3	1.0	1.0	1.0	Headspace GC-MS
N-Cyclohexyl-2-pyrrolidone	6837-24-7	20	200	200	Extraction with MeOH // GC-MS
1-Nitropropane/2-Nitropropane	Several				Headspace GC-MS
1-Nitropropane	108-03-2	1.0			
2-Nitropropane	79-46-9	Usage ban // DL: 1.0			
Phenol	108-95-2	10	50	100	Extraction with MeOH // GC-MS or LC-MS
4-Phenylcyclohexene	4994-16-5	10	10	50	Extraction with MeOH or Headspace GC-MS

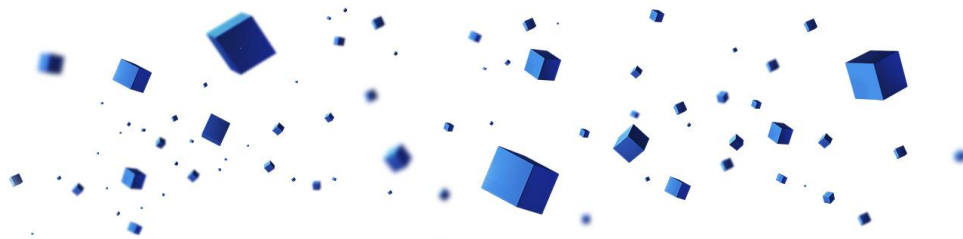


Other Chemical Substances Part 5					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
2-Phenyl-2-propanol	617-94-7	1.0	10	10	Extraction with MeOH // GC-MS
Potassium bromate	7758-01-2	Usage ban // DL: 10			Extraction with Potassium carbonate solution // IC
Quinoline	91-22-5	Usage ban // Traces: 50			Extraction with Methanol or THF // LC-MS/MS or LC-DAD
Sodium bromate	7789-38-0	Usage ban // DL: 10			Extraction with Potassium carbonate solution // IC
Terpene hydrocarbons		Usage ban // DL: 1.0 for every single listed substance			Headspace GC-MS
D-Limonene	5989-27-5				
DL-Limonene	138-86-3				
L-Limonene	5989-54-8				
Thiourea	62-56-6	Usage ban // DL: 5			Extraction with MeOH // LC-MS
Tri-iso-butylphosphate	126-71-6	10	50	50	Extraction following IEC 62321-6 (2015) // GC-MS
Tri-n-butylphosphate	126-73-8	10	50	50	Extraction following IEC 62321-6 (2015) // GC-MS
4-Vinylcyclohexene	100-40-3	1.0			Headspace GC-MS

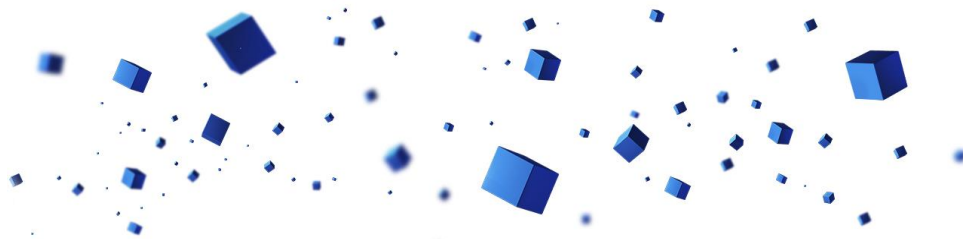


Ozone Depleting Substances					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Ozone depleting substances (CFCs) class I (Single substances listed in Annex I)	Several	Usage ban for direct use in manufacturing of articles // DL: 0.1 for every single substance			Headspace GC-MS
Ozone depleting substances (CFCs) class II (Single substances listed in Annex I)	Several				

Pesticides					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Pesticides (Single substances listed in Annex I)	Several	Usage ban // 0.5 mg/kg limit value applies to total sum of all pesticides			ASE or Soxhlet Extraction with Acetone/Hexane // GC-MS or LC-MC

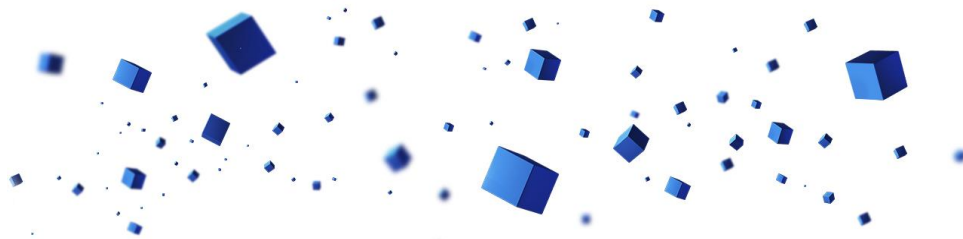


Plasticizers Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Di-(2-ethylhexyl) adipate (DEHA)	103-23-1	Monitoring			ISO 14389 (2014)
Phthalic acid esters	Several	Usage ban // Traces: 50 for every single substance			ISO 14389 (2014)
1,2-Benzenedicarboxylic acid, di-C <sub>6-8</sub> -branched alkyl esters, C <sub>7</sub> -rich (DIHP)	71888-89-6				
1,2-Benzenedicarboxylic acid, benzyl C <sub>7-9</sub> - branched and linear alkyl esters	68515-40-2				
1,2-Benzenedicarboxylic acid, di-C <sub>7-11</sub> -branched and linear alkyl esters (DHNUP)	68515-42-4				
1,2-Benzenedicarboxylic acid, dipentyl ester, branched and linear	84777-06-0				
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4				
1,2-Benzenedicarboxylic acid, di-C <sub>6-10</sub> -alkyl esters	68515-51-5				
1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters	68648-93-1				
Bis-(2-methoxyethyl) phthalate (DMEP)	117-82-8				
Butylbenzyl phthalate (BBP)	85-68-7				
Dimethyl phthalate (DMP)	131-11-3				
Diethyl phthalate (DEP)	84-66-2				
Dibutyl phthalate (DBP)	84-74-2				
Dinonyl phthalate (DNP)	84-76-4				
Diethylhexyl phthalate (DEHP)	117-81-7				
Diisobutyl phthalate (DIBP)	84-69-5				
Diisopentyl phthalate (DIPP)	605-50-5				
Diisohexyl phthalate (DIHxP)	71850-09-4				
Diisooctyl phthalate (DIOP)	27554-26-3				
Diisononyl phthalate (DINP)	28553-12-0 68515-48-0				
Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1				

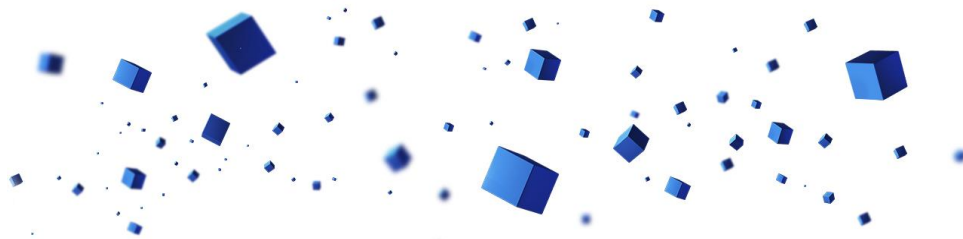


Plasticizers Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Di-n-propyl phthalate (DPRP)	131-16-8	Usage ban // Traces: 50 for every single substance			ISO 14389 (2014)
Di-n-pentyl phthalate (DnPP)	131-18-0				
Di-n-hexyl phthalate (DnHP)	84-75-3				
Di-n-octyl phthalate (DnOP)	117-84-0				
Di-cyclohexyl phthalate (DCHP)	84-61-7				
n-Pentyl-isopentyl phthalate	776297-69-9				
Phthalic acid and derivatives (others than esters)					
Phthalic acid anhydride	85-44-9	200	1000	1000	ISO 14389 (2014)





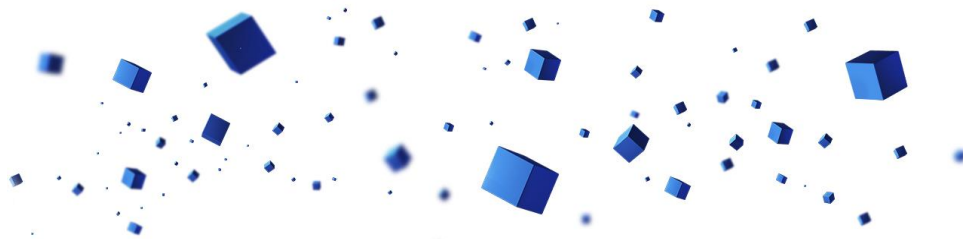
Polyaromatic Hydrocarbons (PAHs)					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Polyaromatic hydrocarbons (PAHs)	Several	Usage ban // Traces: for sum of all PAHs: 10			EPA 8310  EPA 8270D  EPA 8275A  AfPS GS 2014:01
Benzo(a)pyrene	50-32-8	Traces: 0.2			
Benzo(e)pyrene	192-97-2	Traces: 0.5   1.0   1.0			
Benzo(a)anthracene	56-55-3	Traces: 0.5   1.0   1.0			
Chrysene	218-01-9	Traces: 0.5   1.0   1.0			
Benzo(b)fluoroanthene	205-99-2	Traces: 0.5   1.0   1.0			
Benzo(j)fluoroanthene	205-82-3	Traces: 0.5   1.0   1.0			
Benzo(k)fluoroanthene	207-08-9	Traces: 0.5   1.0   1.0			
Dibenzo(a,h)anthracene	53-70-3	Traces: 0.5   1.0   1.0			
Acenaphthene	83-32-9				
Acenaphthylene	208-96-8				
Anthracene	120-12-7				
Benzo(ghi)perylene	191-24-2				
Fluoranthene	206-44-0				
Fluorene	86-73-7				
Indeno(1,2,3-cd)pyrene	193-39-5				
Naphthalene	91-20-3				
Phenanthrene	85-01-8				
Pyrene	129-00-0				



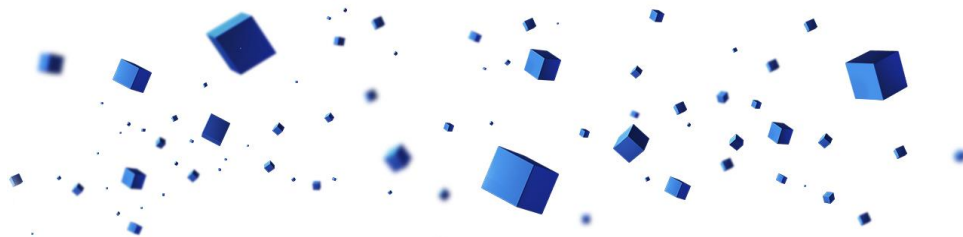
Polymers					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Polyvinyl chloride (PVC)	9002-86-2	Usage ban for A and B // Not detected Usage range C // bluesign technologies reserves the right to make a single decision for special applications			Beilstein test* // FTIR  *FTIR measurement only if result of Beilstein test was positive
Polyvinylidenchloride (PVDC)	9002-85-1	Usage ban for A and B // Not detected Usage range C // bluesign technologies reserves the right to make a single decision for special applications			Beilstein test* // FTIR  *FTIR measurement only if result of Beilstein test was positive



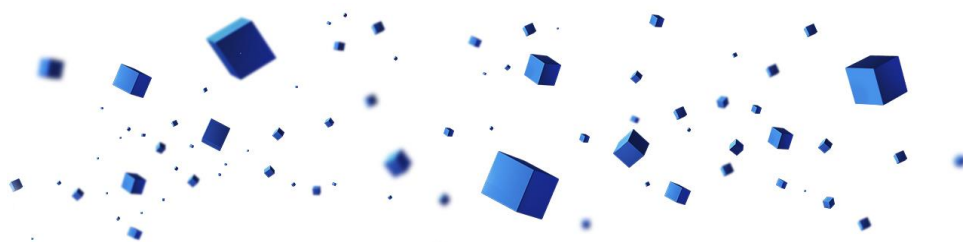
Solvents Part 1					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Acetone	67-64-1	10	10	100	Headspace GC-MS
Benzene	71-43-2	Usage ban // DL: 5.0			VDA 278 (2011)
Benzine/Gasoline	Several				
Benzine	8032-32-4	Usage ban in manufacturing (e.g. white spirit printing) // DL: 1.0			Headspace GC-MS
Gasoline	8006-61-9	Usage ban in manufacturing (e.g. white spirit printing) // DL: 1.0			Headspace GC-MS
Carbon disulfide	75-15-0	5.0	10	10	Headspace GC-MS
Chlorinated ethanes, all isomers	Several	Usage ban // DL: 1.0 for every single substance			Headspace GC-MS
1,1,1-Trichloroethane	71-55-6				
1,1,2-Trichloroethane	79-00-5				
1,1,1,2-Tetrachloroethane	630-20-6				
1,1,2,2-Tetrachloroethane	79-34-5				
Pentachloroethane	76-01-7				
Hexachloroethane	67-72-1				
Cyclohexane	110-82-7	10			Headspace GC-MS
1,2-Dichloroethane	107-06-2	Usage ban // DL: 1.0			Headspace GC-MS
Dichloromethane	75-09-2	Usage ban for direct use in manufacturing of articles // DL: 5.0			Headspace GC-MS
Dimethyl sulfoxide (DMSO)	67-68-5	500	1000	1000	Headspace or Extraction with MeOH // GC-MS
Hexachlorobutadiene	87-68-3	Usage ban // DL: 10			Extraction with DCM // GC-MS
N-ethyl-2-pyrrolidone (NEP)	2687-91-4	Usage ban Traces:			CEN ISO/TS 16189 (2013)
		10	10	100	



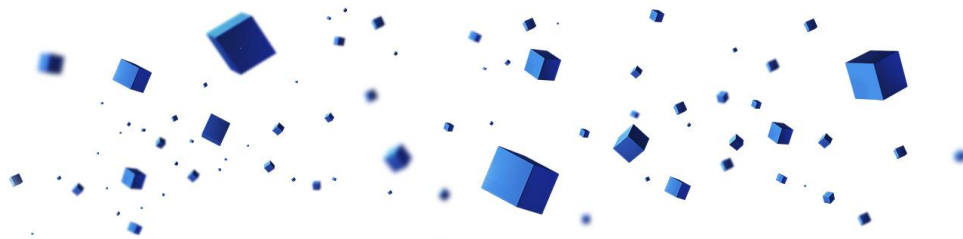
Solvents Part 2					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
n-Hexane	110-54-3	Usage ban in textile finishing // DL: 1.0			Headspace GC-MS
		Non-textile articles Traces:			
		1.0	10	10	
N-Methylpyrrolidone (NMP)	872-50-4	Usage ban Traces:			CEN ISO/TS 16189 (2013)
		10	10	100	
		Aramid fibers: bluesign technologies reserves the right to make a single decision for special applications			
N,N-Dimethylacetamide (DMAc)	127-19-5	Usage ban with exception of fiber manufacturing // DL: 5.0			CEN ISO/TS 16189 (2013)
		For fiber manufacturing (residual fiber solvent in elastane and PAN):			
		10	50	50	
		Monitoring for elastane and PAN fibers			
		Aramid fibers: for special applications bluesign technologies has the right to make an individual decision			



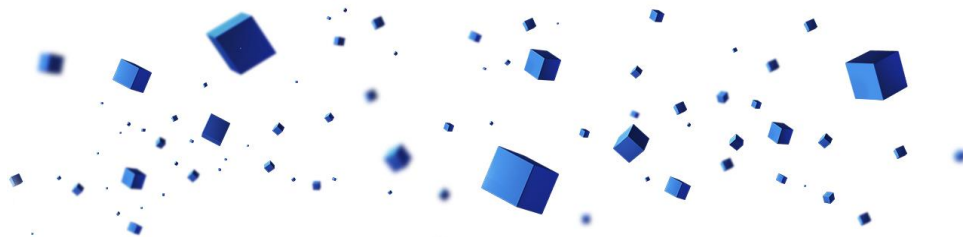
Solvents Part 3					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
N,N-Dimethylformamide (DMF)	68-12-2	Usage ban with exception of solvent coating, laminating, fiber manufacturing // DL: 5.0			CEN ISO/TS 16189 (2013)
		For solvent coating, laminating, fiber manufacturing: 50			
		PAN fibers: for special applications bluesign technologies has the right to make an individual decision			
n-Pentane	109-66-0	10	50	50	Headspace GC-MS
Tetrachloroethylene (Perchloroethylene)	127-18-4	Usage ban with exception of dry cleaning // DL: 1.0			Headspace GC-MS
		In case of dry cleaning: 10			
Tetrahydrofuran	109-99-9	10			Headspace GC-MS
Toluene	108-88-3	10	50	50	Headspace GC-MS
Trichloroethylene	79-01-6	Usage ban // DL: 5.0			Headspace GC-MS
Trichloromethane (Chloroform)	67-66-3	Usage ban // DL: 5.0			Headspace GC-MS
1,2,3-Trichloropropane	96-18-4	Usage ban // DL: 5.0			Headspace GC-MS
Trimethylbenzenes, all isomers	25551-13-7	50	100	100	Headspace GC-MS
1,2,3-Trimethylbenzene	526-73-8				
1,2,4-Trimethylbenzene	95-63-6	for every single listed substance			
1,3,5-Trimethylbenzene	108-67-8				



Solvents Part 4					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Xylene, all isomers	1330-20-7	Usage ban in textile finishing // DL: 1.0 for every single substance			Headspace GC-MS
m-Xylene	108-38-3	Non-textile articles Traces:			
o-Xylene	95-47-6	1.0	10	10	
p-Xylene	106-42-3				

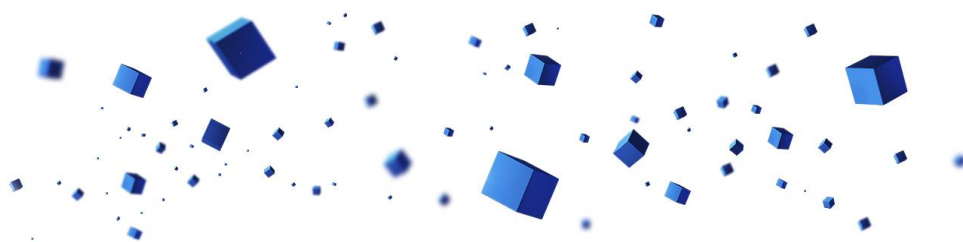


Tin-organic Compounds as mono-, di-, tri-, tetraalkyltin organics					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
Tin-organic compounds	Several	Usage ban			ISO/TS 16179 (2012)
Monomethyltin compounds (MMT)	Several	Traces: 2.0			
Monobutyltin compounds (MBT)	Several	Traces: 1.0			
Monophenyltin compounds (MPHT)	Several	Traces: 1.0			
Monooctyltin compounds (MOT)	Several	Traces: 2.0			
Dimethyltin compounds (DMT)	Several	DL: 0.5			
Dipropyltin compounds (DPT)	Several	Traces: 1.0			
Dibutyltin compounds (DBT)	Several	Traces: 1.0			
Dibutyltin dichloride (DBTC)	683-18-1	Traces: 1.0			
Diphenyltin compounds (DPHT)	Several	Traces: 2.0			
Dioctyltin compounds (DOT)	Several	Traces: 1.0			
Trimethyltin compounds (TMT)	Several	DL: 0.5			
Tripropyltin compounds (TPT)	Several	DL: 0.5			
Tributyltin compounds (TBT)	Several	DL: 0.5			
Bis(tributyltin) oxide (TBTO)	56-35-9	DL: 0.5			
Triphenyltin compounds (TPHT)	Several	DL: 0.5			
Trioctyltin compounds (TOT)	Several	DL: 0.5			
Tetraethyltin compounds (TeET)	Several	Traces: 1.0			
Tetrabutyltin compounds (TeBT)	Several	DL: 0.5			
Tetraoctyltin compounds (TeOT)	Several	DL: 0.5			
Tricyclohexyltin compounds (TCyHT)	Several	DL: 0.5			



UV stabilizers					
Chemical Substances	CAS Number	Limit Value [mg/kg] Usage range			Recommended Sample Preparation // Test Method
		A	B	C	
UV stabilizers	Several	Usage ban			
UV-320 2-benzotriazol-2-yl-4,6-di-tert-butylphenol	3846-71-7	Traces: 1000			Extraction with Hexane/Dichloroethane // GC- MS
UV-327 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol	3864-99-1				
UV-328 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1- dimethylpropyl)phenol	25973-55-1				
UV-350 2-(2H-Benzotriazol-2-yl)-4-(tert-butyl)-6-(sec- butyl)phenol	36437-37-3				





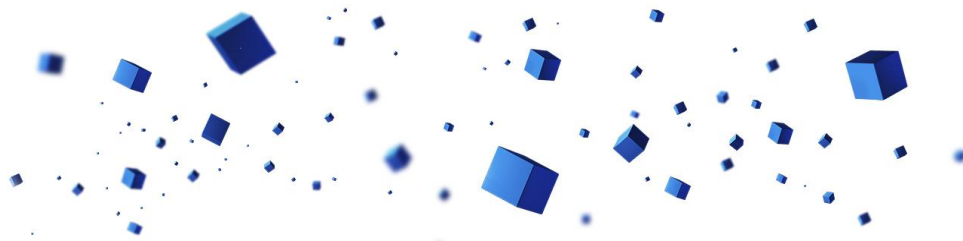
## 5.2 Substances with usage restrictions but no consumer safety limits

The following substances are not relevant concerning consumer safety aspects, or due to the fact, that they are used in very early manufacturing steps, normally are not to be found as residues in the article. Therefore, consumer safety limit values are not defined; however restrictions and bans are controlled by the bluesign® CHEMICAL ASSESSMENT (bluesign® TOOL limits) and the on-site inspection.

Substances with usage restrictions but no consumer safety limits		
Part 1		Usage restrictions
Chemical Substances	CAS Number	
Bis(chloromethyl)ether	542-88-1	Usage ban Bis(chloromethyl)ether is a reaction product of formaldehyde and conc. hydrochloric acid. Formation shall be avoided in every case.
1,3-Butadiene	106-99-0	Usage ban
Di(hydrogenated tallow alkyl)dimethylammonium chloride (DHTDMAC)	61789-80-8	Usage ban
Distearyl dimethyl ammonium chloride (DSDMAC)	107-64-2	Usage ban
Ditallow dimethyl ammonium chloride (DTCMAC)	68783-78-8	Usage ban
EDTA/DTPA and salts	Several	Usage ban as water softener for freshwater preparation. Usage ban in textile auxiliaries.
Ethylene diamine tetraacetic acid (EDTA), disodium salt dihydrate	139-33-3 / 6381-92-6	
Ethylene diamine tetraacetic acid (EDTA), tetrasodium salt	64-02-8	
Diethylene triamine pentaacetic acid (DTPA), sodium salt	140-01-2	
Ethylene oxide	75-21-8	Usage ban
Propylene oxide	75-56-9	Usage ban
Hypochlorite/ Chlorine		Several restrictions: compare with Guidance Sheet Hypochlorite
Calcium hypochlorite	7778-54-3	
Sodium hypochlorite	7681-52-9	
Chlorine	7782-50-5	
Sodium chlorite	7758-19-2	Usage ban with exception of extra white polyester for home textiles



Substances with usage restrictions but no consumer safety limits		
Part 2		
Chemical Substances	CAS Number	Usage restrictions
Phosphonates and salts	Several	Usage ban as water softener for freshwater preparation. Minimization requirement
Amino, tris(methylene phosphonic acid)	6419-19-8	
Diethylenetriaminepenta(methylenephosphonic acid)	15827-60-8	
Ethylenediaminetetra(methylenephosphonic acid)	1429-50-1	
1-Hydroxyethane-1,1-diphosphonic acid	2809-21-4	Usage ban: compare with Guidance Sheet Potassium permanganate
Potassium permanganate	7722-64-7	



## Annex I Compilation of single substances

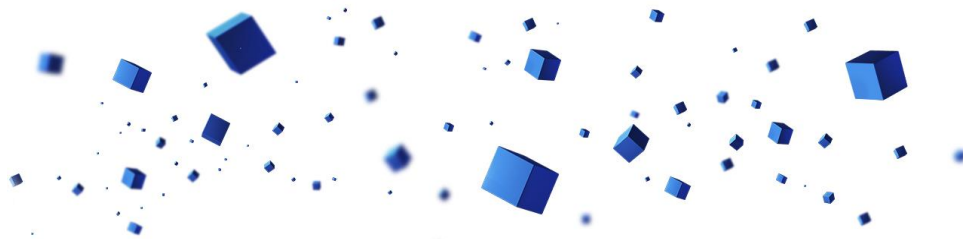
In the following tables single substances belonging to groups:

- Asbestos
- Chlorinated benzenes and toluenes
- Colorants which can cleave in carcinogenic amines
- Dioxins and furans
- Greenhouse gases, fluorinated
- Ozone depleting substances
- Pesticides

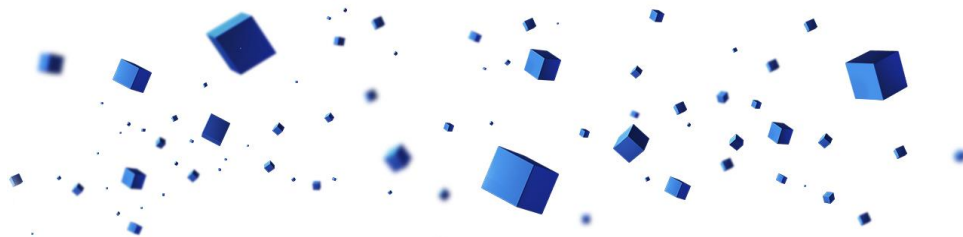
are listed.

Limit values and test methods for the substance groups are provided in section 5.1.6.

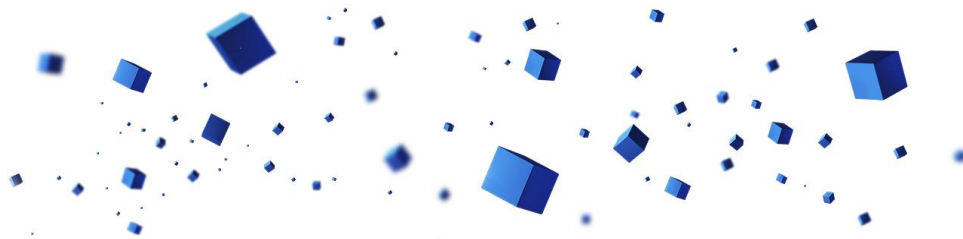
Asbestos	
Chemical Substances	CAS Number
Actinolite	77536-66-4
Amosite	12172-73-5
Anthophyllite	77536-67-5
Chrysotile	12001-29-5
Crocidolite	12001-28-4
Tremolite	77536-68-6



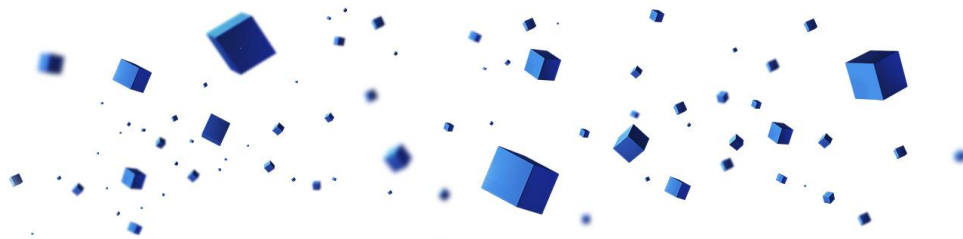
Chlorinated Benzenes and Toluenes			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Chlorinated benzenes		Dichlorotoluenes, all isomers	Several
Dichlorobenzenes, all isomers	Several	2,3-Dichlorotoluene	32768-54-0
1,2-Dichlorobenzene	95-50-1	2,4-Dichlorotoluene	95-73-8
1,3-Dichlorobenzene	541-73-1	2,5-Dichlorotoluene	19398-61-9
1,4-Dichlorobenzene	106-46-7	2,6-Dichlorotoluene	118-69-4
Trichlorobenzenes, all isomers	Several	3,4-Dichlorotoluene	95-75-0
1,2,3-Trichlorobenzene	87-61-6	3,5-Dichlorotoluene	25186-47-4
1,2,4-Trichlorobenzene	120-82-1	Trichlorotoluenes, all isomers	Several
1,3,5-Trichlorobenzene	108-70-3	2,3,4-Trichlorotoluene	7359-72-0
Tetrachlorobenzenes, all isomers	Several	2,3,6-Trichlorotoluene	2077-46-5
1,2,3,4-Tetrachlorobenzene	634-66-2	2,4,5-Trichlorotoluene	6639-30-1
1,2,3,5-Tetrachlorobenzene	634-90-2	2,4,6-Trichlorotoluene	23749-65-7
1,2,4,5-Tetrachlorobenzene	95-94-3	3,4,5-Trichlorotoluene	21472-86-6
Chlorinated toluenes		a,a,a-Trichlorotoluene	98-07-7
Monochlorotoluenes, all isomers	Several	Tetrachlorotoluenes, all isomers	Several
2-Chlorotoluene	95-49-8	2,3,4,5-Tetrachlorotoluene	76057-12-0
3-Chlorotoluene	108-41-8	2,3,5,6-Tetrachlorotoluene	29733-70-8
4-Chlorotoluene	106-43-4	2,3,4,6-Tetrachlorotoluene	875-40-1
		a,a,a,4-Tetrachlorotoluene	5216-25-1



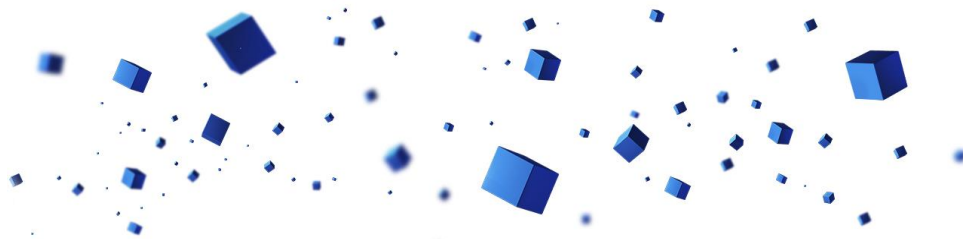
Colorants which can cleave in carcinogenic amines (List is not exhaustive)			
Part 1			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Acid Black 29	12217-14-0	Basic Red 76	68391-30-0
Acid Black 94	6358-80-1	Basic Red 111	113741-92-7
Acid Black 131	12219-01-1	Basic Red 114	-
Acid Black 132	12219-02-2	Basic Yellow 82	-
Acid Black 209	72827-68-0	Basic Yellow 103	-
Acid Black 232	-	Developer 14 = Oxidation Base 20	95-80-7
Acid Brown 415	97199-27-4	Direct Black 4	25156-49-4
Acid Orange 45	2429-80-3	Direct Black 29	25180-14-7
Acid Red 4	5858-39-9	Direct Black 154	54804-85-2
Acid Red 5	5858-63-9	Direct Blue 1	2610-05-1
Acid Red 24	5858-30-0	Direct Blue 2	2429-73-4
Acid Red 35	6441-93-6	Direct Blue 3	2429-72-3
Acid Red 73	5413-75-2	Direct Blue 8	2429-71-2
Acid Red 85	3567-65-5	Direct Blue 9	6428-98-4
Acid Red 104	8006-06-2	Direct Blue 10	4198-19-0
Acid Red 114	6459-94-5	Direct Blue 14	72-57-1
Acid Red 115	6226-80-8	Direct Blue 15	2429-74-5
Acid Red 116	6245-62-1	Direct Blue 21	6420-09-3
Acid Red 119:1	90880-75-4	Direct Blue 22	2586-57-4
Acid Red 128	6548-30-7	Direct Blue 25	25180-27-2
Acid Red 148	6300-53-4	Direct Blue 35	6473-33-2
Acid Red 150	6226-78-4	Direct Blue 53	314-13-6
Acid Red 158	8004-55-5	Direct Blue 151	110735-25-6
Acid Red 167	61901-41-5	Direct Blue 160	12222-02-5
Acid Red 264	6505-96-0	Direct Blue 173	12235-72-2
Acid Red 265	6358-43-6	Direct Blue 192	159202-76-3
Acid Red 420	-	Direct Blue 215	6771-80-8
Acid Violet 12	6625-46-3	Direct Blue 295	6420-22-0
Azoic Diazo Component 12	99-55-8	Direct Blue 306	-
Azoic Diazo Component 48	119-90-4	Direct Brown 1	3811-71-0
Azoic Diazo Component 112	92-87-5	Direct Brown 1:2	2586-58-5
Azoic Diazo Component 113	119-93-7	Direct Brown 2	25255-06-5
Basic Brown 4	8005-78-5	Direct Brown 6	25180-39-6
Basic Red 42	12221-66-8	Direct Brown 25	33363-87-0



Colorants which can cleave in carcinogenic amines (List is not exhaustive) Part 2			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Direct Brown 27	6360-29-8	Direct Red 39	6358-29-8
Direct Brown 31	25180-41-0	Direct Red 44	2302-97-8
Direct Brown 33	1324-87-4	Direct Red 46	6548-29-4
Direct Brown 51	4623-91-0	Direct Red 62	6420-43-5
Direct Brown 59	6247-51-4	Direct Red 67	6598-56-7
Direct Brown 74	8014-91-3	Direct Red 72	8005-64-9
Direct Brown 79	6483-77-8	Direct Violet 1	25188-44-7
Direct Brown 95	16071-86-6	Direct Violet 4	6472-95-3
Direct Brown 101	3626-29-7	Direct Violet 12	2429-75-6
Direct Brown 154	6360-54-9	Direct Violet 13	13478-92-7
Direct Brown 222	64743-15-3	Direct Violet 21	25188-48-1
Direct Brown 223	76930-14-8	Direct Violet 22	25329-82-2
Direct Green 1	3626-28-6	Direct Yellow 24	6486-29-9
Direct Green 6	4335-09-5	Direct Yellow 48	6459-97-8
Direct Green 8	25180-47-6	Disperse Orange 60	12270-44-9
Direct Green 8:1	76012-70-9	Disperse Red 151	61968-47-6
Direct Green 85	72390-60-4	Disperse Red 221	64426-35-3
Direct Orange 1	54579-28-1	Disperse Yellow 7	6300-37-4
Direct Orange 6	6637-88-3	Disperse Yellow 56	54077-16-6
Direct Orange 7	2868-76-0	Disperse Yellow 218	83929-90-2
Direct Orange 8	64083-59-6	Solvent Orange 7	3118-97-6
Direct Orange 10	6405-94-3	Mordant Red 57	2429-84-7
Direct Orange 108	6358-79-8	Mordant Yellow 16	8003-87-0
Direct Red 1	25188-24-3	Solvent Red 1	1229-55-6
Direct Red 2	992-59-6	Solvent Red 19	6368-72-5
Direct Red 7	25188-28-7	Solvent Red 23	85-86-9
Direct Red 10	25188-29-8	Solvent Red 24	85-83-6
Direct Red 13	25188-30-1	Solvent Red 26	4477-79-6
Direct Red 17	25188-32-3	Solvent Red 68	61813-90-9
Direct Red 21	6406-01-5	Solvent Red 69	5413-75-2
Direct Red 22	6448-80-2	Solvent Red 164	71819-51-7
Direct Red 24	6420-44-6	Solvent Red 215	-
Direct Red 26	3687-80-7	Solvent Yellow 72	61813-98-7
Direct Red 37	3530-19-6		

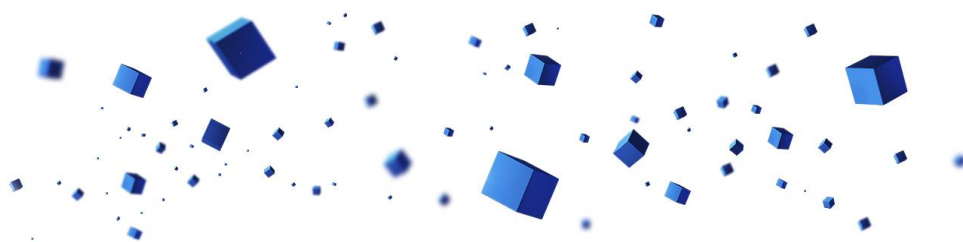


Dioxins and Furans			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Group 1:	Several	Group 3:	Several
2,3,7,8-Tetrachlorodibenzo-p-dioxin	1746-01-6	1,2,3,4,6,7,8-Heptachlorodibenzo-p-dioxin	35822-46-9
1,2,3,7,8-Pentachlorodibenzo-p-dioxin	40321-76-4	1,2,3,4,6,7,8,9-Octachlorodibenzo-p-dioxin	3268-87-9
2,3,7,8-Tetrachlorodibenzofuran	51207-31-9	1,2,3,4,6,7,8-Heptachlorodibenzofuran	67562-39-4
2,3,4,7,8-Pentachlorodibenzofuran	57117-31-4	1,2,3,4,7,8,9-Heptachlorodibenzofuran	55673-89-7
		1,2,3,4,6,7,8,9-Octachlorodibenzofuran	39001-02-0
Group 2:	Several	Group 4:	Several
1,2,3,4,7,8-Hexachlorodibenzo-p-dioxin	39227-28-6	2,3,7,8-Tetrabromodibenzo-p-dioxin	50585-41-6
1,2,3,6,7,8-Hexachlorodibenzo-p-dioxin	57653-85-7	1,2,3,7,8-Pentabromodibenzo-p-dioxin	109333-34-8
1,2,3,7,8,9-Hexachlorodibenzo-p-dioxin	19408-74-3	2,3,7,8-Tetrabromodibenzofuran	67733-57-7
1,2,3,7,8-Pentachlorodibenzofuran	57117-41-6	2,3,4,7,8-Pentabromodibenzofuran	131166-92-2
1,2,3,4,7,8-Hexachlorodibenzofuran	70648-26-9	Group 5:	Several
1,2,3,6,7,8-Hexachlorodibenzofuran	57117-44-9	1,2,3,4,7,8-Hexabromodibenzo-p-dioxin	110999-44-5
1,2,3,7,8,9-Hexachlorodibenzofuran	72918-21-9	1,2,3,6,7,8-Hexabromodibenzo-p-dioxin	110999-45-6
2,3,4,6,7,8-Hexachlorodibenzofuran	60851-34-5	1,2,3,7,8,9-Hexabromodibenzo-p-dioxin	110999-46-7
		1,2,3,7,8-Pentabromodibenzofuran	107555-93-1



Greenhouse Gases, fluorinated			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Sulphur hexafluoride - SF <sub>6</sub>	2551-62-4	Hydrofluorocarbons (HFCs) cont.	
Perfluorocarbons (PFCs)	Several	HFC-125 - C <sub>2</sub> H <sub>5</sub> F	354-33-6
Perfluoromethane (CF <sub>4</sub> )	75-73-0	HFC-134 - C <sub>2</sub> H <sub>2</sub> F <sub>4</sub>	359-35-3
Perfluoroethane (C <sub>2</sub> F <sub>6</sub> )	76-16-4	HFC-134a - CH <sub>2</sub> FCF <sub>3</sub>	811-97-2
Perfluoropropane (C <sub>3</sub> F <sub>8</sub> )	76-19-7	HFC-152a - C <sub>2</sub> H <sub>4</sub> F <sub>2</sub>	75-37-6
Perfluorobutane (C <sub>4</sub> F <sub>10</sub> )	355-25-9	HFC-143 - C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	430-66-0
Perfluoropentane (C <sub>5</sub> F <sub>12</sub> )	678-26-2	HFC-143a - C <sub>2</sub> H <sub>3</sub> F <sub>3</sub>	420-46-2
Perfluorohexane (C <sub>6</sub> F <sub>14</sub> )	355-42-0	HFC-227ea - C <sub>3</sub> H <sub>7</sub> F <sub>7</sub>	431-89-0
Perfluorocyclobutane (c-C <sub>4</sub> F <sub>8</sub> )	115-25-3	HFC-236cb - CH <sub>2</sub> FCF <sub>2</sub> CF <sub>3</sub>	677-56-5
Hydrofluorocarbons (HFCs)	Several	HFC-236ea - CHF <sub>2</sub> CHFCF <sub>3</sub>	431-63-0
HFC-23 - CHF <sub>3</sub>	75-46-7	HFC-236fa - C <sub>3</sub> H <sub>2</sub> F <sub>6</sub>	690-39-1
HFC-32 - CH <sub>2</sub> F <sub>2</sub>	75-10-5	HFC-245ca - C <sub>3</sub> H <sub>3</sub> F <sub>5</sub>	679-86-7
HFC-41 - CH <sub>3</sub> F	593-53-3	HFC-245fa - CHF <sub>2</sub> CH <sub>2</sub> CF <sub>3</sub>	460-73-1
HFC-43-10mee - C <sub>5</sub> H <sub>2</sub> F <sub>10</sub>	138495-42-8	HFC-365mfc - CF <sub>3</sub> CH <sub>2</sub> CF <sub>2</sub> CH <sub>3</sub>	406-58-6





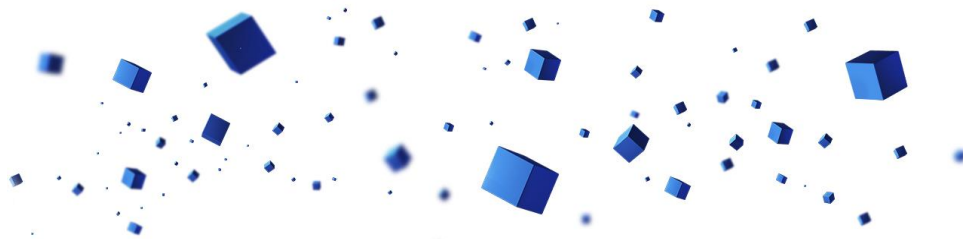
Ozone Depleting Substances (CFCs) Part 1			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Ozone-depleting substances class I	Several	Dichlorohexafluoropropane CFC-216	661-97-2
Trichlorofluoromethane CFC-11	75-69-4	Monochloroheptafluoropropane CFC-217	422-86-6
Dichlorofluoromethane CFC-12	75-71-8	Carbon tetrachloride CCl <sub>4</sub>	56-23-5
1,1,2-Trichloro-1,2,2-trifluoroethane CFC-113	76-13-1	CHFBr <sub>2</sub> – HBFC-21 B2	1868-53-7
1,1,1-Trichloro-2,2,2-trifluoroethane CFC-113a	354-58-5	CHF <sub>2</sub> Br – HBFC-22 B1	1511-62-2
1,2-Dichloro-1,1,2,2-tetrafluoroethane CFC-114	76-14-2	CH <sub>2</sub> FBr – HBFC-31 B1	373-52-4
1,1-Dichloro-1,2,2,2-tetrafluoroethane CFC-114a	374-07-2	C <sub>2</sub> HFBr <sub>4</sub> – HBFC-121 B4	353-93-5
Monochloropentafluoroethane CFC-115	76-15-3	C <sub>2</sub> HF <sub>2</sub> Br <sub>3</sub> – HBFC-122 B3	353-97-9
Bromochlorodifluoromethane Halon-1211	353-59-3	C <sub>2</sub> HF <sub>3</sub> Br <sub>2</sub> – HBFC-123 B2 (Halon 2302)	354-04-1
Bromotrifluoromethane Halon-1301	75-63-8	C <sub>2</sub> HF <sub>4</sub> Br – HBFC-124 B1	354-07-4
Dibromotetrafluoroethane Halon-2402	124-73-2	C <sub>2</sub> H <sub>2</sub> FBr <sub>3</sub> – HBFC-131 B3	172912-75-3
Chlorotrifluoromethane CFC-13	75-72-9	C <sub>2</sub> H <sub>2</sub> F <sub>2</sub> Br <sub>2</sub> - HBFC-132 B2	75-82-1
Pentachlorofluoroethane CFC-111	354-56-3	C <sub>2</sub> H <sub>2</sub> F <sub>3</sub> Br - HBFC-133a B1	421-06-7
1,1,2,2-Tetrachloro-1,2-difluoroethane CFC-112	76-12-0	C <sub>2</sub> H <sub>3</sub> FBr <sub>2</sub> - HBFC-141 B2	358-97-4
1,1,1,2-Tetrachlorodifluoroethane CFC-112a	76-11-9	C <sub>2</sub> H <sub>3</sub> F <sub>2</sub> Br - HBFC-142 B1	359-07-9
Heptachlorofluoropropane CFC-211	422-78-6	C <sub>2</sub> H <sub>4</sub> FBr - HBFC-151 B1	762-49-2
Hexachlorodifluoropropane CFC-212	3182-26-1	C <sub>3</sub> HFBr <sub>6</sub> - HBFC-221 B6	-
Pentachlorotrifluoropropane CFC-213	2354-06-5	C <sub>3</sub> HF <sub>2</sub> Br <sub>5</sub> - HBFC-222 B5	-
Tetrachlorotetrafluoropropane CFC-214	29255-31-0	C <sub>3</sub> HF <sub>3</sub> Br <sub>4</sub> - HBFC-223 B4	-
1,1,3-Trichloropentafluoropropane CFC-215	76-17-5	C <sub>3</sub> HF <sub>4</sub> Br <sub>3</sub> - HBFC-224 B3	666-48-8
1,2,3-Trichloropentafluoropropane CFC-215	1652-81-9	C <sub>3</sub> HF <sub>5</sub> Br <sub>2</sub> - HBFC-225 B2	431-78-7
1,1,1-Trichloropentafluoropropane CFC-215	4259-43-2	C <sub>3</sub> HF <sub>6</sub> Br - HBFC-226 B1	2252-79-1
1,2,2-Trichloropentafluoropropane CFC-215	1599-41-3	C <sub>3</sub> H <sub>2</sub> FBr <sub>5</sub> - HBFC-231 B5	-



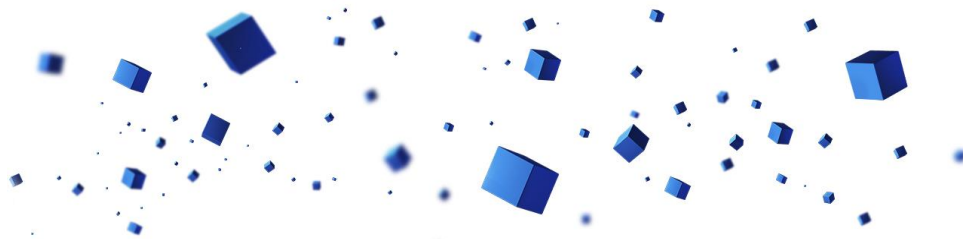
Ozone Depleting Substances (CFCs) Part 2			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
C3H2F2Br4 - HBFC-232 B4	148875-98-3	Ozone-depleting substances class II	Several
C3H2F3Br3 - HBFC-233 B3	431-48-1	Dichlorofluoromethane HCFC-21	75-43-4
C3H2F4Br2 - HBFC-234 B2	460-86-6	Monochlorodifluoromethane HCFC-22	75-45-6
C3H2F5Br - HBFC-235 B1	460-88-8	Monochlorofluoromethane HCFC-31	593-70-4
C3H3FBr4 - HBFC-241 B4	-	Tetrachlorofluoroethane HCFC-121	354-14-3
C3H3F2Br3 - HBFC-242 B3	666-25-1	Trichlorodifluoroethane HCFC-122	354-21-2
C3H3F3Br2 - HBFC-243 B2	460-60-6	Dichlorotrifluoroethane HCFC-123	306-83-2
C3H3F4Br - HBFC-244 B1	460-67-3	Monochlorotetrafluoroethane HCFC-124	2837-89-0
C3H4FBr3 - HBFC-251 B1	75372-14-4	Trichlorofluoroethane HCFC-131	359-28-4
C3H4F2Br2HBFC-252 B2	51584-25-9	Dichlorodifluoroethane HCFC-132	1649-08-7
C3H4F3Br - HBFC-253 B1	460-32-2	Monochlorotrifluoroethane HCFC-133a	75-88-7
C3H5FBr2 - HBFC-261 B2	453-00-9	HCFC-141	-
C3H5F2BrHBFC-262 B1	461-49-4	Dichlorofluoroethane HCFC-141b	1717-00-6
C3H6FBr - HBFC-271 B1	1871-72-3	HCFC-142	-
Chlorobromomethane CH2BrCl	-	Monochlorodifluoroethane HCFC-142b	75-68-3
		HCFC-151	-
		Hexachlorofluoropropane HCFC-221	422-26-4



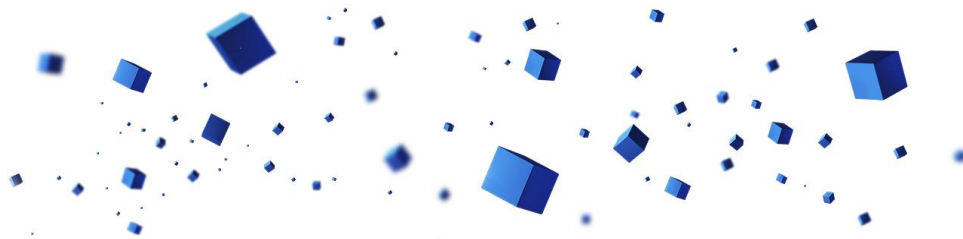
Ozone Depleting Substances (CFCs) Part 3			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Pentachlorodifluoropropane HCFC-222	422-49-1	Monochloropentafluoropropane HCFC-235	460-92-4
Tetrachlorotrifluoropropane HCFC-223	422-52-6	Tetrachlorofluoropropane HCFC-241	666-27-3
Trichlorotetrafluoropropane HCFC-224	422-54-8	Trichlorodifluoropropane HCFC-242	460-63-9
HCFC-225	-	Dichlorotrifluoropropane HCFC-243	460-69-5
Dichloropentafluoropropane HCFC-225ca	422-56-0	Monochlorotetrafluoropropane HCFC-244	134190-50-4
Dichloropentafluoropropane HCFC-225cb	507-55-1	Trichloromonofluoropropane HCFC-251	421-41-0
Monochlorohexafluoropropane HCFC-226	431-87-8	Dichlorodifluoropropane HCFC-252	819-00-1
Pentachlorofluoropropane HCFC-231	421-94-3	Monochlorotrifluoropropane HCFC-253	460-35-5
Tetrachlorodifluoropropane HCFC-232	460-89-9	Dichlorofluoropropane HCFC-261	420-97-3
Trichlorotrifluoropropane HCFC-233	7125-84-0	Monochlorodifluoropropane HCFC-262	421-02-3
Dichlorotetrafluoropropane HCFC-234	425-94-5	Monochlorofluoropropane HCFC-271	430-55-7



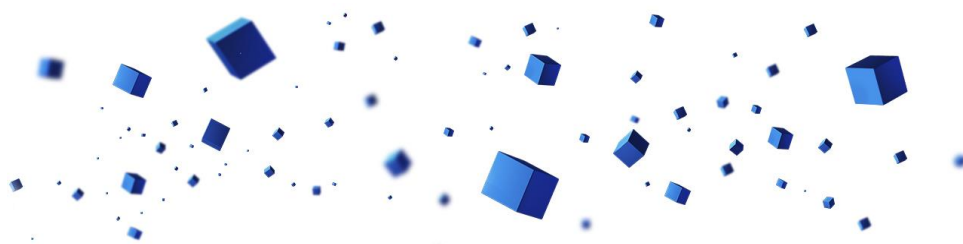
Pesticides Part 1			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Acetamiprid	135410-20-7 160430-64-8	Cypermethrin	52315-07-8
Alachlor	15972-60-8	Deltamethrin	52918-63-5
Aldicarb	116-06-3	Demeton	919-86-8
Aldrine	309-00-2	Diazinon	333-41-5
Atrazine	1912-24-9	1,2-Dibromo-3-chloropropane (DBCP)	96-12-8
Azinphos methyl	86-50-0	Dichlofenthion	97-17-6
Azinphos ethyl	2642-71-9	Dichlofluanide	1085-98-9
Binapacryl	485-31-4	o,p'-Dichlorodiphenyldichloroethane (o,p'-DDD)	53-19-0
Bromophos-ethyl	4824-78-6	p,p'-Dichlorodiphenyldichloroethane (p,p'-DDD)	72-54-8
Captafol	2425-06-1	o,p'-Dichlorodiphenyldichloroethylene (o,p'-DDE)	3424-82-6
Carbaryl	63-25-2	p,p'-Dichlorodiphenyldichloroethylene (p,p'-DDE)	72-55-9
Carbendazim	10605-21-7	o,p'-Dichlorodiphenyltrichloroethane (o,p'-DDT) and its isomers; preparations containing DDT and its isomers	789-02-6
Chlordane	57-74-9	p,p'-Dichlorodiphenyltrichloroethane (p,p'-DDT) and its isomers; preparations containing DDT and its isomers	50-29-3
Chlordecone	143-50-0	2,4-Dichlorophenoxyacetic acid, its salts and compounds	94-75-7
Chlordimeform	6164-98-3	4,6-Dichloro-7-(2,4,5-trichlorophenoxy)-2-trifluoromethylbenzimidazole (DTTB)	63405-99-2
Chlorfenvinphos	470-90-6	Dichlorprop	120-36-5
Chlorobenzilate	510-15-6	Dichlorvos	62-73-7
Chlorpyrifos	2921-88-2	Dicofol	115-32-2
Chlorthalonil	1897-45-6	Dicrotophos	141-66-2
Clothianidin	210880-92-5	Dicyclanil	112636-83-6
Coumaphos	56-72-4	Dieldrine	60-57-1
Cyfluthrin	68359-37-5	Diflubenzuron	35367-38-5
Cyhalothrin, lambda	91465-08-6	Dimethoate	60-51-5



Pesticides Part 2			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Dinotefuran	165252-70-0	Linuron	330-55-2
Dinoseb, its salts and acetate	88-85-7 and others	Malathion	121-75-5
Dinoterb	1420-07-1	MCPA	94-74-6
Disulfoton	298-04-4	MCPB	94-81-5
Diuron	330-54-1	Mecoprop	93-65-2
DNOC	534-52-1	Methamidophos	10265-92-6
Endosulfan	115-29-7	Methoxychlor	72-43-5
Endosulfan, alpha	959-98-8	Methyl bromide	74-83-9
Endosulfan, beta	33213-65-9	Methyl parathion	298-00-0
Endrine	72-20-8	Mevinophos	7786-34-7
Esfenvalerate	66230-04-4	Mirex	2385-85-5
Ethion	563-12-2	Monocrotophos	6923-22-4
Ethyl parathion	56-38-2	Monolinuron	1746-81-2
Ethylene dibromide (EDB)	106-93-4	Nitenpyram	150824-47-8 120738-89-8
Fenclorphos	299-84-3	Omethoate	1113-02-6
Fenitrothion	122-14-5	Oxydemeton-methyl	301-12-2
Fenvalerate	51630-58-1	Paraquat dication	4685-14-7
Flumethrin	69770-45-2	Paraquat dichloride	1910-42-5
Heptachlor	76-44-8	Pentachloroanisole	1825-21-4
Heptachlor epoxide	1024-57-3	Perthane	72-56-0
Hexachlorocyclohexane (HCH), all isomers	608-73-1	Phosphamidon	13171-21-6
Imidacloprid	105827-78-9 138261-41-3	Phoxim	14816-18-3
Isodrin	465-73-6	Pirimiphos-methyl	29232-93-7
Isoproturon	34123-59-6	Profenophos	41198-08-7
Kelevane	4234-79-1	Propanil	709-98-8
Lindane (gamma-HCH)	58-89-9	Propetamphos	31218-83-4



Pesticides Part 3			
Chemical Substances	CAS Number	Chemical Substances	CAS Number
Pyrazon	1698-60-8	Tolyfluanide	731-27-1
Quinalphos	13593-03-8	Toxaphene	8001-35-2
Quintozene	82-68-8	Tribufos (DEF)	78-48-8
Simazine	122-34-9	Trichlorfon	52-68-6
Strobane	8001-50-1	2,4,5-Trichlorophenoxyacetic acid, salts and compounds	93-76-5
Telodrin	297-78-9	2-(2,4,5-Trichlorophenoxy)propionic acid, salts and compounds	93-72-1
Tiacloprid	111988-49-9	Triflumuron	64628-44-0
Timiperone (DTTB)	57648-21-2	Trifluralin	1582-09-8
Thiamethoxam	153719-23-4	Vinclozolin	50471-44-8



## Annex II Usage Ranges

Usage ranges classify consumer goods according to their consumer safety relevance.

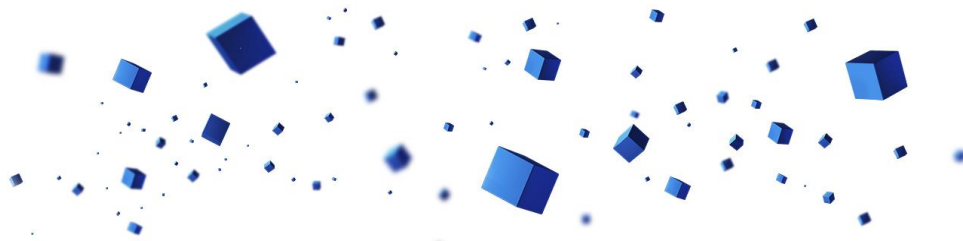
Exposure scenarios concerning oral, dermal and inhalative exposure are the guiding principles for the definition of limit values to ensure consumer safety and the basis for setting usage ranges. Dermal exposure (exposure to human skin) is the main criteria used to allocate usage range. Other exposure routes may override this allocation if a more stringent usage range would result.

Three usage ranges (A, B, C) are defined with A being the most stringent category concerning limit values/bans:

- Usage Range A: Next to skin use and baby articles (0 to 3 years)
- Usage Range B: Occasional skin contact
- Usage Range C: No skin contact

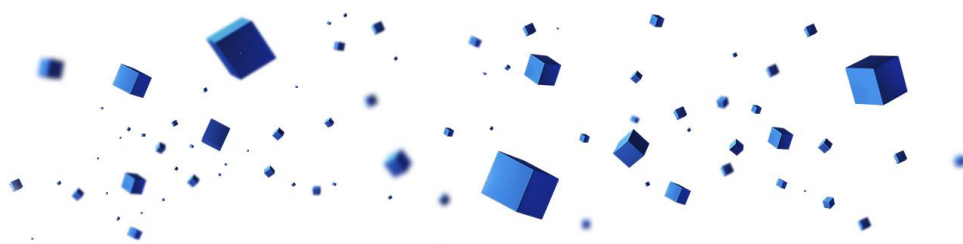
This means a garment is at least usage range B unless the wearing properties and expected consumer behavior require a classification in usage range A.

The following table lists common consumer goods and allocates usage ranges. This classification is typically valid for the complete product. Exceptions are defined in the list.



Consumer goods	Usage range A	Usage range B	Usage range C	
Automotive			x	Seat fabric - usage range B
Baby wear and textile articles (0 – 3 years)	x			
Backpack			x	Shoulder straps, harness and backrest that have contact with the skin must be usage range A
Bed linen	x			
Bike shorts	x			
Blouse		x		
Bra	x			
Carpet		x		
Cleaning cloth		x		
Curtain			x	
Dress		x		
Furnishing fabric		x		e.g. seat cover
Geo textiles			x	e.g. building-/construction textiles, erosion protective textiles
Gloves/Mittens	x			
Harness		x		
Headdress	x			
Hummock		x		
Jacket		x		
Leggings	x			
Long sleeve t-shirt	x			
Mosquito net			x	
Pants		x		
Pullover		x		
Ropes & slings		x	x	Depends on use
Scarf	x			
Shirt		x		
Skirt		x		
Sleeping bag		x		Lining must be usage range A
Sleeping mattress	x			
Socks	x			
Sport shirt	x			
Sweatshirt		x		
Swim wear	x			
Tent			x	Tent floor must be usage range B





Consumer goods	Usage range	Usage range	Usage range
	A	B	C
Tie		x	
Tights	x		
Towel		x	
T-Shirt	x		
Underpants (long/short)	x		
Undershirt	x		