



## REACH SVHC Services

### REACH - SVHC Analysis & Risk Assessment

TÜV Rheinland offers SVHC (Substances of Very High Concern) Analysis and Risk Assessment services.

SVHC (Substances of Very High Concern) is defined in REACH regulation Article 57 for the purpose of authorization. TÜV Rheinland recommends a three steps risk analysis approach.

- **Step 1** - Assessment of the all the material to identify the high risk material
- **Step 2** - SVHC analysis using ICP-OES and GCMS techniques
- **Step 3** - Determination of any obligation under article 33 – Duty to communicate on substances in article

### Obligation under Article 33 – Duty to Communicate information

	Obligation	Effective date	Actions may need to be taken by manufacturers, importers and retailers
Articles in SVHC	Provide Chemical information	October 28, 2008	Suppliers of articles containing substances on the REACH SVHC Candidate list in a concentration above 0.1% (w/w) must provide sufficient information, available to them, to their customers and on request to consumers within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.
	Notification ECHA	to December 1, 2012	Producers or importers of articles have to notify ECHA when their article contains a substance on the REACH SVHC Candidate List. This obligation applies if the substance is present above 0.1% (w/w) and its quantities in the produced/ imported articles are above 1 tone in total per year per company.

For substances included in the Candidate List on or after 20th June 2016, the notifications have to be submitted no later than 6 months after the inclusion.

## SVHCs on the REACH Authorization & Candidate List on June 2016

	Substance name	CAS Number		Substance name	CAS Number
1	Cadmium sulphide	1306-23-6	31	Trilead bis(carbonate)dihydroxide	1319-46-6
2	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	32	4,4'-methylenedi-o-toluidine	838-88-0
3	Dihexyl phthalate	84-75-3	33	Diethyl sulphate	64-67-5
4	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	34	Dimethyl sulphate	77-78-1
5	Trixylyl phosphate	25155-23-1	35	N,N-dimethylformamide	68-12-2
6	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	36	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated	--
7	Lead di(acetate)	301-04-2	37	4-Nonylphenol, branched and linear	--
8	Cadmium	7440-43-9	38	Furan	110-00-9
9	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	39	Lead oxide sulfate	12036-76-9
10	4-Nonylphenol, branched and linear, ethoxylated	--	40	Lead titanium trioxide	12060-00-3
11	Pentadecafluorooctanoic acid (PFOA)	335-67-1	41	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	1163-19-5
12	Dipentyl phthalate (DPP)	131-18-0	42	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7
13	Cadmium oxide	1306-19-0	43	1,2-Diethoxyethane	629-14-1
14	Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4]	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	44	N-methylacetamide	79-16-3
15	6-methoxy-m-toluidine (p-cresidine)	120-71-8	45	Tetralead trioxide sulphate	12202-17-4
16	Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3]	85-42-7, 13149-00-3, 14166-21-3	46	Acetic acid, lead salt, basic	51404-69-4
17	Pyrochlore, antimony lead yellow	8012-00-8	47	[Phthalato(2-)]dioxotrilead	69011-06-9
18	Henicosfluoroundecanoic acid	2058-94-8	48	Tetraethyllead	78-00-2
19	4-Aminoazobenzene	60-09-3	49	N-pentyl-isopentylphthalate	776297-69-9
20	Silicic acid, lead salt	11120-22-2	50	Pentalead tetraoxide sulphate	12065-90-6
21	Lead titanium zirconium oxide	12626-81-2	51	Heptacosfluorotetradecanoic acid	376-06-7
22	Lead monoxide (lead oxide)	1317-36-8	52	Tricosfluorododecanoic acid	307-55-1
23	o-Toluidine	95-53-4	53	1-bromopropane (n-propyl bromide)	106-94-5
24	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	54	Dioxobis(stearato)trilead	12578-12-0
25	Dibutyltin dichloride (DBTC)	683-18-1	55	Pentacosfluorotridecanoic acid	72629-94-8
26	Lead bis(tetrafluoroborate)	13814-96-5	56	Methoxyacetic acid	625-45-6
27	Lead dinitrate	10099-74-8	57	Methyloxirane (Propylene oxide)	75-56-9
28	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped	68784-75-8	58	Trilead dioxide phosphonate	12141-20-7
29	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	59	o-aminoazotoluene	97-56-3
30	Lead chromate	7758-97-6	60	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7
			61	Diisopentylphthalate	605-50-5
			62	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
			63	Biphenyl-4-ylamine	92-67-1
			64	Fatty acids, C16-18, lead salts	91031-62-8
			65	Orange lead (lead tetroxide)	1314-41-6
			66	4,4'-oxydianiline and its salts	101-80-4
			67	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3
			68	Sulfurous acid, lead salt, dibasic	62229-08-7
			69	Anthracene oil, anthracene-low	90640-82-7
			70	Diisobutyl phthalate	84-69-5
			71	Anthracene oil, anthracene paste	90640-81-6

	Substance name	CAS Number
72	Lead cyanamidate	20837-86-9
73	$\alpha, \alpha$ -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
74	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
75	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)	59653-74-6
76	Diboron trioxide	1303-86-2
77	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
78	Formamide	75-12-7
79	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1
80	Lead(II) bis(methanesulfonate)	17570-76-2
81	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
82	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
83	[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
84	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9
85	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8
86	Phenolphthalein	77-09-8
87	N,N-dimethylacetamide	127-19-5
88	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9
89	Lead diazide, Lead azide	13424-46-9
90	Lead dipicrate	6477-64-1
91	1,2-dichloroethane	107-06-2
92	Calcium arsenate	7778-44-1
93	Dichromium tris(chromate)	24613-89-6
94	2-Methoxyaniline; o-Anisidine	90-04-0
95	Pentazinc chromate octahydroxide	49663-84-5
96	Zirconia Aluminosilicate Refractory Ceramic Fibres	--
97	Arsenic acid	7778-39-4
98	Potassium hydroxyoctaoxidizincatedichromate	11103-86-9
99	Formaldehyde, oligomeric reaction products with aniline	25214-70-4
100	Lead styphnate	15245-44-0
101	Bis(2-methoxyethyl) phthalate	117-82-8
102	Trilead diarsenate	3687-31-8
103	Tris(2-chloroethyl)phosphate	115-96-8
104	Sodium Peroxometaborate	4/4/7632

	Substance name	CAS Number
105	Aluminosilicate Refractory Ceramic Fibres	--
106	Bis(2-methoxyethyl) ether	111-96-6
107	2,2'-dichloro-4,4'-methylenedianiline	101-14-4
108	Cobalt dichloride	7646-79-9
109	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6
110	Strontium chromate	7789-06-2
111	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4
112	1-Methyl-2-pyrrolidone	872-50-4
113	1,2,3-Trichloropropane	96-18-4
114	2-Ethoxyethyl acetate	111-15-9
115	Hydrazine	302-01-2, 7803-57-8
116	Cobalt(II) diacetate	71-48-7
117	2-Ethoxyethanol	110-80-5
118	Cobalt(II) sulphate	10124-43-3
119	Acids generated from chromium trioxide and their oligomers. Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.	7738-94-5, 13530-68-2
120	2-Methoxyethanol	109-86-4
121	Chromium trioxide	1333-82-0
122	Cobalt(II) carbonate	513-79-1
123	Cobalt(II) dinitrate	10141-05-6
124	Trichloroethylene	79-01-6
125	Potassium dichromate	7778-50-9
126	Ammonium dichromate	7789-09-5
127	Tetraboron disodium heptaoxide, hydrate	12267-73-1
128	Boric acid	10043-35-3, 11113-50-1
129	Sodium chromate	7775-11-3
130	Disodium tetraborate, anhydrous	1303-96-4, 1330-43-4, 12179-04-3
131	Potassium chromate	7789-00-6
132	Acrylamide	79-06-1
133	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
134	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8
135	2,4-Dinitrotoluene	121-14-2
136	Anthracene oil	90640-80-5
137	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
138	Cadmium Chloride	10108-64-2
139	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8

	Substance name	CAS Number
140	Pitch, coal tar, high temp.	65996-93-2
141	Anthracene oil, anthracene paste, distn. lights	91995-17-4
142	Lead hydrogen arsenate	7784-40-9
143	Benzyl butyl phthalate (BBP)	85-68-7
144	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7
145	Bis(tributyltin)oxide (TBTO)	56-35-9
146	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
147	Diarsenic trioxide	1327-53-3
148	Triethyl arsenate	15606-95-8
149	Diarsenic pentaoxide	1303-28-2
150	Sodium dichromate	7789-12-0, 10588-01-9
151	Dibutyl phthalate (DBP)	84-74-2
152	4,4'- Diaminodiphenylmethane (MDA)	101-77-9
153	Anthracene	120-12-7
154	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 stereoisomers of [1] and [2] or any combination thereof]	--
155	Cadmium sulphate	233-331-6
156	1,3-propanesultone	1120-71-4
157	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1
158	Nitrobenzene	98-95-3

	Substance name	CAS Number
159	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
160	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)
161	1,2- Bezenedicarboxylic Acid, Dihexyl Ester Branched And Linear	68515-50-4
162	Sodium Perborate; Perboric Acid, Sodium Salt	--
163	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6
164	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4
165	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)	
166	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8
167	Cadmium fluoride	232-222-0
168	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3
169	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4

Substances that appear on the Authorization List can, after a transition period, only be used if a specific authorization is granted.

According to the latest update on 19th August 2014 by the European Chemicals Agency (ECHA) the authorisation list contains 31 substances.

Three EU Member States – Denmark, France and Germany - have put forward proposals to identify eight chemical substances as Substances of Very High Concern (SVHC) posed for identification as Substances of Very High Concern (SVHC), reasons for their proposal, and their potential uses according to information provided in the Annex XV dossiers submitted by EU Member States.

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