



**List of prohibited and declaration-obligatory substances  
in chemical production supplies**

**S 132030-2**

ICS 13.020; 13.100; 75.100

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Descriptors: Safety, substance, preparation, substance prohibition, environmental protection, prohibited substances, packaging, chemical, production chemical, auxiliary substance, production substance, negative list

Liste verbotener und deklarationspflichtiger Stoffe in chemischen Hilfs- und Betriebsstoffen

Deskriptoren: Arbeitsschutz, Stoff, Zubereitung, Stoffverbot, Umweltschutz, verbotene Stoffe, Verpackung, Chemikalie, Produktionschemikalie, Hilfsstoff, Betriebsstoff, Negativliste

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**Revisions**

Compared to the current editions, the following revisions have been made:  
 Completely revised.

Continued on pp. 2 - 6

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## 1 Area of application

This Standard applies to all production chemicals which are used in the Schaeffler Group, except lab chemicals. Observing this standard does not release from the responsibility to meet laws and guidelines in force.

## 2 Prohibited and declaration-obligatory substances

### 2.1 Principle prohibition

Substances with following properties are prohibited above the respective consideration limits and may not be created during conventional use.

For current numbers 1 to 6 the consideration limits apply to the concentration from which a designation of the substance or the preparation per EU chemical legislation<sup>4)</sup> has to be performed.

No.	Substance type
1	Carcinogenic substances per classification in EU chemical legislation <sup>1) 4)</sup> , categories 1 and 2
2	Reproduction toxic substances per classification in EU chemical legislation <sup>1) 4)</sup> , categories 1 and 2
3	Mutagenic substances per classification in EU chemical legislation <sup>1) 4)</sup> , categories 1 and 2
4	Highly toxic or toxic substances per classification in EU chemical legislation <sup>1) 4)</sup>
5	Highly combustible substances per classification in EU chemical legislation <sup>1) 2) 4)</sup>
6	Explosive substances per classification in EU chemical legislation <sup>1) 4)</sup>
7	Radioactive substances per classification in the Atomic Law
8	Ozone damaging substances all substances regulated within the scope of the "Council ordinance (EU) on substances which lead to the decomposition of the ozone layer" and substances in classes I and II of the Clean Air Act <sup>3)</sup>

Beyond that the specific requirements indicated in the main groups 1, 2.1 and 2.2. apply.

### 2.2 Substance prohibition and declaration obligation

In Appendix 1-3 in the following groups the substance restrictions with all necessary details are contained:

**Main group 1:** Prohibited Substances

**Main group 2:** Declaration-obligatory substances

**Main group 2.1:** due to occupational medical,  
toxicological or ecological reasons

**Main group 2.2:** due to process technical reasons

### 2.3 Declaration of conformity

The declaration of conformity has to be used:

- on demand e.g. in the scope of the substance release and
- self dependent by the supplier for product changes / manufacturing process.  
Template per Appendix 4 has to be used.

A failure to comply with the prohibition list forces the supplier/manufacturer to make a statement about the reason.

- 1) Implemented in Germany in the Hazardous Substances Ordinance, Appendix 1 can be found e.g. in INANET→Personal→Arbeitssicherheit→Fachdatenbanken.
- 2) Highly combustible substances are permissible in gas cylinders.
- 3) Class I of the Clean Air Act (USA) includes CFC, halogenated hydrocarbons, carbon tetrachlorides as well as 1,1,1 trichloroethylene; class II of the Clean Air Act includes partially halogenated CFC.
- 4) For use in the USA the applicable legislation and specification there (OSHA, TSCA, EPA, DOT etc) have to be used instead of the EU chemical legislation.

**Translated by:**

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## List of substances prohibited and to be declared in chemical indirect process materials

## Legend:

\* Method has to be seen as reference method, other methods have to be declared  
 nz not applicable  
 k.A. no information  
 wm water miscible  
 nwm not water miscible

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### Main group 1: Prohibited substances

Consecutive number	Substance	Limit	Dimension unit	Method *	Scope chemical indirect process material													Source/Legal basis	Reason for exclusion	Airborne limits	Comments
					Metal working fluid		Corrosion protectives	Hydrocarbon cleaners	Aqueous cleaners	Vibratory finishing compounds	Lubricating oils	Lubricating greases	Quenching oils	Aqueous quenching media	VCI-Papers/Foils	Additives for cooling water					
					wm	nwm															
1	Amines, secondary (without Saeamines eg Dicyclohexylamine)	≤ 0,2	% by weight	BGIA-Method	X		X		X	X					X	X	X	TRGS 552/611/615	Generation of carcinogenic nitrosamines	nz	Impurity from production of other amines
2	Amides separating secondary amines	≤ 0,2	% by weight	BGIA-Method	X		X		X	X					X	X	X	TRGS 552/611	Generation of carcinogenic nitrosamines	nz	Fatty acid amides (secondary), degree of purity depends on production procedure
3	Diethanolamine (2,2'-iminodiethanol)	≤ 0,2	% by weight	BGIA-Method	X		X		X	X					X	X	X	TRGS 552/611,615	Generation of carcinogenic nitrosamines	nz	Impurity from production of other amines
4	Carcinogenic N-nitrosamines	≤ 1	mg/l	BGI 505, No.36	X	X	X		X	X					X	X	X	GefStoffV, TRGS 611	carcinogenic compounds	Limits according to TRGS 552	
5	Morpholine and derivatives releasing morpholine	≤ 0,2	% by weight	BGIA-Method 8030	X	X	X	X	X	X	X	X	X	X	X	X	X	TRGS 552/611/615	Generation of carcinogenic nitrosamines	nz	Impurity from production of other amines
6	Nitrite and derivatives releasing nitrite (eg 2-bromo-2-nitro-1,3-propanediol, Tris(hydroxymethyl)nitromethane)	≤ 10	mg/l	DIN 38407-E7	X		X		X	X					X	X	X	GefStoffV § 15, Anh. 4 Nr. 19; TRGS611,615	Generation of carcinogenic nitrosamines	nz	Impurity from production
7	Benzo(a)-pyrene (BaP), as lead substance for polycyclic aromatic hydrocarbons (PAH/PAK)	≤ 50 BaP	mg/l	EPA Method 610	X	X	X	X			X	X	X					21. ATP and GefStoffV §35	carcinogenic	0,002 mg/m <sup>3</sup>	may be build up during operation, regularly control is necessary
		≤ 3 DMSO-extract of the base oil (PAH/PAK)	% by weight	IP 346	X	X	X	X			X	X	X								
8	Polychlorinated biphenyls PCB (42 % Cl)	≤ 4	mg/l	NIOSH 5503.GC-ECD	X	X	X	X			X	X	X					Altst-VO, TRGS 905	Reproductive toxic cat. 3, danger of formation of Dioxin during combustion	1,1 mg/m <sup>3</sup>	
9	Polychlorinated biphenyls PCB (54 % Cl)	≤ 4	mg/l	NIOSH 5503.GC-ECD	X	X	X	X			X	X	X					Altst-VO, TRGS 905	Reproductive toxic cat. 3, danger of formation of Dioxin during combustion	0,7 mg/m <sup>3</sup>	
10	Polychlorinated terphenyls PCT	≤ 4	mg/l	NIOSH 5503.GC-ECD	X	X	X	X			X	X	X					Altst-VO,		nz	
11	Benzotriazole	≤ 0,5	mg/l	k.A.		X															
12	Total aromatic content	≤ 10 (of base oil)	% by weight	DIN IEC 60590	X	X	X	X										IP 346	toxicological relevant	nz	
13	Chlorinated paraffins, short chain (C <sub>6</sub> -C <sub>13</sub> )	≤ 20 bz. auf Cl	mg/l	k.A.	X	X	X	X			X	X	X					2002/45/EC, Chem/VerbotsV, EU Water Framework Directive 2000/60/EC	PBT-substance and danger of generation of Dioxin during combustion, carcinogenic cat. 3, chlorine content may cause problems in production chain	nz	
14	Phenol	≤ 20	mg/l	k.A.	X	X	X	X	X	X								29. adaption guideline 2004/73/EC	mutagenous, categorie 3	19 mg/m <sup>3</sup>	only as impurity
15	Nonylphenol, Nonylphenoethoxilates	≤ 0,1	% by weight	DIN 38407-E23 T2	X	X	X	X	X	X								EU Water Framework Directive 2000/60/EC	PBT-Stoff, reproductive toxic cat. 3	nz	legal regulation since 17 january 2005
16	Bis-(2-ethylhexyl)-phthalate (DEHP)	≤ 0,1	% by weight	k.A.	X	X					X	X						EG-Classification, 28. adaption guideline 2001/59/EC	reproductive toxic	10 mg/m <sup>3</sup>	
17	Metal compounds / metals: As, Pb, Ni, Hg, Cd, Sn, Be, Co, Cr(VI), Ti, Sb	≤ 10 each	mg/l	ICP	X	X	X	X	X	X	X	X	X	X	X	X	X	Abwasser-VO	partially toxicological relevant	nz	only as impurity
18	Barium salts except barium sulfate	≤ 10.000 based on Ba	mg/l eg ppm	DIN 38407-E22 (ICP)	X	X	X				X	X						Abwasser-VO	poisonous heavy metal salts (eg Bariumsulfonate)	0,5 mg/m <sup>3</sup> (soluble substances)	in form of Ba-sulfonate, exceptions may be allowed by the responsible specialist for these media (for greases and oils)
19	Copper and copper compounds	≤ 10	mg/l	ICP	X	X			X	X								TRGS 900	Metal-contact corrosion (local cells)	1 mg/m <sup>3</sup>	
20	organic silicon compounds	≤ 10	mg/l	ICP	X	X	X	X	X	X	X	X	X	X	X	X	X	nz	nz	nz	Extraordinary release possible by the central tribology/chemistry
21	Ethylendiamintetraacetic acid and salts (EDTA)	≤ 10	mg/l	Polarograph	X		X		X	X								EU Existing Substances Regulation, 793/93/EC	complexing properties, problematical eg for waste water treatment	nz	To assure the harmlessness for waste water treatment

## List of substances in chemical indirect process materials to be declared due to occupational medicine, toxicological or ecological reasons

Legend: nz not applicable

Main group 2.1: Substances to be declared due to occupational medicine, toxicological or ecological reasons																
Consecutive number	Substance	Scope chemical indirect process material											Reason for declaration	Airborne limits	Comments	
		Metal working fluid		Corrosion protectives	Hydrocarbon cleaners	Aqueous cleaners	Vibratory finishing compounds	Lubricating oils	Lubricating greases	Quenching oils	Aqueous quenching media	VCI-Papers/Foils				Additives for cooling water
		wm	nwm													
1	Total aromatic content	X	X	X	X					X				IP 346	nz	toxicological relevant
2	2-Aminoethanol (Monoethanolamine)	X		X		X	X				X	X	X	TRGS 900	5,1 mg/m <sup>3</sup>	Airborne limit is kept if airborne limit of coolant is kept (10 mg/m <sup>3</sup> according to TRGS 901 consecutive No. 72 T1)
3	Amines, primary and tertiary, free and chemically bonded, with declaration obligation	X	X	X		X	X	X	X		X	X		Potentially sensitizing	nz	Occupational relevant due to sensitizing
4	Triethanolamine	X	X	X		X	X				X	X		TRGS 900	5 mg/m <sup>3</sup>	
5	Dicyclohexylamine		X	X								X	X	safe amine, acc. to TRGS 615/611	nz	DCHA classified as safe amine
6	Perfluor compounds							X	X					VDA list	nz	
7	Adsorbable organic halogenated compounds (AOX)	X	X	X		X	X				X		X	AbwV Anhang 40	nz	Relevant for waste water treatment if AOX limit is exceeded
8	organic chlorinated compounds	X	X	X	X	X	X	X	X	X	X	X	X	Ozone-relevant	nz	
9	2-Butoxyethanol (Butylglykol)	X	X	X		X	X				X			TRGS 900	98 mg/m <sup>3</sup>	Solubilizer
10	2-(2-Butoxyethoxy)-ethanol (Butyldiglykol)	X	X	X		X	X				X			TRGS 900	100 mg/m <sup>3</sup>	Solubilizer
11	Diethylenglykol	X	X	X		X	X				X			TRGS 900	44 mg/m <sup>3</sup>	Solubilizer, wetting agent
12	Hexylenglykol (2-Methyl-2,4-pentandiol)	X	X	X		X	X				X			TRGS 900	49 mg/m <sup>3</sup>	more exactly
13	Polyalkylen glycoles BuOH started, EO/PO 1:1, molecular weight >2.500 g/mol	X	X	X		X		X	X	X	X			ECETOC Report	nz	ECETOC-Report gives hint to lung-toxicity
14	Polyethylen glycole (medium molecular weight 200-600 g/mol)	X	X	X		X	X				X			TRGS 900	1000 mg/m <sup>3</sup>	
15	Kolophonium							X	X			X		contained in VDA list	nz	
16	Complexing agent, relevant for waste water treatment (exception EDTA)	X	X	X		X	X		X		X		X	Complexing agents relevant for waste water treatment may inhibit the precipitation of heavy metal compounds and may resolve heavy metals from sludges	nz	valid for complexing agents according to <b>DIN 38409 part 26</b> : nitritotriacetic acid, cyclohexanedinitrilo-(1,2)-tetraacetic acid, diethyltrinitrilo-pentaacetic acid, N,N,N',N'-tetrakis(2-hydroxypropyl)-ethylendiamine, bis(aminoethyl)-glycolether-N,N,N',N'-tetraacetic acid, 3,3',3''-nitritotripropionic acid, ethylendinitrilotetraacetic acid, amino-tris-methylenphosphonic acid, ethylendinitrilotetramethylenphosphonic acid, diethyltrinitrilo-pentamethylenphosphonic acid, hydroxyethan-1,1-diphosphonic acid, 2-phosphono-butan-1,2,4-tricarboxylic acid, N,N-bis(carboxymethylen)-1-aminoethan-1,1-diphosphonic acid
17	Nonylphenol, Nonylphenoethoxilates							X	X					PBT substance, but not prohibited in lubricating greases and oils	nz	Exception may be allowed by the responsible specialist for the concerned media
18	Animal raw material BSE-relevant	X	X	X		X	X		X	X			X	(actual valid EC regulation)	nz	not more BSE-relevant after chemical treatment, no save data concerning the danger available
19	Barium compounds			X				X	X					VDA list	nz	

## List of substances in chemical indirect process materials to be declared due to technical process reasons

nz: not applicable

Main group 2.2: Substances to be declared due to technical process reasons															
Consecutive number	Substance	Scope chemical indirect process material										Reason for declaration	Comments		
		Metal working fluid		Corrosion protectives	Hydrocarbon cleaners	Aqueous cleaners	Vibratory finishing compounds	Lubricating oils	Lubricating greases	Quenching oils	Aqueous quenching media			VCI-Papers/Foils	Additives for cooling water
		wm	nwm												
1	Benzotriazol	X	X	X		X	X	X	X	X	X	X	X		Compatibility to non-ferrous metals
2	Benzotriazoles, substituted (eg Toly(triazol)	X	X	X		X	X	X	X	X	X	X	X		Compatibility to non-ferrous metals
3	Boron acid and sodium-tetraborates	X	X	X		X	X		X				X	May cause saltlike precipitates of boron acid salts. Boron acid exists in coolants always in neutralized form.	
4	Boron compounds, organic	X	X	X		X	X		X				X	May cause sticking. Residues may remain if cleaned with hydrocarbon or PER.	
6	CSB-value						X				X	X		Relevant for waste water treatment and foul water	Local regulations for waste water must be obeyed
7	Cu and Cu compounds	X	X	X	X	X	X	X	X	X	X	X	X	Generation of local cells, metal-contact corrosion	Exception may be allowed by the responsible specialist for the concerned media
8	Chlorinated paraffines, medium chained (C <sub>14</sub> - C <sub>17</sub> ) and long chained (>C <sub>18</sub> ) (chlorinated alkanes)	X	X	X					X					Due to corrosive properties	
9	Chlorides	X	X	X	X	X	X	X	X	X	X	X	X	To be declared due to corrosive properties, aim for max. limit is 20 ppm	Test procedure must be informed in connection with limits and precision of measurements
10	organically bonded silicon	X	X	X	X	X	X	X	X	X	X	X	X		
11	Ethylendiamine (complexing agent)	X	X	X	X	X	X				X		X	Due to re-mobilization of heavy metals	
12	Molybdate											X	X	Due to metal-contact corrosion	

