

SCHAAF Chemical and Material Blacklist

1. Purpose

The Chemical and Material Blacklist listing substances that are prohibited, restricted or targeted for reduction with the aim of phasing out their use. Furthermore, it ensures that undesirable substances will not be applied unless they have been thoroughly considered.

2. Area of Validity

The Chemical and Material Blacklist is applicable for chemicals and materials used in our products, for testing, maintaining or servicing our products, in our production and in our buildings, in all business units of SCHAAF GmbH & Co. KG.

This applies immediately to all chemicals and materials. All office materials are excluded. The requirements in the SCHAAF Chemical and Material Blacklist are to be considered as minimum requirements. All relevant national and international laws and regulations are to be observed in the assessment and approval of chemicals and materials.

3. Conflict Material

Using conflict materials coming from DRC-region (Democratic Republic of the Congo, Angola, Burundi, Central African Republic, Republic Kongo, Ruanda, South Sudan, Tanzania, Uganda and Zambia) must be prevented. Therefore, we asked all our suppliers if they use conflict materials from DRC-region.

The critical materials are tantalum, tin, tungsten, ores from which they are extracted and gold.



Definitions

Chemical	A chemical element or its compounds
Hazardous Substance	Any potentially toxic, harmful, irritating, corrosive or asphyxiant substance or a mixture thereof which can enter the human body or be harmful to the environment during its normal intended use, including the entire spectrum of chemicals, e.g. soaps, oils, acids, etc.
Material	A pure chemical or a homogenous mixture of chemicals. Material in this context refers to all materials containing a potentially prohibited or regulated compound as an ingredient
Ingredient	A chemical that is part of a mixture
CAS No.	Unambiguous number that identifies a particular chemical. The Chemical Abstract Service is part of the American Chemical Society and maintains a database of chemical compounds and sequences. The CAS database currently contains over 55 million different organic and inorganic chemical compounds. Each CAS entry is identified by its CAS Registry Number, or CAS Number for short
MSDS	The Material Safety Data Sheet is a written document that outlines ingredients and classification information and procedures for handling and working with chemicals in a safe way. The MSDS must be outlined according to applicable legislation
Technical Data Sheet (TDS)	Information from the supplier on the proper use of the chemical product
HSE Assessment	Assessment that evaluates Health, Safety and Environmental risks
Classification	Systems that identify the hazards of a chemical. Tables 1, 2 and 3 in the Chemical and Material Blacklist are based on classification rules according to the UN Globally Harmonised System (GHS)
Dangerous Goods	Chemicals or materials are to be transported as Dangerous Goods if section 14 in the MSDS refers to any applicable transport regulation. E.g. ADR (Transport by Road) RID (Transport by Railway) IMDG (Transport by Sea) ICAO-TI (Transport by Air)
Approval Criteria	Globally agreed set of rules to be followed when approving chemicals at SCHAAF
Organisation	SCHAAF GmbH & Co. KG
Chemical Approver	Person appointed to be responsible for approving chemicals in a specific part of the organisation
Basic User	Every person at SCHAAF



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Table 1; Products/Materials classified as Carcinogenic, Mutagenic, Toxic or Toxic to Reproduction

Classification under directive 67/548/ECC, ref. 8	67/548/ECC, ref. 8 ACGIH American Conference of Governmental Industrial Hygienists	IARC International Agency for Research on Cancer	Hazard statement GHS-CLP, ref. 9	Hazard Class and Category	1=Prohibited 2=Restricted
Mutagenic:					
Muta. Cat. 1; R46			H340	Muta. 1A	2
Muta. Cat. 2; R46			H340	Muta. 1B	2
Muta. Cat. 3; R68			H341	Muta. 2	2
Carcinogenic:					
Carc. Cat. 1; R45 Carc. Cat. 1; R49 Carc. Cat. 2; R45 Carc. Cat. 2; R49	A1 and A2	Group 1, 2A and 2B	H350 H350i	Carc. 1A Carc. 1B	2
Carc. Cat. 3; R40			H351	Carc. 2	2
Toxic to reproduction:					
Repr. Cat. 1; R60 Repr. Cat. 2; R60 Repr. Cat. 1; R61 Repr. Cat. 2; R61			H360 F H360 D H360 FD H360 Fd H360 Df	Repr. 1A Repr. 1B	2
Repr. Cat. 3; R62 Repr. Cat. 3; R63			H361 f H361 fc H361 fd	Repr. 2	2
R64			H362	May cause harm to breastfed children	2
Toxic:					
T+; R27 T+; R26			H310 H330 (vapour)	Acute Tox. 1	2
T+; R28 T+; R26 T; R23			H300 H330 (gas/dust/mist) H330 (vapour)	Acute Tox. 2	2
T; R25 T; R24 T; R23			H301 H311 H331	Acute Tox. 3	2
T; R39/23 T; R39/24 T; R39/25 T+; R39/26 T+; R39/27 T+; R39/28			H370	STOT SE 1/SE 2	2
T; R48/23 T; R48/24 T; R48/25			H372	STOT RE 1/ RE 2	2
Sensitising:					
R42			H334	Resp. Sens. 1	2



Table 2; Products/materials classified as physical hazards

Classification under directive 67/548/ECC, ref. 8	Hazard statement GHS-CLP, ref. 9	Hazard Class and Category	1=Prohibited 2=Restricted
Physical hazards			
R1, R6, R9, R19, R2, R3, R4, R5, R16, R18		Explosives	2

Table 3; Products/materials classified as environmental hazards

Classification under directive 67/548/ECC, ref. 8	Hazard statement GHS-CLP, ref. 9	Hazard Class and Category	1=Prohibited 2=Restricted
Environmental hazards			
R50	H400	Aquatic Acute 1	2
R50/53	H410	Aquatic Chronic 1	2
R59	EUH059	Ozone layer	2

Table 4; Chemical compounds/ingredients whose use is prohibited or restricted

Group	Substance	CAS No.	1=Prohibited 2=Restricted	Can be found in	Reference
REACH Candidate list	http://echa.europa.eu/chem_data/authorisation_process/candidate_list_table_en.asp		1		[Ref 3]
Polychlorinated biphenyl	PCB if concentration is greater than 0.005 w/w%	1336-36-3	1	Condensates, transformer, substances in paint, sealing and plastic	[Ref 3/4/5]
Polychlorinated triphenyl	PCT if concentration is greater than 0.005 w/w%	61788-33-8 12642-23-8			
Chlorinated compounds	Chloroform	67-66-3	1	Solvent	[Ref 3]
	Tetrachloromethane	56-23-5	1	Solvent	[Ref 3/6]
	1,1,1-trichloroethane	71-55-6	1	Solvent	[Ref 3/6]
	1,1,2-trichloroethane	79-00-5	1	Solvent	[Ref 3]
	1,1,1,2-tetrachloroethane	630-20-6	1	Solvent	[Ref 3]
	1,1,2,2-tetrachloroethane	79-34-5	1	Solvent	[Ref 3]
	Pentachloroethane	76-01-7	1	Solvent	[Ref 3]
	1,1-dichloroethylene	75-35-4	1	Solvent	[Ref 3]



Chlorinated compounds	Hexachlorethan	67-72-1	1	Solvent for removing impurities from molten metals, recovering metals from ores or smelting products and improving the quality of various metals and alloys	[Ref 3]
	Alkanes, C10-C13, chloro (short-chain chlorinated paraffins) (SCCPs) for processing of metals	85535-84-8	1	Processing of metals i.e. lubricants and additives	[Ref 3]
	Monomethyltetrachlorodiphenylmethan	76253-60-6	1	Dielectric fluid in capacitors, transformers and hydraulic fuel	[Ref 3]
	Monomethyldichlorodiphenyl methane	No CAS No. (EC. No: 400-140-6)	1	Dielectric fluid in capacitors, transformers and hydraulic fuel	[Ref 3]
	Monomethyl-dibromodiphenyl Methane (DBBT)	99688-47-8	1	Dielectric fluid in capacitors, transformers and hydraulic fuel	[Ref 3]
	Mirex	2385-85-5	1	Flame retardant material	[Ref 3/4/5]
Organic compounds	Benzene in products with concentrations above 0.1 % w/w. The ban does not apply to gasoline	71-43-2	1	Ingredient in fuel, paint, solvents, lubricants	[Ref 3]
	Nonylphenol – The ban does not apply to epoxy materials used for maintenance or reproduction of old turbines. Nonylphenol ethoxylate	25154-52-3 9016-45-9	1	Processing of metals	[Ref 3]
	2,4,6-tri-tertbutylphenol	732-26-3	1	Additive to fuel and	[Ref 5]
Ozone depleting substances i.e. CFCs, Halons, HBFC, HCFC, etc. HCFCs	Trichlorofluormethane (CFC-11)	75-69-4	1	Coolant, Freon	[Ref 6]
	Dichlorodifluormethane (CFC-12)	75-71-8	1	Coolant, Freon	[Ref 6]
	Trichlorotrifluor-ethane (CFC-113)	76-13-1	1	Coolant, Freon	[Ref 6]
	Dichlorotetrafluoroethane (CFC-114)	76-14-2	1	Coolant, Freon	[Ref 6]
	Chloropentafluoroethane (CFC-115)	76-15-3	1	Coolant, Freon	[Ref 6]
	Bromochlorodifluoromethane (halon-1211)	353-59-3	1	Flame retardant material	[Ref 6]
	Trifluorobromomethane (halon-1301)	75-63-8	1	Flame retardant material	[Ref 6]



Ozone depleting substances i.e. CFCs, Halons, HBFC, HCFC, etc. HCFCs	Dibromotetrafluoroethane (halon-2402)	124-73-2	1	Flame retardant material	[Ref 6]
	Hydrobromofluorocarbon (HBFC)	Several options	1		[Ref 6]
	Bromochloro-methane	74-97-5	1		[Ref 6]
	Methyl bromide	74-83-9	1	Flame retardant material	[Ref 6]
	Chlorodifluoro-methane (HCFC-22)	75-45-6	1	Coolant	[Ref 6]
	Dichlorotrifluoroethane (HCFC-123)	306-83-2	1	Coolant	[Ref 6]
	Dichlorofluoroethane (HCFC-141)	1717-00-6	1	Coolant	[Ref 6]
	Chlorodifluoroethane (HCFC-142b)	75-68-3		Coolant	[Ref 6]
Greenhouse gas	SF6 (Sulphur hexafluoride)	2551-62-4	2	Insulator in switch gear	[Ref 6/7]
Diphenyl ether, polybromo derivative	Diphenyl ether, Pentabromo derivative and octabromo derivative	32534-81-9 32536-52-0	1	Fire retardant in plastics, rubber and electrical goods.	[Ref 3/5]
Polybrominated biphenyls	Polybrominated biphenyls (PBB)	59536-65-1	1	Flame retardant chemical used in plastics	[Ref 3/5]
	Polybrominated biphenyls (PBB) above 0.1% in electrical equipment		2	Circuit board	[Ref 2]
	Polybrominated diphenyl ethers (PBDE)	Not available	1	Flame retardant chemical used in plastics	[Ref 3/5]
	Polybrominated diphenyl ethers (PBDE) above 0.1% in electrical equipment		2	Circuit board	[Ref 2]
Asbestos fibres	Asbestos	12001-28-4 12001-29-5 12172-73-5 132207-32-0 1332-21-4 77536-66-4 77536-67-5 77536-68-6	1	Brakes, insulating material, cement	[Ref 3/5]
Organostannic compounds	Organostannic compounds – the ban is for use as a biocide in paint and in the treatment of industrial water as described in Ref. 3	Several options	1	Compounds for preventing fouling by microorganisms, plants or animals of submerged appliances and equipment	[Ref 3]



Organostannic compounds	Tri-substituted organostannic compounds (TBT and TPT), Dibutyltin (DBT) and Dioctyltin (DOT). Prohibited in concentrations greater than 0.1w/w %. Calculated as Sn. The ban applies as described in the legal requirement	Several CAS No.	1	One- or twocomponent vulcanisation sealants and adhesives, soft PVC profiles. Accelerators in polyurethane system (paints, adhesives, fillers)	[Ref 10]
Styrene and polyester (monomeric)	The ban does not apply to materials used for maintenance and repair of old turbines	Several options	2	Monomeric Styrene is used for manufacturing some glass fiber reinforced parts and in the production of styrene containing polymers (e.g. certain rubber parts, vacuum formed ABS). However, in the manufactured product, monomeric styrene is converted to polymeric styrene and the finished products are not subject to the restriction	
Heavy metals	Lead. The ban does not apply to electrical equipment	Several options	1	Brake lining, plastic tubes, lubricant, paint	[Ref 1]
	Lead in electric equipment above 0.1%	Several options	2	Batteries	[Ref 2]
	Mercury compounds	Several options	1	Compounds for preventing fouling by microorganisms, plants or animals of submerged appliances and equipment	[Ref 3]



Heavy metals	Mercury compounds above 0.1% in electrical equipment	Several options	1		[Ref 2]
	Arsenic compounds	Several options	1	Compounds for preventing fouling by microorganisms, plants or animals of submerged appliances and equipment	[Ref 3]
	Cadmium compounds. The ban does not apply to batteries	Several options	1	Electrical equipment, batteries, colours of finished plastic products and paints	[Ref 3]
	Cadmium above 0.01% in batteries	Several options	2		[Ref 2]
	Chrome VI: in cement and cementcontaining preparations in concentrations above 0.0002% of the total dry weight of the cement. The ban does not apply to surface treatment and to electrical equipment	Several options	1	Cement and cementcontaining preparations Hot galvanisation	[Ref 3]
	Chrome VI Used in surface treatment	Several options	2		
	Chrome VI used above 0.1% in electrical equipment	Several options	2		[Ref 2]

References:

1. Miljø- and Energiministeriets bek. nr. 1082 af 13. september 2007 om forbud mod import and salg af produkter, der indeholder bly. (The Danish Ministry of Environment and Energy regulation no. 1082 dated 13. September 2007 on the prohibited import and sale of plumbiferous products)
2. EUROPA-PARLAMENTETS AND RÅDETS DIREKTIV 2008/0240 (COD) af 27. may 2011 om begrænsning af anvendelsen af visse farlige stoffer i elektrisk and elektronisk udstyr. The European Parliament and Council regulation 2008/0240 (COD) dated 27. May 2011 on the limitation of the use of certain harmful substances in electrical and electronic equipment) RoHS Directive
3. Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18. December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC
4. STOCKHOLM CONVENTION ON PERSISTENT ORGANIC POLLUTANTS (POPs) 22. May 2001 (4th meeting held in Geneva, 4-8. May 2009)
5. ROTTERDAM CONVENTION, PIC CIRCULAR XXV – June 2007
6. The Montreal Protocol on Substances that Deplete the Ozone Layer
7. Kyoto
8. European Parliament and Council regulation 67/548/EEC Classification, packaging and labelling of hazardous substances.
9. European Parliament and Council regulation 1272/2008, CLP Classification
10. Council Directive 76/769/EEC regarding restrictions on the marketing and use of organostannic compounds for the purpose of adapting its Annex I to technical progress