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The QUNDIS list of prohibited substances is part of the QUNDIS conditions of purchase. Raw material of unknown origin and/or composition or raw material the material data of which are not provided may not be used.

1 Substance regulation and prohibitions - product-related

Table 1: List of prohibited substances and preparations

Pure substances and substance groups	maximum concentration in percent	Reference value of the limit value	applications	exceptions restriction limiting	legal regulations
Cadmium and its compounds	0,0100%	homogeneous material	Electrical and electronic equipment, Contact coatings, glasses, semi-conductors,	YES	ElektroGesetz (DE) RoHS (EU)
	Not intentionally added		surfaces	YES	ChemVerbotsV (DE) ChemRRW (CH) REACH (EU) Verordnung Nr. 1199 (DK)
	0,0250%		zinc layer		ChemRRW (CH)
	0,0020%		batteries / - accumulators		BattG (DE) Batterierichtlinie (EU)
	0,0150%		Carbon-zinc batteries Fixed batteries		ChemRRW (CH)
	0,0100%		Colored plastics, stabilized polymers of vinyl chloride (PVC)		ChemVerbotsV (DE) REACH Anh. XVII (EU) ChemRRV (CH) Verordnung Nr. 1199: Grenz-wert 0,0075 %
hexavalent chromium (Cr 6 +) and (Cr6 +) compounds	0,1000%	homogeneous material	Electrical and electronic equipment, Korrosion protection layers	YES	ElektroGesetz (DE) RoHS (EU) ChemRRW (CH)

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Pure substances and substance groups	maximum concentration in percent	Reference value of the limit value	applications	exceptions restriction limiting	legal regulations
Lead and lead compounds	0,1000%	homogeneous material	Electrical and electronic equipment, Alloys, solder, ceramic components, glasses, pigments	YES	ElektroGesetz (DE) RoHS (EU)
	0,0100%	Sum of heavy metals (Cd, Hg, Cr(6+) and Pb)			Verpackungsverordnung
	0,1000%	product	Fixed batteries		ChemRRW (CH)
Mercury and mercury compounds	0,1000%	homogeneous material	Electrical and electronic equipment, Relay, discharge lamps, switches	YES	ElektroGesetz (DE) RoHS (EU)
	0,0005%	product	Batteries and accumulators		BattG (DE) Batterierichtlinie (EU)
	0,0005%	product	Fixed batteries		ChemRRW (CH)
	2,0000%	product	Button cells and batteries composed of button cells		BattG (DE) Batterierichtlinie (EU) ChemRRW (CH)
	0,0005%	product	Alkaline manganese batteries		ChemRRW (CH)
	0,0005%	product	Carbon-zinc batteries		ChemRRW (CH)
Polybromierte Biphenyle (PBB)	0,1000%	homogeneous material	Electrical and electronic equipment, flame retardants		ElektroGesetz (DE) RoHS (EU) ChemRRW (CH)
Polybromierte Diphenylether (PBDE)	0,1000%	homogeneous material	Electrical and electronic equipment, flame retardants		ElektroGesetz (DE) RoHS (EU) ChemRRW (CH)
Octabromdiphenylether (OBDE)	0,1000%	homogeneous material	Electrical and electronic equipment, flame retardants		REACH Anhang XVII (EU) ChemieVerbotsV (DE)

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Pure substances and substance groups	maximum concentration in percent	Reference value of the limit value	applications	exceptions restriction limiting	legal regulations
Pentabromdiphenylether (PeBDE)	0,1000%	homogeneous material	Electrical and electronic equipment, flame retardants		REACH Anhang XVII (EU) ChemieVerbotsV (DE)
Arsenic and its compounds	0,0000%	application	wood protection		REACH Anhang XVII (EU)
Asbestos	Not intentionally added	application	Insulation in buildings, industrial plant and equipment		ChemVerbotsV (DE) REACH Anh. XVII (EU)
Ozone-depleting substance (CFCs, halons, HCFCs, HFCs, HFC)	0,0000%	application	Use in refrigeration and air conditioning systems		ChemOzonSchichtV (DE) OzonRichtlinie (EU) ChemVerbotsV (DE) REACH Anh. XVII (EU) ChemRRW (CH) CAA (USA)
Short-chain chlorinated paraffins (C10-C13)	1,0000%	product	Sealants, plastics and rubber, textiles, paints and varnishes		ChemRRW (CH)
Perfluorooctansulfonat- compounds (PFOS's)	0,0010%	application	textiles		2004/850 (EU)
Polychlorierte Biphenyle (PCBs)	0,0050%	application	Insulation in transformers, Hydraulic fluid, liquid for heat transfer	all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE)
Polychlorierte Terphenyle (PCTs)	0,0000%	application	Insulation in transformers, Hydraulic fluid, liquid for heat transfer	all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE) ChemRRV (CH)
Monomethyldibrom-diphenylmethan (DBBT)	0,0000%	application		all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE) ChemRRW (CH)

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Monomethyldibrom-diphenylmethan (DBBT)	0,0000%	application		all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE) ChemRRV (CH)
Monomethyldichlor-diphenylmethan (Ugilec121 oder Ugilec 21)	0,0000%	application	Residues and decomposition products in the preparation of polymers	all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE) ChemRRV (CH)
Monomethyltetrachlor-diphenylmethan (Ugilec 141)	0,0000%	application	Residues and decomposition products in the preparation of polymers	all applications	REACH Anhang XVII (EU) ChemieVerbotsV (DE) ChemRRV (CH)
azo dyes	0,0030%	product	Colored plastics, Textile and leather products	Not allowed in textiles and leather that come in direct contact with the skin	REACH Anhang XVII (EU)
Nickel and nickel alloys	0,5µg/cm2/Woche	product		Only in direct and sustained the skin contact	REACH Anhang XVII (EU)
Tris(2,3-dibrompropyl)-phosphat	0,0000%	product	flame retardants	Not allowed in textiles and leather that come in direct contact with the skin	REACH Anhang XVII (EU)
Tris-(1-aziridinyl) phosphinoxid	0,0000%	product	flame retardants	Not allowed in textiles and leather that come in direct contact with the skin	REACH Anhang XVII (EU)
Dimethylfumarat	0,1000%	product	biocide		REACH Anhang XVII (EU)
Sulfur hexafluoride (SF6)	0,0000%	application	Insulating and arc extinguishing gas in electrical equipment, Appliances and Components		OzonRichtlinie (EU)
Pentachlorophenol (PCP) are its salts and esters	0,0005%	application	Fungicide-treated wood, Textile and leather materials	In substances and preparations	

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Organotin - compounds	0,1000%	Preparation and product	Paints and Coatings	Not intentionally added to substances and preparations. Not allowed in the product	REACH Anhang XVII (EU)
Tar and creosote	0,0000%	application	Wood and wood materials		ChemVerbotsV (DE) REACH Anh. XVII (EU)
Benzol	0,1000%	application	fuels	In substances and preparations	
Trichlorbenzol	0,1000%	application	Solvent for paints, rubber, waxes, resins and disinfectants	In substances and preparations	
Nonylphenol and nonylphenol ethoxylat compounds	0,1000%	application	Waschlösungen	In substances and preparations	REACH Anh. XVII (EU)
Formaldehyd	Not intentionally added	application	Wood products and textiles		REACH Anhang XVII (EU)
Polychlorierte and polybromierte Dioxine and Furane	0,0000%	product	biocide		
Radioaktive Substanzen	Not intentionally added	product			
Polychlorierte Naphthaline	Not intentionally added	product	biocide	> 3 carbon atoms	ChemRRV (CH)
Aldrin	0,0000%	product	insecticide		2004/850 (EU)
Chlordan	0,0000%	product	insecticide		2004/850 (EU)
Dieldrin	0,0000%	product	insecticide		2004/850 (EU)
Endrin	0,0000%	product	insecticide		2004/850 (EU)
Heptachlor	0,0000%	product	insecticide		2004/850 (EU)
Hexachlorbenzol	0,0000%	product	Pesticides		2004/850 (EU)
Mirex	0,0000%	product	insecticide		2004/850 (EU)
Toxaphen	0,0000%	product	Pesticides		2004/850 (EU)
DDT	0,0000%	product	insecticide		2004/850 (EU)

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Polychlorierte Dibenzodioxine and Dibenzofurane	0,0000%	product			2004/850 (EU)
Chlordecon	0,0000%	product	insecticide		2004/850 (EU)
α-Hexachlorcyclohexan	0,0000%	product	insecticide		2004/850 (EU)
β-Hexachlorcyclohexan	0,0000%	product	insecticide		2004/850 (EU)
Lindan	0,0000%	product	insecticide		2004/850 (EU)
Endosulfan	0,0000%	product	insecticide		2004/850 (EU)
Hexabromcyclododecan	0,0000%	product	insecticide		2004/850 (EU)
Nitrosamine (N-Nitroso-diethanolamin)	0,20%	product			TRGS 611
Isothiazolinone	0,1000%	homogeneous material	biocide		Qundis
Mercaptobenzothiazol	0,1000%	homogeneous material	Vulcanization accelerator and anti-aging agent		Qundis
Polyzyklische aromatische Kohlenwasserstoffe (PAK)	0,0010%	Sum of all existing PAKS	Pigmente		Qundis
Morpholin	0,1000%	homogeneous material	Rubber accelerators corrosion inhibitor		Qundis
Nitrit	0,0020%	homogeneous material	Food additive		Qundis
Kresylphosphat	0,5000%	homogeneous material	Flame retardant		Qundis
Dikresylphosphat	0,5000%	homogeneous material	Flame retardant		Qundis
Trikresylphosphate	0,5000%	homogeneous material	Flame retardants, lubricants, plasticizers		Qundis
Methylenchlorid	0,1000%	application	Paint remover, making polyurethane foams		Qundis
Tetrachlorethylen (PER)	0,1000%	application	Solvent, Dry Cleaning		Qundis

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Tetrachlormethan	0,1000%	application			Qundis
Trichlorethylen (TRI)	0,1000%	application	Cleaning, degreasing and extraction agent		Qundis
Acrylonitril	0,1000%	application	Component for adhesives, antioxidants, emulsifiers and solvents.		Qundis
Butadien	0,1000%	application	synthetic rubber		Qundis
Vinylchlorid	0,1000%	application	Manufacture of polyvinyl chloride		Qundis
Trifluralin	0,1000%	application	residual herbicide		Qundis
Thallium	0,1000%	application			Qundis
Campechlor	0,1000%	application			Qundis
Cyclohexan	0,1000%	application		adhesives	Qundis
Diethylenglykolmono-methylether	0,1000%	application		Colors, cleaner	Qundis
Diethylenglykolmono-butylether	0,1000%	application		Colors, cleaner in spray cans	Qundis
Toluol	0,1000%	application		Adhesives and paints	Qundis
Methylendiisocyanate (MDI)	0,1000%	application		mixture	Qundis
Hexachlorethan		application			Qundis
2-Naphthylamin	0,1000%	application		mixture	Qundis
Benzidin	0,1000%	application		mixture	Qundis
4-Nitrobiphenyl	0,1000%	application		mixture	Qundis

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2 Substance restriction and prohibitions - packaging

Table 1: Substance restrictions - packaging

Pure compounds and substance groups	Percentage of maximum concentrations in the homogenous material
Heavy metal total (Cd, Hg, Cr(6+) and Pb)	0.01%
Dimethyl fumarate	0%
Arsenic compounds in wood packaging	0.001%
Formaldehyde	0.10%
Industrial chemicals	
Polyvinylchloride	0.1%
Polystyrene in consumer goods	0%

2.1 Directive on the quality of water intended for human consumption (drinking water directive TrinkwV 2001)

All suppliers of raw material, material, products or goods, which come into contact with the foodstuff of drinking water in the course of using Qundis products, shall comply with the requirements of the German drinking water directive in its current version. In this context, clause 17 "Requirements for facilities for the collection, processing or distribution of drinking water" is of special relevance.

2.2 Halogen-free

All suppliers of raw material, material, products or goods should abstain from using compounds containing halogens. In case the required product properties can only be guaranteed by using compounds containing halogens, the use thereof shall be discussed with the Development Department and with the Quality Management division in advance.

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2.3 Index of substances subject to authorisation

Inclusion of a substance from the list of substances of particular concern in the appendix XIV of the REACH regulation results in an authorisation obligation for this substance at the end of the procedure. After a transitional period, the substance may only be used if permission is granted or its use will be prohibited. Table 6 shows the current appendix XIV.

Please refer to point 2, Definitions and Abbreviations for explanations of the terms Application Deadline and Expiry Date.

Table 2: REACH appendix XIV (17/04/2013)

Pure substance and substance group	CAS number	closing date for applications	expiration date
5-tert-Butyl-2,4,6-trinitro-m-xylol	81-15-2	21.2.2013	21.8.2014
4,4'-Diaminodiphenylmethan	101-77-9	21.2.2013	21.8.2014
Hexabromcyclododekan	3194-55-6, 25637-99-4, 134237-50-6, 134237-51-7, 134237-52-8	21.2.2014	21.8.2015
Bis(2-ethylhexyl)phthalat (DEHP)	117-81-7	21.8.2013	21.2.2015
Benzylbutylphthalat (BBP)	85-68-7	21.8.2013	21.2.2015
Dibutylphthalat (DBP)	84-74-2	21.8.2013	21.2.2015
Diisobutylphthalat (DIBP)	84-69-5	21.8.2013	21.2.2015
Diarsentrioxid	1327-53-3	21.11.2013	21.5.2015
Diarsenpentaoxid	1303-28-2	21.11.2013	21.5.2015
Bleichromat	7758-97-6	21.11.2013	21.5.2015
Bleisulfochromatgelb	1344-37-2	21.11.2013	21.5.2015
Bleichromatmolybdatsulfatrot	12656-85-8	21.11.2013	21.5.2015
Tris(2-chlorethyl)phosphat (TCEP)	115-96-8	21.2.2014	21.8.2015
2,4-Dinitrotoluol (2,4- DNT)	121-14-2	21.2.2014	21.8.2015
Trichlorethylen	79-01-6	21.10.2014	21.4.2016
Chromtrioxid	1333-82-0	21.3.2016	21.9.2017
Chromsäure, Dichromsäure	7738-94-5, 13530-68-2	21.3.2016	21.9.2017
Natriumdichromat	7789-12-0	21.3.2016	21.9.2017
Kaliumdichromat	7778-50-9	21.3.2016	21.9.2017
Ammoniumdichromat	7789-09-5	21.3.2016	21.9.2017
Kaliumchromat	7789-00-6	21.3.2016	21.9.2017
Natriumchromat	7775-11-3	21.3.2016	21.9.2017

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3 List of substances subject to notification requirements

The current SVHC substances list may be gathered from:

http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp

According to clause 33 of the REACH regulation, each supplier is obliged to undertake the following:

(1) Any supplier of an article containing a substance meeting the criteria of Article 57, which has been identified in accordance with Article 59 (1) in a concentration above 0,1 % mass fraction (w/w) shall provide the recipient of the article with sufficient information as is available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

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 Table 3: **Substances subject to notification** beyond the SVHC candidate list.

Substance / Group	CAS number	Limit (%)	Reference
Arsenic / arsenic compound	7440-38-2	0,1	application
Beryllium/Beryllium compound	7440-41-7	0,1	application
Lead / Lead compound	7439-92-1	0,1	homogeneous material
Cadmium/Cadmium compound	7440-43-9	0,01	homogeneous material
Chromium(VI)- compound		0,1	homogeneous material
Mercury / mercury compound	7439-97-6	0,1	homogeneous material
Polybromierte Biphenyle (PBBs)		0,1	homogeneous material
Polybromierte Diphenylether (PBDEs), in particular - Pentabromdiphenylether (PentaBDE) - Oktabromdiphenylether (OktaBDE) - Dekabromdiphenylether (DekaBDE)	32534-81-9, 32536-52-0, 1163-19-5	0,1	homogeneous material
Radioactive substances		0	
Other brominated flame retardants than PBBs, PBDEs and HBCCD		0,1	product
Antimontrioxid		0,1	application
Azo dyes, the carcinogenic may release aromatic amines		0,1	application
asbestos	1332-21-4	0,1	application
Synthetic mineral fibers made vitreous (silicate) fibers with a mass content of over 18% of oxides of sodium, potassium, Calcium, magnesium or barium consist		0,1	application
Acrylamid	79-06-1	0,1	application
Formaldehyd	50-00-0	0,1 ml/m3	application
Pentachlorophenol (PCP), pentachlorophenol, Sodium salt. Other PCP salts and compounds	87-86-5, 131-52-2	0,0005	application
PFOS (Perfluoroktansulfonsäure) and their metal salts		0,1	application
Polychlorierte Biphenyle (PCBs) Polychlorierte Terphenyle (PCTs) Polychlorierte Naphthaline (PCNs)		0,005	application
FCKW and Halone		1	application
HFCKW		1	application
FKW		1	application
HFKW		1	application
HFBKW (C1 bis C3)		1	application
sulfur hexafluoride (SF6)	2551-62-4	0,1	application

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Appendix 1: Exceptions from the RoHS Directive

Applications exempted from the restriction in Article 4(1)	
Exemption	Scope and dates of applicability
Lead in Glass	
5(a) Lead in glass of cathode ray tubes	
5(b) Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	
7(c)-I Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	
13(a) Lead in white glasses used for optical applications	
26 Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June 2011
29 Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	
32 Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	
Lead in solders	
7(a) Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	
7(b) Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	
14 Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Expired on 1 January 2011
15 Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	
24 Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	
20 Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June 2011
27 Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expired on 24 September 2010
31 Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	
33 Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	
Lead as an alloying	
6(a) Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	
6(b) Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	
6(c) Copper alloy containing up to 4 % lead by weight	
others	
7(c)-II Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	
7(c)-III Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Expired on 1 January 2013
7(c)-IV Lead in PZT based dielectric ceramic materials for capacitors that are part of integrated circuits or discrete semiconductors	Expired on 21. Juli 2016
9(b) Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	
11(a) Lead used in C-press compliant pin connector systems	Expired on 24 September 2010
11(b) Lead used in other than C-press compliant pin connector systems	Expired on 1 January 2013
12 Lead as a coating material for the thermal conduction module C-	Expired on 24 September 2010

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Applications exempted from the restriction in Article 4(1)	
Exemption	Scope and dates of applicability
others	
16 Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September 2013.
17 Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	
18(a) Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba)2MgSi2O7:Pb)	Expired on 1 January 2011
18(b) Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb)	
19 Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Expires on 1 June 2011
23 Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	Expires on 24 September 2010.
25 Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	
34 Lead in cermet-based trimmer potentiometer elements	
37 Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	
Cadmium	
8(a) Cadmium and its compounds in one shot pellet type thermal cut-offs	Expires on 1 January 2012
8(b) Cadmium and its compounds in electrical contacts	
30 Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	
38 Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	
39 Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm ² of light-emitting area) for use in solid state illumination or display systems	Expires on 1 July 2014
40) Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Expires on 31. December 2013
hexavalent chromium	
9 Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	
Cadmium & Lead	
13(b) Cadmium and lead in filter glasses and glasses used for reflectance standards	
21 Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	
mercury	
36 Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expired on 1 July 2010
1 - 4) in lamps	different expiration dates