

List of Substances of Very High Concern (SVHC) under REACH

The substances of No.11,12,24,35,36,37,38 are containment-prohibited substances. Please separately guarantee them on the Non-containing guarantee (Form 4).

Revised on July 7, 2010

No.	Substance Name	CAS No.	Cause	Intended use
1	Anthracene	120-12-7	Persistent, Bioaccumulative, Toxic	Black rubber or plastics product
2	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	Carcinogenic	Curing agent of epoxy resin and polyurethane resin
3	Dibutyl phthalate (DBP)	84-74-2	Toxic to reproduction	Plasticizer for Vinyl chloride resin etc.
4	Cobalt dichloride	7646-79-9	Carcinogenic	Humidity indicator (Use it with silicagel etc.)
5	Diarsenic pentoxide	1303-28-2	Carcinogenic	Dye, metallurgy, and wood preservative
6	Diarsenic trioxide	1327-53-3	Carcinogenic	Raw material of metallic arsenic Lucidity agent (decolorant and defoaming agent) of special glass
7	Sodium dichromate	7789-12-0 10588-01-9	Carcinogenic, Mutagenic, Toxic to reproduction	Manufacturing of chromium compound (chromium sulfate) Manufacturing of inorganic chrome relational pigments
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	Very Persistent, Very Bioaccumulative	Flavor ingredient
9	Di(2-ethylhexyl) phthalate (DEHP)	117-81-7	Toxic to reproduction	Plasticizer for Vinyl chloride resin
10	Hexabromocyclododecane(HBCDD) <Including all major diastereoisomers>	25637-99-4 3194-55-6 134237-50-6 134247-51-7 134237-52-8	Persistent, Bioaccumulative, Toxic	Flame retardant
11	Short Chain Chlorinated Paraffins (C10-C13)	85535-84-8	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Rubber, paints, gasket, adhesive lubricant, flame retardant, and plasticizer
12	Tributyl Tins Oxide (TBTO)	56-35-9	Persistent, Bioaccumulative, Toxic	Fungicide and antifoulant paint
13	Lead hydrogen arsenate	7784-40-9	Carcinogenic, Toxic to reproduction	Insecticide and wood preservative
14	Butylbenzyl phthalate (BBP)	85-68-7	Toxic to reproduction	Plasticizer for Vinyl chloride resin
15	Triethyl arsenate	15606-95-8	Carcinogenic	Insecticide and wood preservative
16	2,4-Dinitrotoluene	121-14-2	Carcinogenic	Organic synthetic raw material (toluenediamine, intermediate of explosives, dye)
17	Aluminosilicate Refractory Ceramic Fibres	(JAMP-SN0007)	Carcinogenic	High-temperature insulation of industrial furnaces and equipment for the automotive and aircraft/aerospace industry) and in fire protection of buildings and industrial process equipment
18	Anthracene oil	90640-80-5	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative (Carcinogenic)	Manufacture of substances such as anthracene and carbon black, reducing agents in blast furnaces, components in bunker fuel, for impregnating, sealing and corrosion protection
19	Anthracene oil, anthracene-low	90640-82-7	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative, (Carcinogenic, Mutagenic)	
20	Anthracene oil, anthracene paste	90640-81-6		
21	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2		
22	Anthracene oil, anthracene paste, distn. Lights	91995-17-4		
23	Diisobutyl phthalate	84-69-5		Toxic to reproduction
24	Lead chromate	7758-97-6	Carcinogenic, Toxic to reproduction	Pigment, coating agent, varnishes, or embalming agent in industrial and maritime paint products
25	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	Carcinogenic, Toxic to reproduction	Colouring agent such as the rubber, plastic, paints, and coatings, etc.
26	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Carcinogenic, Toxic to reproduction	Colouring agent such as the rubber, plastic, paints, and coatings, etc.
27	Pitch, coal tar, high temp.	65996-93-2	Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative, Carcinogenic	Materials for molding electrode/ carbon products, insulating shell filler, coal briquette binding agent
28	Tris (2-chloroethyl) Phosphate	115-96-8	Toxic to reproduction	Plasticiser and viscosity regulator with flame-retarding properties for acrylic resins, polyurethane, polyvinyl, etc. adhesives, flame resistant paints
29	Zirconia Aluminosilicate, Refractory Ceramic Fibres	(JAMP-SN0055)	Carcinogenic	High-temperature insulation of industrial furnaces and equipment for the automotive and aircraft/aerospace industry) and in fire protection of buildings and industrial process equipment

30	Acrylamide	79-06-1	Carcinogenic Mutagenic	Acrylamide is almost exclusively used for the synthesis of polyacrylamides, which are used in various applications, in particular in waste water treatment and paper processing. Minor uses of acrylamide comprise the preparation of polyacrylamide gels for research purposes and as grouting agents in civil engineering.
31	Trichloroethylene	79-01-6	Carcinogenic	Trichloroethylene is mainly used as intermediate in the manufacture of chlorinated and fluorinated organic compounds. Other uses are for cleaning and degreasing of metal parts or as solvent in adhesives.
32	Boric acid	10043-35-3 11113-50-1	Toxic to reproduction	Boric acid is widely used on account of its consistency-influencing, flame-retarding, antiseptic and preservative properties. It is a component of detergents and cleaners, adhesives, toys, industrial fluids, brake fluids, glass, ceramics, flame retardants, paints, disinfectants, cosmetics, food additives, fertilisers, insecticides and other products.
33	Disodium tetraborate, anhydrous	1330-43-4 12179-04-3 1303-96-4	Toxic to reproduction	Disodium tetraborate and tetraboron disodium heptaoxide form the same compounds in aqueous solutions.
34	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Toxic to reproduction	Uses include a multitude of applications, e.g. in detergents and cleaners, in glass and glass fibres, ceramics, industrial fluids, metallurgy, adhesives, flame retardants, personal care products, biocides, fertilisers.
35	Sodium chromate	7775-11-3	Carcinogenic Mutagenic Toxic to reproduction	Sodium chromate is mainly used as an intermediate in the manufacture of other chromium compounds as well as a laboratory analytical agent, but this use is limited. Other potential uses are mentioned in the literature but whether they occur in the EU is not clear.
36	Potassium chromate	7789-00-6	Carcinogenic Mutagenic	Potassium chromate is used as a corrosion inhibitor for treatment and coating of metals, for manufacture of reagents, chemicals and textiles, as a colouring agent in ceramics, in the manufacture of pigments/inks and in the laboratory as analytical agent.
37	Ammonium dichromate	7789-09-5	Carcinogenic Mutagenic Toxic to reproduction	Ammonium dichromate is mainly used as an oxidising agent. Other known uses are in the manufacture of photosensitive screens and as mordant in the manufacture of textiles. Minor uses seem to comprise metal treatment and laboratory analytical agent.
38	Potassium dichromate	7778-50-9	Carcinogenic Mutagenic Toxic to reproduction	Potassium dichromate is used for chrome metal manufacturing and as corrosion inhibitor for treatment and coating of metals. It is further used as textile mordant, as laboratory analytical agent, for cleaning of laboratory glassware, in the manufacture of other reagents and as oxidising agent in photolithography.

(Note) Since No.17 and 29 do not have CAS No., JAMP (Joint Article Management Promotion-consortium) has assigned appropriate numbers due to the necessity of information distribution.