

Confirmation Sheet of Controlled Substances (SVHC)

(Form C)
Revised on January 25, 2019

- (1) Please fill in and provide a response in the bold frame. In case of any changes in submitted contents, or in materials and processes for deliverables (product group to be evaluated), please submit the form again.
- (2) The number of columns are not sufficient, make a copy of the column.

Requesting party's Entries		<<Supplier's Entries>>	
Date of sending		Date of entry	
Contact department person		Company name	
Contact department person in charge		Address	
Contact telephone No.		Department name	
Contact Email address		Person in charge	Seal
Requesting department (person in charge)		Telephone No.	
Requesting department Email address		FAX No.	
		Email address of person in charge	

1. We have confirmed that the concentration of controlled substances (SVHC) are as Section 2.

Please submit chemSHERPA-AI (Composition) or JAMP AIS data (XML) regardless of the concentration of the substances.

The denominator on calculation of the concentration is the gross weight.

No.	Name of deliverable (product group to be evaluated)	Deliverable No./Packaging material No.	Concentration of Substances of Very High Concern (SVHC)
1			Choose
2			Choose
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5			Choose
6			Choose
7			Choose
8			Choose
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2. Controlled Substances (SVHC)

No.	Substance Name	CAS No.	Cause	Intended use	Article
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(CoCl ₂)	7646-79-9	Carcinogenic, Toxic to reproduction	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 Equivalent level of concern having probable serious effects to the environment	Plasticizer for Vinyl chloride resin	
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	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, dyes)	
17	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	
18	Anthracene oil, anthracene-low	90640-82-7	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative, (Carcinogenic, Mutagenic)		
19	Anthracene oil, anthracene paste	90640-81-6			
20	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2			
21	Anthracene oil, anthracene paste, distn. Lights	91995-17-4			
22	Diisobutyl phthalate	84-69-5	Toxic to reproduction	Manufacture of substances as plasticiser, gelling aid in combination with other plasticisers, which are widely used for plastics, lacquers, paints.	
23	Lead chromate	7758-97-6	Carcinogenic, Toxic to reproduction	Pigment, coating agent, varnishes, or embalming agent in industrial and maritime paint products	
24	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.	
25	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.	

26	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
27	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
28	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.
29	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.
30	Boric acid	10043-35-3 11113-50-1	Toxic to reproduction	Boric acid is widely used on account of its consistency-in wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative, as flame retardant in wood, cotton and other plant derived material and other products.
31	Disodium tetraborate, anhydrous Disodium tetraborate, pentahydrate Disodium tetraborate decahydrate	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. Uses include a multitude of applications, e.g. in wood veneers/ pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Toxic to reproduction	
33	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.
34	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.
35	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.
36	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.
37	Cobalt() sulphate	10124-43-3	Carcinogenic Toxic to reproduction	Mainly used in the production of other chemicals. Further applications may include manufacture of catalysts and driers, surface treatments (such as electroplating), corrosion prevention, production of pigments, decolouring (in glass, pottery), batteries, animal food supplement, soil fertilizer, and others.
38	Cobalt() dinitrate	10141-05-6	Carcinogenic Toxic to reproduction	Mainly used in the production of other chemicals and the manufacture of catalysts. Further applications may include surface treatments and batteries.
39	Cobalt() carbonate	513-79-1	Carcinogenic Toxic to reproduction	Mainly used in the manufacture of catalysts. Minor uses may include feed additive, production of other chemicals, production of pigments, and adhesion (in ground coat frit).
40	Cobalt() diacetate	71-48-7	Carcinogenic Toxic to reproduction	Mainly used in the manufacture of catalysts. Minor uses may include production of other chemicals, surface treatment, alloys, production of pigments, dyes, rubber adhesion, and feed additive.
41	2-Methoxyethanol	109-86-4	Toxic to reproduction	Mainly used as solvent, chemical intermediate and additive for fuels.
42	2-Ethoxyethanol	110-80-5	Toxic to reproduction	Mainly used as solvent and chemical intermediate.
43	Chromium trioxide	1333-82-0	Carcinogenic Mutagenic	Used for metal finishing and as fixing agent in waterborne wood preservatives.
44	Acids generated from chromium trioxide and their oligomers: · Chromic acid · Dichromic acid · Oligomers of chromic acid and dichromic acid	7738-94-5 13530-68-2 (JAMP-SN0071)	Carcinogenic	These acids and their oligomers are generated when chromium trioxide is dissolved in water. Chromium trioxide is mainly used in form of aqueous solutions. Consequently, the uses of these substances are the same as indicated for chromium trioxide.
45	2-Ethoxyethyl acetate	111-15-9	Toxic to reproduction	Coatings for metal products and furniture, solvent printing ink, solvent ink for electronic components
46	Strontium chromate	7789-06-2	Carcinogenic	Coatings such as paints, varnishes, oil-colors, sealants, etc aeronautic/aerospace, coil coating or vehicle coating, corrosion inhibitor
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNU)	68515-42-4	Toxic to reproduction	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant
48	Hydrazine	7803-57-8 302-01-2	Carcinogenic	For the manufacture of plastic foam, boiler compound, reducing agent, polymerization catalyst, purifying agent
49	1-Methyl-2-pyrrolidone	872-50-4	Toxic to reproduction	Resin solvent, acetylene solvent, MOS semiconductor manufacturing solvents, Electronics Cleaning, de-fluxing, edge bead removal, photoresist stripping
50	1,2,3-Trichloropropane	96-18-4	Carcinogenic Toxic to reproduction	Pesticides and solvents, Crosslinking agents for polysulfide elastomers and hexafluoropropylene
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Toxic to reproduction	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant

52	Zirconia Aluminosilicate Refractory Ceramic Fibres a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	(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
53	Calcium arsenate	7778-44-1	Carcinogenic	Calcium arsenate is present in complex raw materials (which themselves are by-products from metallurgical processes) that are used mainly for copper and lead refining. The substance is used to precipitate nickel from the molten metal and to manufacture diarsenic trioxide. However, most of the substance seems to be disposed of as waste
54	Bis(2-methoxyethyl) ether	111-96-6	Toxic to reproduction	Bis(2-methoxyethyl) ether is used primarily as a reaction solvent or process chemical in a wide variety of applications. It is also used as solvent for battery electrolytes, and possibly in other products such as sealants, adhesives, fuels and automotive care products.
55	Aluminosilicate Refractory Ceramic Fibres a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	(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
56	Potassium hydroxyoctaoxidizedichromate	11103-86-9	Carcinogenic	Potassium hydroxyoctaoxidizedichromate is mainly used in coatings in the aeronautic/ aerospace, steel and aluminium coil coating and vehicle coating sectors.
57	Lead dipicrate	6477-64-1	Toxic to reproduction	No registration for lead dipicrate has been submitted to ECHA. The substance is an explosive like lead diazide and lead styphnate. It may be used in low amounts in detonator mixtures together with the two other mentioned lead compounds.
58	N,N-dimethylacetamide [DMAC]	127-19-5	Toxic to reproduction	N,N-dimethylacetamide is used as solvent, mainly in the manufacture of various substances and in the production of fibres for clothing and other applications. Also used as reagent, and in products such as industrial coatings, insulation paper, polyimide films, paint strippers and ink removers.
59	Arsenic acid	7778-39-4	Carcinogenic	Arsenic acid is mainly used to remove gas bubbles from ceramic glass melt (fining agent) and in the production of laminated printed circuit boards. To lesser extent the substance is also used in the manufacture of semiconductors and as laboratory agent.
60	2-Methoxyaniline; o-Anisidine	90-04-0	Carcinogenic	2-Methoxyaniline is mainly used in the manufacture of dyes for tattooing and coloration of paper, polymers and aluminium foil.
61	Trilead diarsenate	3687-31-8	Carcinogenic Toxic to reproduction	Trilead diarsenate is present in complex raw materials for manufacture of copper, lead and a range of precious metals. The trilead diarsenate contained in the raw materials is in the metallurgical refinement process transformed to calcium arsenate and diarsenic trioxide. Whereas most of the calcium arsenate appears to be disposed of as waste the diarsenic trioxide is used further.
62	1,2-Dichloroethane	107-06-2	Carcinogenic	1,2-Dichloroethane is mainly used for manufacture of other substances. Minor uses as solvent in the chemical and pharmaceutical industry, as well as in laboratories
63	Pentazine chromate octahydroxide	49663-84-5	Carcinogenic	Pentazine chromate octahydroxide is mainly used in coatings in the vehicle coating and aeronautic / aerospace sectors.
64	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	equivalent level of concern having probable serious effects to the environment	4-(1,1,3,3-Tetramethylbutyl)phenol is mainly used in the manufacture of polymer preparations and of ethoxylate surfactants. It is further used as a component in adhesives, coatings, inks and rubber articles.
65	Formaldehyde, oligomeric reaction products with aniline [technical MDA]	25214-70-4	Carcinogenic	Technical MDA is mainly used for manufacture of other substances. Minor uses are as ion exchange resins in nuclear power plants, as hardener for epoxy resins, e.g. for the production of rolls, pipes and moulds, and as well for adhesives.
66	Bis(2-methoxyethyl) phthalate	117-82-8	Toxic to reproduction	No registration for bis(2-methoxyethyl) phthalate has been submitted to ECHA. Hence, the substance seems not to be manufactured in or imported to the EU in quantities above 1 t/y. Main uses in the past were as plasticiser in polymeric materials and paints, lacquers and varnishes, including printing inks.
67	Lead azide Lead diazide	13424-46-9	Toxic to reproduction	Lead diazide is mainly used as initiator or booster in detonators for both civilian and military uses and as initiator in pyrotechnic devices.
68	Lead styphnate	15245-44-0	Toxic to reproduction	Lead styphnate is mainly used as a primer for small calibre and rifle ammunition. Other common uses are in ammunition pyrotechnics, powder actuated devices and detonators for civilian use.
69	2,2'-dichloro-4,4'-methylenedianiline [MOCA]	101-14-4	Carcinogenic	2,2'-Dichloro-4,4'-methylenedianiline is mainly used as curing agent in resins and in the production of polymer articles and also for manufacture of other substances. The substance may further be used in construction and arts.
70	Phenolphthalein	77-09-8	Carcinogenic	Phenolphthalein is mainly used as laboratory agent (pH indicator solutions). Minor uses are in pharmaceutical preparations and in some special applications (e.g. pH-indicator paper, disappearing inks).
71	Dichromium tris(chromate)	24613-89-6	Carcinogenic	Dichromium tris(chromate) is mainly used in mixtures for metal surface treatment in the aeronautic/aerospace, steel and aluminium coating sectors.
72	1,2-bis(2-methoxyethoxy)ethane [TEGDME, triglyme]	112-49-2	Toxic for reproduction	Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals. Minor use in brake fluids and repair of motor vehicles.
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether [EGDME]	110-71-4	Toxic for reproduction	Mainly used as a solvent or as a processing aid in the manufacture and formulation of industrial chemicals, including use as an electrolyte solvent in lithium batteries.

74	Diboron trioxide	1303-86-2	Toxic for reproduction	Used in a multitude of applications, e.g. in glass and glass fibres, frits, ceramics, flame retardants, catalysts, industrial fluids, metallurgy, nuclear, electrical equipment, adhesives, inks/paints, film developing solutions, detergents and cleaners, reagent chemicals, biocides and insecticides.
75	Formamide	75-12-7	Toxic for reproduction	Mainly used as an intermediate in the manufacture of agrochemicals, pharmaceuticals and industrial chemicals. Minor uses as a solvent, as a laboratory reagent for quality control purposes in forensic laboratories, hospitals, pharmaceutical companies, food and drinks manufacturers and research laboratories. The substance seems to also be used as a plasticiser.
76	Lead(II) bis(methanesulfonate)	17570-76-2	Toxic for reproduction	Mainly used in plating processes (both electrolytic and electroless) for electronic components (such as printed circuit boards). The substance seems to also be used for batteries in special applications.
77	TGIC (1,3,5-tris(oxiranymethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	2451-62-9	Mutagenic	Mainly used as a hardener in resins and coatings. Also used in inks for the printed circuit board industry, electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing coatings, tools, adhesives, lining materials and stabilisers for plastics.
78	β-TGIC (1,3,5-tris(2S and 2R)-2,3-epoxypropyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	Mutagenic	Mainly used as a solder mask ink in the EU. Also used in electrical insulation material, resin moulding systems, laminated sheeting, silk screen printing, coatings, tools, adhesives, lining materials and stabilisers for plastics.
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Carcinogenic	Used as an intermediate in the manufacture of triphenylmethane dyes and other substances. Further potential uses include use as an additive (photosensitiser) in dyes and pigments, in dry film products and as a process chemical in the production of electronic circuit boards.
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	Carcinogenic	Used as an intermediate in the manufacture of dyes and other substances.
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	Carcinogenic	Used mainly for paper colouring and inks supplied in printer cartridges and ball pens. Further uses include staining of dried plants, use as a marker for increasing the visibility of liquids, staining in microbial and clinical laboratories.
82	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	Carcinogenic	Used in the formulation of inks, cleaners, and coatings, as well as for dyeing paper, packaging, textiles, plastic products, and other types of articles. It is also used in diagnostic and analytical applications.
83	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	Carcinogenic	Mainly used in the formulation of printing and writing inks, for dyeing paper and in mixtures such as windscreen washing agents.
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	Carcinogenic	Used in the formulation of writing inks and potentially other inks, as well as for dyeing a variety of materials.
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Plastic, fabric and product flame retardant
86	Pentacosafuorotridecanoic acid	72629-94-8	Persistent, Bioaccumulative, Toxic	Manufacture and additive of fluoroplastic
87	Tricosafuorododecanoic acid	307-55-1	Persistent, Bioaccumulative, Toxic	Manufacture and additive of fluoroplastic
88	Henicosafuoroundecanoic acid	2058-94-8	Very Persistent, Very Bioaccumulative,	Manufacture and additive of fluoroplastic
89	Heptacosafuorotetradecanoic acid	376-06-7	Very Persistent, Very Bioaccumulative	Manufacture and additive of fluoroplastic
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	(JAMP-SN0081)	Equivalent level of concern - probable serious effects to the environment	Emulsifier for emulsion polymerization, textile and leather auxiliary agent, pesticide formulation, veterinary medicine products, water-based paint, intermediate for manufacturing of octylphenol ether sulfate
91	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	(JAMP-SN0082)	Equivalent level of concern - probable serious effects to the environment	Spinning auxiliary agent, cleaning, car care products, paint, print ink, water-based paint, wetting agent for pesticide, metal lubricant, plastic antioxidant and plasticizer
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	Equivalent level of concern - probable serious effects to human health	Rubber and synthetic-resin foaming agent, bleaching agent, catalyst, cement filler, colorant, photo-bleaching agent
93	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] [The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry]	85-42-7 13149-00-3, 14166-21-3	Equivalent level of concern - probable serious effects to human health	Manufacture of polyester and alkyd resin, thermoplastic resin plasticizer, epoxy-resin curing agent, thermoplastic resin cross-linker, insecticide, corrosion inhibitor
94	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] [The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	Equivalent level of concern - probable serious effects to human health	Manufacture of polyester and alkyd resin, thermoplastic resin plasticizer, epoxy-resin curing agent, thermoplastic resin cross-linker, insecticide, corrosion inhibitor
95	Methoxyacetic acid	625-45-6	Toxic for reproduction ; equivalent level of concern -probable serious effects to human health and the environment	Agrochemical and disease control medicine intermediate, disinfectant, cleaner for ultrafiltration membrane and reverse osmosis, floor, wall and local industrial cleaner, wheel and tire cleaner, pH adjuster, corrosion inhibiting products, motor fuel
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Toxic for reproduction	More than 1t per year has not been marketed. A small amount is used for analysis.
97	Diisopentylphthalate	605-50-5	Toxic for reproduction	Manufacture of pesticide, resin plasticizer of vinyl chloride, etc.
98	N-pentyl-isopentylphthalate	776297-69-9	Toxic for reproduction	Plastic plasticizer
99	1,2-Diethoxyethane	629-14-1	Toxic for reproduction	Organic synthetic solvent including ester gum, shellac, resin, and oil, etc.
100	N,N-dimethylformamide	68-12-2	Toxic for reproduction	Cleaning solvent for leather, artificial leather, and fabric, cleaning solvent for electrical device and integrated circuit, organic-synthetic reaction agents and catalyst, petrochemical selective absorbents
101	Dibutyltin dichloride (DBTC)	683-18-1	Toxic for reproduction	Rubber additive, vinyl chloride stabilizer, polyurethane and silicon resin catalyst, insulating material and coated materials, intermediate for dibutyltin manufacturing
102	Acetic acid, lead salt, basic	51404-69-4	Toxic for reproduction	-
103	Trilead bis(carbonate)dihydroxide	1319-46-6	Toxic for reproduction	Ceramics, enamel glaze, paint, vinyl chloride stabilizer, pigment, rubber
104	Lead oxide sulfate	12036-76-9	Toxic for reproduction	-
105	[Phthalato(2-)]dioxotrilead	69011-06-9	Toxic for reproduction	-

106	Dioxobis(stearato)trilead	12578-12-0	Toxic for reproduction	-	
107	Fatty acids, C16-18, lead salts	91031-62-8	Toxic for reproduction	-	
108	Lead bis(tetrafluoroborate)	13814-96-5	Toxic for reproduction	Solder plating, alloy plating, electrolytic plating electrolyte	
109	Lead cyanamidate	20837-86-9	Toxic for reproduction	Corrosion inhibitor, pigment	
110	Lead dinitrate	10099-74-8	Toxic for reproduction	-	
111	Lead monoxide (lead oxide)	1317-36-8	Toxic for reproduction	Vinyl chloride stabilizer, radiation protective agents including fluorescent light, vacuum tube, and cathode-ray tube, etc., optical glass, pigment, paint, storage battery plate, vulcanization accelerator, ceramic, enamel, general glass, electronic material	
112	Orange lead (lead tetroxide)	1314-41-6	Toxic for reproduction	Paint, radiation protective agents including fluorescent light, vacuum tube, and cathode-ray tube, etc., optical glass, general glass, ceramic, enamel, storage battery, pigment, rubber, medicine, synthetic resin, electronic material	
113	Lead titanium trioxide	12060-00-3	Toxic for reproduction	-	
114	Lead titanium zirconium oxide	12626-81-2	Toxic for reproduction	-	
115	Pentalead tetraoxide sulphate	12065-90-6	Toxic for reproduction	-	
116	Pyrochlore, antimony lead yellow	8012-00-8	Toxic for reproduction	-	
117	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	Toxic for reproduction	-	
118	Silicic acid, lead salt	11120-22-2	Toxic for reproduction	-	
119	Sulfurous acid, lead salt, dibasic	62229-08-7	Toxic for reproduction	-	
120	Tetraethyllead	78-00-2	Toxic for reproduction	Octane booster	
121	Tetralead trioxide sulphate	12202-17-4	Toxic for reproduction	-	
122	Trilead dioxide phosphonate	12141-20-7	Toxic for reproduction	-	
123	Furan	110-00-9	Carcinogenic	-	
124	Methyloxirane (Propylene oxide)	75-56-9	Carcinogenic ; Mutagenic	Propylene glycol, polypropylene glycol, propylene-halohydrin, isopropanolamine, oxyesters, allyl alcohol, propylene aldehyde, acetone, propylene carbonate, pigment, intermediate for medicine, bactericide	
125	Diethyl sulphate	64-67-5	Carcinogenic ; Mutagenic	Dye, medicine, agricultural chemical, fine chemical, quaternary ammonium compound synthetic agent	
126	Dimethyl sulphate	77-78-1	Carcinogenic	Organic synthetic methylating agent, Synthesis of intermediate anisole and Fragrance nero phosphorus, drug synthesis, Manufacture of methylhydroquinone and polymethine cyanine dye and methylcellulose, extraction solvent of aromatic hydrocarbon, stabilizer (anhydrous, dicyano ethylene monomer)	
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Toxic for reproduction	-	
128	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	Toxic for reproduction	-	
129	4,4'-methylenedi-o-toluidine	838-88-0	Carcinogenic	Epoxy resin, urethane-resin curing agent	
130	4,4'-oxydianiline and its salts	101-80-4	Carcinogenic Mutagenic	Materials for polyimide, polyamide-imide, polyamide, polymer compound materials and cross-linker including other epoxies, and urethane, etc.	
131	4-Aminoazobenzene	60-09-3	Carcinogenic	-	
132	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	Carcinogenic	Polyurethane-resin material, dye intermediate	
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	Carcinogenic	Various azo dye intermediate, intermediates such as Eosamine B, Coccinine B, Diamine Fast Violet BBN	
134	Biphenyl-4-ylamine	92-67-1	Carcinogenic	-	
135	o-aminoazotoluene	97-56-3	Carcinogenic	-	
136	o-Toluidine	95-53-4	Carcinogenic	Ortho-toluidine = azo dye and sulfide dye, organic synthesis, solvent, phosphorus oxide, p- toluidine=organic synthetic dye, special solvent for dye production	
137	N-methylacetamide	79-16-3	Toxic for reproduction	-	
138	1-bromopropane (n-propyl bromide)	106-94-5	Toxic for reproduction	Medicine and agricultural chemical intermediate	
139	Cadmium	7440-43-9	Carcinogenic; Equivalent level of concern having probable serious effects to human health	pigment, battery, plating	

140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	Toxic for reproduction; Persistent, Bioaccumulative, Toxic	intermediate δ , additive for resin, other products use (catalyst)	
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	Toxic for reproduction ; Persistent, Bioaccumulative, Toxic	additive, rebbering agent of the paint, aqueous film formation bubble digestive, surfactant	
142	Dipentyl phthalate (DPP)	131-18-0	Toxic for reproduction ;	plastic plasticizer	
143	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	(JAMP-SN0083)	Equivalent level of concern having probable serious effects to the environment	surfactant raw materials, dyes, ink, industrial detergent	
144	Cadmium oxide	1306-19-0	Carcinogenic ; Equivalent level of concern having probable serious effects to human health	stabilizer, antioxidant, electronics industry materials (semiconductor) pharmaceutical industry, as well as in laboratories, electroplating	
145	Cadmium sulphide	1306-23-6	Carcinogenic ; Equivalent level of concern having probable serious effects to human health	coloring agent	
146	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo]]1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7	Carcinogenic	dyes, clinical reagent	
147	Dihexyl phthalate	84-75-3	Toxic for reproduction	flooring, grip part of the tool, motor parts	
148	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	Toxic for reproduction	vulcanized accelerant (chloroprene rubber, chlorination polyethylene, etc)	
149	Trixylyl phosphate	25155-23-1	Toxic for reproduction	flame retardant, plastic plasticizer	
150	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	Carcinogenic	dyes, laboratory agent	
151	Lead di(acetate)	301-04-2	Toxic for reproduction	dyes, pigment, paint, adjuvant of the dye medicine/intermediate for medicine	
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	Toxic for reproduction	sealant/jointing agents, engine oil atabilizer, automotive gear lubricant, medical devices(DEHP), general purpose PVC(DEHP) adhesives and inka(DIBP)	
153	Cadmium chloride	10108-64-2	Carcinogenic Mutagenic Toxic for reproduction Equivalent level of concern having probable serious effects to human health	For production of organic cadmium compounds, For production of inorganic cadmium compounds, Raw material for electroalvanizing, Raw material for electroplating, Laboratory reagent (industrial & professional), Component for production of PV(photovoltaic) modules	
154	Sodium perborate; perboric acid, sodium salt	15120-21-5 11138-47-9	Toxic for reproduction	bleaching agent in laundry detergents and machine dishwashing products, in cleaning products and in cosmetic preparations	
155	Sodium peroxometaborate	7632-04-4	Toxic for reproduction	bleaching agent in laundry detergents and machine dishwashing products,	
156	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	ultraviolet rays absorbent, adhesive, paint, print ink	
157	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	Toxic for reproduction	additive for resin, adhesive for hard vinyl chloride pipe joining	
158	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	JAMP-SN0084	Toxic for reproduction	-	
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	ultraviolet rays absorbent	
160	Cadmium fluoride	7790-79-6	Carcinogenic Mutagenic Toxic for reproduction Equivalent level of concern having probable serious effects to human health	reagent, pharmaceutical industry as well as in laboratories, battery, plating, pigment, electrical contact materials	
161	Cadmium sulphate	10124-36-4 31119-53-6	Carcinogenic Mutagenic Toxic for reproduction Equivalent level of concern having probable serious effects to human health	reagent, catalysts, plating (printed circuit board), pigment, battery	
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with \geq 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5 68648-93-1	Toxic for reproduction	plastic and rubber plasticizer cable, adhesive, lubricant, coating agent	
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual isomers of [1] and [2] or any combination thereof]	JAMP-SN0085	Very Persistent, Very Bioaccumulative	synthetic perfume, perfume, soap, detergent, shampoo	
164	1,3-propanesultone	1120-71-4	Carcinogenic	Electrolyte fluid of lithium ion batteries	
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	Very Persistent, Very Bioaccumulative	UV-protection agents in coatings, plastics, rubber and cosmetics	
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	Very Persistent, Very Bioaccumulative	UV-protection agents in coatings, plastics, rubber and cosmetics	
167	Nitrobenzene	98-95-3	Toxic for reproduction	Manufacture of other substances	
168	Perfluorononan-1-oiic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	Toxic for reproduction Persistent, Bioaccumulative, Toxic	Processing aid for fluoropolymer manufacture/lubricating oil additive/surfactant for fire extinguishers/cleaning agent/textile antifouling finishing agent/polishing surfactant/waterproofing agents and in liquid crystal display panels	
169	Benzo[def]chrysenes	50-32-8	Carcinogenic, Mutagenic, Toxic for reproduction Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	Main products and by-products of distillation of coal tar, industries related to carbon and graphite (such as binding agents for products), aluminum industry (binding agents for electrodes), formation and end use of adhesives, paint, and water-repellent materials	
170	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7	Toxic for reproduction Equivalent level of concern having probable serious effects to environment	Manufacture of polycarbonate, epoxy resins and chemicals; hardener in epoxy resins	

171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 3830-45-3 3108-42-7	Toxic for reproduction Persistent, Bioaccumulative, Toxic,	Lubricant, wetting agent, plasticiser and corrosion inhibitor	
172	p-(1,1-dimethylpropyl)phenol	80-46-6	Equivalent level of concern having probable serious effects to environment	Manufacture of chemicals and plastic products	
173	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	JAMP-SN0089	Equivalent level of concern having probable serious effects to environment	Manufacture of polymers; formulation into lubricants	
174	Perfluorohexane-1-sulphonic acid and its salts	355-46-4	Very Persistent, Very Bioaccumulative	Carpets, leather and clothing, woven fabrics, paper/packaging, household cooking tools, sprays, fire extinguishing foam, metal plating, aircraft hydraulic oil, electronic equipment, medical and health care products, chemical adjustment oil, mining production, construction products, agricultural chemicals	
175	Dodecachloropentacyclo[12.2.1.16.9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus™") covering any of its individual anti- and syn-isomers or any combination thereof	13560-89-9 135821-74-8 135821-03-3	Very Persistent, Very Bioaccumulative	Used as a non-plasticising flame retardant, used in adhesives and sealants and in binding agents.	
176	Benz[a]anthracene	56-55-3 1718-53-2	Carcinogenic Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Normally not produced intentionally but rather occurs as a constituent or impurity in other substances.	
177	Cadmium carbonate	513-78-0	Carcinogenic Mutagenic Specific target organ toxicity after repeated exposure (Article 57(f) - human health)	Used as apH regulator and in water treatment products, laboratory chemicals, cosmetics and personal care products.	
178	Cadmium hydroxide	21041-95-2	Carcinogenic Mutagenic Specific target organ toxicity after repeated exposure (Article 57(f) - human health)	Used in laboratory chemicals and for the manufacture of electrical, electronic and optical equipment.	
179	Cadmium nitrate	10325-94-7 10022-68-1	Carcinogenic Mutagenic Equivalent level of concern - probable serious effects to human health	Used in laboratory chemicals and for the manufacture of glass, porcelain and ceramic products.	
180	Chrysene	218-01-9 1719-03-5	Carcinogenic Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Normally not produced intentionally but rather occurs as a constituent or impurity in other substances.	
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) with ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)	JAMP-SN0091	Endocrine disrupting properties (Article 57(f) - environment)	Used as a lubricant additive in lubricants and greases.	
182	benzen-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7	Endocrine disrupting properties (Article 57(f) - environment)	Epoxy hardeners, coatings, pigments, surfactants, adhesives	
183	Benzo[ghi]perylene	191-24-2	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Impurity in carbon black	
184	Decamethylcyclotrasiloxane (D5)	541-02-6	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Raw material for cleaning products, waxes, cosmetics, personal care products, silicone products	
185	Dicyclohexyl phthalate (DCHP)	84-61-7	Toxic for Reproduction Endocrine disrupting properties (Article 57(f) - environment)	Plasticizer for moisture-proof cellophane; PVC, rubber, plastic products	
186	Disodium octaborate	12008-41-2	Toxic for Reproduction	Insect repellent, preservative, termite prevention agent for wood, etc.	
187	Dodecamethylcyclotrasiloxane (D6)	540-97-6	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Raw material for cleaning products, waxes, cosmetics, personal care products, silicone products	
188	Ethylenediamine	107-15-3	Endocrine disrupting properties (Article 57(f) - environment)	Epoxy resins, adhesives, surfactants, coating products, putties	
189	Lead	7439-92-1	Toxic for Reproduction	Alloys (iron, copper), solders, metal surface treatment, polymers	
190	Octamethylcyclotetrasiloxane (D4)	556-67-2	Persistent, Bioaccumulative, Toxic, Very Persistent, Very Bioaccumulative	Cleaning products, waxes, cosmetics, personal care products	
191	Terphenyl hydrogenated	61788-32-7	Very Persistent, Very Bioaccumulative	Plastic additives, solvents, coatings/inks, adhesives, sealants, heat transfer media	
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	Toxic for Reproduction	Thermo sensitive paper, chemicals/insecticides, surface coatings, inks, adhesives, synthetic resin additives, raw materials for liquid crystal, photosensitizers, information recording agents, engineering plastic materials, electro-functional materials, photo-functional materials, raw materials for polycarbonate resin, raw materials for epoxy resin	
193	Benzo[k]fluoranthene	207-08-9	Carcinogenic Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	Included as impurity in carbon black	
194	Fluoranthene	206-44-0 93951-69-0	Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	Included as impurity in carbon black	
195	Phenanthrene	85-01-8	Very Persistent, Very Bioaccumulative	Included as impurity in carbon black Intermediates of functional compounds such as pigments or pharmaceuticals	
196	Pyrene	129-00-0 1718-52-1	Persistent, Bioaccumulative, Toxic Very Persistent, Very Bioaccumulative	Included as impurity in coal tar oil, raw materials for tar products, rust preventives, fishing net dyes, soot, fuels, road pavement, roof coatings, cast iron pipe coatings, waterproof coatings, electrode binders, fluorescent sensors, fluorescent dyes	
197	1,7,7-trimethyl-3-(phenylmethylene) bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	Equivalent level of concern having probable serious effects to human health and environment	Cosmetics, sunscreens	

(Note1) Since No.52,55,90,91,143,158,163,173,181 and No.44(Oligomers of chromic acid and dichromic acid) do not have CAS No., JAMP (Joint Article Management Promotion-consortium) has assigned appropriate numbers due to the necessity of information distribution.

(Note2) "Zirconia Aluminosilicate Refractory Ceramic Fibres" and "Aluminosilicate Refractory Ceramic Fibres" each placed two kinds of materials which differed of the chemical composition. We integrated it with one kind based on the list of ECHA exhibitions June 18, 2012.