

List of prohibited substances – Electronics

The substances listed below are prohibited by law or by Heidelberg internal restrictions in the relevant applications.
The list will be updated continuously and has to be taken into account by the suppliers and users. All amendments are marked in **red**.

Substance	CAS NR.	Limit	prohibited	Exception	Regulation
1-Methyl-2-pyrrolidone	872-50-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
1,2-dichloroethane	107-06-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
1,2,3-Trichloropropane	96-18-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
2-Ethoxyethyl acetate	111-15-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
2-Methoxyethanol	109-86-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
2-Naphthylamine	91-59-8	< 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
4-Aminobiphenyl	92-67-1	< 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII
4-Nitrobiphenyl	92-93-3	< 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII
Acenaphthene	83-32-9	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Acenaphthylene	208-96-8	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Acetic acid, lead salt, basic	51404-69-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Acrylamide	79-06-1	< 0,1 Gew. %	Grouting applications		EU REACH-VO. Anh. XVII
Actinolite	77536-66-4	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Ammonium dichromate	7789-09-5	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV EU REACH-VO. Anh. XIV (Kandidatenliste)
Amosite	12172-73-5	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Anthophyllite	77536-67-5	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Anthracene	120-12-7	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Anthracene	120-12-7	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Arsenic acid	7778-39-4	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Arsenic acid triethyl ester	15606-95-8	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Arsenic compounds		= 0 Gew. %	As substances or in mixtures a) intended for use to prevent the fouling by micro-organisms, plants or animals of any totally or partly submerged appliances or equipment, b) intended for use in the treatment of industrial waters, c) used in preservation of wood		EU REACH-VO. Anh. XVII
Benzidine	92-87-5	< 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII

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Benzo(a)anthracene	56-55-3	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(a)pyrene	50-32-8	<= 1 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(b)fluoranthene	205-99-2	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(e)pyrene	192-97-2	<= 1 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(ghi)perylene	191-42-2	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(j)fluoranthene	205-82-3	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Benzo(k)fluoranthene	207-08-9	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Biocidal products		= 0 Gew. %	all applications	Biocidal products can be used if they are authorised in accordance with Regulation (EU) No 528/2012	EU: VO 528/2012 [Biozid]
Bis(2-methoxyethyl) ether	111-96-6	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Bis(2-methoxyethyl) phthalate	117-82-8	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Boric acid	10043-35-3 (11113-50-1)	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cadmium	7440-43-9	<= 100 mg/kg	in packaging or packaging material		CH ChemRRV, Anhang D: VerpackV
Cadmium	7440-43-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cadmium and cadmium compounds	7440-43-9	<= 0,01 Gew. %	electrical and electronic equipment		EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Cadmium and its compounds in one shot pellet type thermal cut-offs in spare parts for EEE placed on the market before 1 January 2012	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Cadmium and its compounds in electrical contacts	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			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]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Lead, cadmium and mercury in infra-red light detectors.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Lead and cadmium in ion selective electrodes including glass of pH electrodes.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9			Cadmium in helium-cadmium lasers.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Cadmium and cadmium compounds	7440-43-9	< 0,1 Gew. %	Paints and varnishes with a high content of zinc		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Cadmium and cadmium compounds	7440-43-9	<= 0,01 Gew. %	giving colour to articles manufactured from the substances and mixtures listed in REACH ANNEX XVII, Nr. 23		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Cadmium and cadmium compounds	7440-43-9			electrical contacts in any sector of use, where that is necessary to ensure the reliability required of the apparatus on which they are installed.	EU REACH-VO. Anh. XVII

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Cadmium and cadmium compounds	7440-43-9	<= 0,01 Gew. %	stabilising mixtures or articles manufactured from polymers or copolymers of vinyl chloride as to packaging material, textile fabrics, tubes and pipes, coating of steel sheet	mixtures and articles using cadmium-based stabilisers for safety reasons	EU REACH-VO. Anh. XVII
Cadmium and cadmium compounds	7440-43-9	<= 0,01 Gew. %	Hard solder		EU REACH-VO. Anh. XVII
Cadmium oxide	1306-19-0	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cadmium sulphide	1306-23-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Calcium arsenate	7778-44-1	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Chlordecone	143-50-0	= 0 Gew. %	all applications		EU: VO 850/2004 (VO 757/2010)
Chromium trioxide	1333-82-0	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV EU REACH-VO. Anh. XIV (Kandidatenliste)
Chrysene	218-01-9	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Chrysotile	12001-29-5	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
CMR-Substances and Azocolourants listed in REACH Regulation Appendices 1-6, 8 and 9		= 0 Gew. %	all applications		EU REACH-VO. Anlagen 1-6, 8 und 9
Cobalt dichloride	7646-79-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cobalt(II)-carbonate	513-79-1	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cobalt(II)-dinitrate	10141-05-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Cobalt(II)-sulphate	10124-43-3	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Crocidolite	12001-28-4	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
DecaBDE (Decabromodiphenylether)	1163-19-5	<= 0,1 Gew. %	electrical and electronic equipment		CH ChemRRV, Anhang EU: RL 2011/65 (RoHS) USA: State of Washington (House Bill 1024), State of Maine (Chapter 629, LD 1790).
Di-μ-oxo-di-n-butylstanniohydroxyborane/ Dibutyltin hydrogen borate C 8 H 19 BO 3 Sn (DBB)	75113-37-0	<= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII
Diarsenic trioxide	1327-53-3	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV EU REACH-VO. Anh. XIV (Kandidatenliste)
Dibenzo(ah)anthracene	53-70-3	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Diboron trioxide	1303-86-2	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Dibutyltin dichloride (DBTC)	683-18-1	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Dichromium tris(chromate)	24613-89-6	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Dipentyl phthalate (DPP)	131-18-0	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Diphenylether, octabromo derivative	32536-52-0	< 0,1 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Fluoranthene	206-44-0	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Fluorene	86-73-7	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Fluorinated greenhouse gases		= 0 Gew. %	all applications		EU: VO 842/2006
Formamide	75-12-7	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Fully halogenated CFCs		= 0 Gew. %	all applications		EU: VO 1005/2009 USA: Clean Air Act
Halons		= 0 Gew. %	all applications		EU: VO 1005/2009 USA: Clean Air Act
Heptabromodiphenyl ether	207122-16-5	< 0,001 Gew. %	in substances, preparations, articles or as constituents of the flame-retarded parts of articles.		EU: VO 850/2004 (VO 757/2010)

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Substance	CAS NR.	Limit	prohibited	Exception	Regulation
Heptabromodiphenyl ether	207122-16-5	< 0,1 Gew. %		when produced partially or fully from recycled materials or materials from waste prepared for re-use;	EU: VO 850/2004 (VO 757/2010)
Hexabromobiphenyl	36355-01-08	= 0 Gew. %	all applications		EU: VO 850/2004 (VO 757/2010)
Hexabromocyclododecane (HBCDD) CAS No: 3194-55-6 25637-99-4 alpha-hexabromocyclododecane CAS No: 134237-50-6, beta-hexabromocyclododecane CAS No: 134237-51-7 gamma-hexabromocyclododecane CAS No: 134237-52-8	25637-99-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV EU REACH-VO. Anh. XIV (Kandidatenliste)
Hexabromodiphenyl ether	207122-15-4	< 0,001 Gew. %	in substances, preparations, articles or as constituents of the flame-retarded parts of articles.		EU: VO 850/2004 (VO 757/2010)
Hexabromodiphenyl ether	207122-15-4	< 0,1 Gew. %		articles and preparations when produced partially or fully from recycled materials or materials from waste prepared for re-use	EU: VO 850/2004 (VO 757/2010)
Hexachlorocyclohexanes	608-73-1, 58-89-9	= 0 Gew. %	all applications		EU: VO 850/2004 (VO 757/2010)
Hexavalent chromium	18540-29-9	<= 0,1 Gew. %	electrical and electronic equipment		EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Hexavalent chromium	18540-29-9			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	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Hexavalent chromium	18540-29-9	<= 100 mg/kg	in packaging and packaging material		CH ChemRRV, Anhang D: VerpackV
Hydrazine	302-01-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Hydrobromofluoromethanes, -ethanes or -propanes		= 0 Gew. %	all applications		EU: VO 1005/2009 USA: Clean Air Act
Indeno(1-,2,3-cd)pyrene	193-39-5	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Lead	7439-92-1	<= 0,1 Gew. %	in electrical and electronic equipment		EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 0,1 Gew. %		(5a) Lead in glass of cathode ray tubes	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 0,2 Gew. %		(5b) Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 0,35 Gew. %		(6a) Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 0,4 Gew. %		(6b) Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 4 Gew. %		(6c) Copper alloy containing up to 4 % lead by weight	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(7a) Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(7b) Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for tele-communications	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]

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Substance	CAS NR.	Limit	prohibited	Exception	Regulation
Lead	7439-92-1			(7c-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	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(7c-II) Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC [may be used in spare parts for EEE placed on the market before 1 January 2013]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(7c-IV) Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors'	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(9b) Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(11a) Lead used in C-press compliant pin connector systems may be used in spare parts for EEE placed on the market before 24 September 2010	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			11(b) Lead used in other than C-press compliant pin connector systems may be used in spare parts for EEE placed on the market before 1 January 2013	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(12) Lead as a coating material for the thermal conduction module C-ring may be used in spare parts for EEE placed on the market before 24 September 2010	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			13(a) Lead in white glasses used for optical applications	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			13(b) Cadmium and lead in filter glasses and glasses used for reflectance standards	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(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 may be used in spare parts for EEE placed on the market before 1 January 2011	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(15) Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in linear incandescent lamps with silicate coated tubes [Expires on 1 September 2013]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less may be used in spare parts for EEE placed on the market before 24 September 2010	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]

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Lead	7439-92-1			Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(34) Lead in cermet-based trimmer potentiometer elements	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			(37) Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead and cadmium in ion selective electrodes including glass of pH electrodes.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead anodes in electrochemical oxygen sensors.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead, cadmium and mercury in infra-red light detectors.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in counterweights.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in single crystal piezoelectric materials for ultrasonic transducers.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in solders for bonding to ultrasonic transducers.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in solders of high performance infrared imaging modules to detect in the range 8-14 µm.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1			Lead in Liquid crystal on silicon (LCoS) displays.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Lead	7439-92-1	<= 100 mg/kg	in packaging or packaging material		CH ChemRRV, Anhang D: VerpackV
Lead bis(tetrafluoroborate)	13814-96-5	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead cyanamidate	20837-86-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead hydrogen arsenate	7784-40-9	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead monoxide (lead oxide)	1317-36-8	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead titanium trioxide	12060-00-3	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead titanium zirconium oxide	12626-81-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Lead(II) bis(methanesulfonate)	17570-76-2	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Mercury	7439-97-6	<= 0,0005 Gew. %	in batteries and accumulators		EU: RL 2006/66 über Batterien und Akkumulatoren
Mercury	7439-97-6	<= 100 mg/kg	packaging or packaging material		CH ChemRRV, Anhang D: VerpackV
Mercury	7439-97-6	= 0 Gew. %	in measuring and control equipment where the EU RoHS directive does not apply (equipment works without electricity)		CH ChemRRV, Anhang
Mercury and its compounds	7439-97-6 u.a.	<= 0,1 Gew. %	electrical and electronic equipment		EU: RL 2011/65 (EU-RL 2002/95) [RoHS]

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Mercury and its compounds	7439-97-6 u.a.	<= 2,5 mg		Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W: 2,5 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 5 mg		Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 50 W and < 150 per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 15 mg		Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 150 W: 15 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 7 mg		Mercury in single capped (compact) fluorescent lamps for general lighting purpose with circular or square structural shape and tube diameter ≤ 17 mm per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 5 mg		Mercury in single capped (compact) fluorescent lamps for special purposes: 5 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 4 mg		Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 4 mg may be used per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 3 mg		Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 5 mg [3 mg may be used per lamp after 31 December 2011]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 3,5 mg		Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): [3,5 mg per lamp.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 3,5 mg		Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 3,5 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 5 mg		Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with long lifetime (≥ 25 000 h): 5 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 15 mg		Mercury in other fluorescent lamps not exceeding (per lamp): Non-linear halophosphate lamps (all diameters): 15 mg [Expires on 13 April 2016]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]

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Substance	CAS NR.	Limit	prohibited	Exception	Regulation
Mercury and its compounds	7439-97-6 u.a.	<= 15 mg		Mercury in other fluorescent lamps not exceeding (per lamp): Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) 15 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 15 mg		Mercury in other fluorescent lamps not exceeding (per lamp): Lamps for other general lighting and special purposes (e.g. induction lamps) 15 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 3,5 mg		Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Short length (\leq 500 mm)	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 5 mg		Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Medium length ($>$ 500 mm and \leq 1 500 mm) 5 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 13 mg		Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp): Long length ($>$ 1 500 mm) 13 mg per lamp.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 15 mg		Mercury in other low pressure discharge lamps (per lamp): 15 mg per lamp	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 30 mg		Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: P \leq 155 W 30 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 40 mg		Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: 155 W < P \leq 405 W 40 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 40 mg		Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60: P > 405 W 40 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 25 mg		Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): P \leq 155 W [25 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 30 mg		Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): 155 W < P \leq 405 W 30 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]

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Mercury and its compounds	7439-97-6 u.a.	<= 40 mg		Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): P > 405 W 40 mg per burner	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.			Mercury in High Pressure Mercury (vapour) lamps (HPMV) [Expires on 13 April 2015]	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.			Mercury in metal halide lamps (MH)	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.			Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.			Lead, cadmium and mercury in infra-red light detectors.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.			Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	<= 20 mg		Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay.	EU: RL 2011/65 (EU-RL 2002/95) [RoHS]
Mercury and its compounds	7439-97-6 u.a.	= 0 Gew. %	as substances or in mixtures to prevent the fouling by micro-organisms, plants or animals of any totally or partly submerged appliances or equipment; as substances or in mixtures in the treatment of industrial waters, irrespective of their use.		EU REACH-VO. Anh. XVII
Monomethyl-dibromo-diphenyl methane	99688-47-8	= 0 Gew. %	all applications		EU REACH-VO. Anh. XVII
Monomethyl-dichloro-diphenyl methane	81161-70-8	= 0 Gew. %	all applications		EU REACH-VO. Anh. XVII
Monomethyl-tetrachloro-diphenyl methane	76253-60-6	= 0 Gew. %	all applications		EU REACH-VO. Anh. XVII
N,N-dimethylformamide	68-12-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Naphthalene	91-20-3	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Orange lead (lead tetroxide)	1314-41-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Organostannic compounds		= 0 Gew. %	as substances or in mixtures a) acting as biocide in free association paint, b) acting as biocide to prevent the fouling by micro-organisms, plants or animals in any totally or partly submerged appliance or equipment c) intended for use in the treatment of industrial waters.		EU REACH-VO. Anh. XVII
PBB (polybrominated biphenyl)		<= 0,1 Gew. %	electrical and electronic equipment		CH ChemRRV, Anhang EU: RL 2011/65 (RoHS)
PBDE (polybrominated diphenyl-ether)		<= 0,1 Gew. %	electrical and electronic equipment		CH ChemRRV, Anhang EU: RL 2011/65 (RoHS)

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Substance	CAS NR.	Limit	prohibited	Exception	Regulation
Pentabromodiphenyl ether	32534-81-9	< 0,001 Gew. %	in substances, preparations, articles or as constituents of the flame-retarded parts of articles.		EU: VO 850/2004 (VO 757/2010)
Pentabromodiphenyl ether	32534-81-9	< 0,1 Gew. %		articles and preparations when produced partially or fully from recycled materials or materials from waste prepared for re-use	EU: VO 850/2004 (VO 757/2010)
Pentachlorophenol	87-86-5	< 0,1 Gew. %	all applications		EU REACH-VO. Anh. XVII
Pentalead tetraoxide sulphate	12065-90-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Perfluorooctane sulfonic acid and its derivatives (PFOS)	45298-90-6	< 0,001 Gew. %	in substances and preparations		EU: VO 850/2004 (VO 757/2010)
Perfluorooctane sulfonic acid and its derivatives (PFOS)	45298-90-6	< 1 µg / m ²		for textiles or other coated materials	EU: VO 850/2004 (VO 757/2010)
Phenanthrene	85-01-8	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Pich, coal tar, high temp.	65996-93-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Polychlorinated Biphenyls (PCB)	1336-36-3	= 0 Gew. %	all applications		EU: VO 850/2004 (VO 757/2010)
Polychlorinated terphenyls (PCTs)	61788-33-8	<= 0,005 Gew. %	all applications		EU REACH-VO. Anh. XVII
Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)
Pyrene	129-00-0	<= 10 mg/kg	all applications		D: GS-Zeichen (AtAV)
Radioactive substances		<= 0,1 Bq/g	all applications		HDM
Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for "toxicity for reproduction" Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082- 001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Silicic acid, lead salt	11120-22-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Strontium chromate	7789-06-2	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Tetraboron disodium heptaoxide, hydrate	1330-43-4, (wasserfrei) 12179-04-3, (Pentahydrat) 1303-96-4, (Decahydrat)	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Tetraboron disodium heptaoxide, hydrate	12267-73-1	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Tetrabromodiphenyl ether	40088-47-9	< 0,001 Gew. %	in substances, preparations, articles or as constituents of the flame-retarded parts of articles.		EU: VO 850/2004 (VO 757/2010)
Tetrabromodiphenyl ether	40088-47-9	< 0,1 Gew. %		in articles and preparations when produced partially or fully from recycled materials or materials from waste prepared for re-use	EU: VO 850/2004 (VO 757/2010)
Tetralead trioxide sulphate	12202-17-4	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Tremolite	77536-68-6	= 0 Gew. %	all applications		CH ChemRRV, Anhang EU REACH-VO. Anh. XVII
Tri-substituted organostannic compounds:		< 0,1 Gew. %	articles		EU REACH-VO. Anh. XVII
Trichlorobenzene	120-82-1	< 0,1 Gew. %	as substances or in mixtures		EU REACH-VO. Anh. XVII

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Trilead bis(carbonate)dihydroxide	1319-46-6	= 0,1 Gew. %	all applications		EU REACH-VO. Anh. XIV (Kandidatenliste)
Trilead diarsenate	3687-31-8	= 0,1 Gew. %			EU REACH-VO. Anh. XIV (Kandidatenliste)