

Statement on REACH Articles Provisions from Frecom

This document outlines Chenzhou Frecom Electronics Co., Ltd. and Dongguan Frecom holdings Co., Ltd. (Frecom)'s current understanding of obligations for communication of substances of very high concern in articles and disclosure of Frecom's actions to appropriately address such requirements.

With regard to the Substances of Very High Concern (SVHCs) candidate list published on the European Chemicals Agency (ECHA) website, based on information from our suppliers and internal chemical conformity processes Frecom's products *do not contain any of the SVHC candidates listed herein above the regulatory threshold of 0.1%, unless otherwise specified.* However, all Frecom RoHS exempt products' contain the SVHC lead (Pb) at greater than 0.1%. Frecom is currently engaging with its suppliers to obtain additional information and assurances. As the ECHA SVHCs list is updated, Frecom will provide information to its customers in a timely manner concerning their use or non-use within finished products.

In some of Frecom's Bill of Materials descriptions Boron trioxide (B₂O₃) (CAS #1303-86-2) will be used as a component of glass. The use of B₂O₃ is as a chemical intermediate to make glass and is therefore not an SVHC. There are no known uses of REACH SVHCs contained in packing materials used for shipping Frecom's products.

The following list of SVHC candidates was last updated by ECHA on June 26, 2020 and includes 209 substances.

Initial: REACH Candidate List on 28 October 2008			
Substance Category Name	CAS number(s) published by ECHA	EC number	Identification as a Basic SVHC
Triethyl arsenate	15606-95-8	427-700-2	Carcinogenic, article 57a
Sodium dichromate, dihydrate	7789-12-0, 10588-01-9	234-190-3	Carcinogenic, mutagenic and toxic for reproduction, article 57a, 57b & 57c
Lead hydrogen arsenate	7784-40-9	232-064-2	Carcinogenic and toxic for reproduction, article 57a & 57c
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	25637-99-4, 3194-55-6, 134237-50-6, 134237-51-7, 134237-52-8	247-148-4 221-695-9	PBT, article 57d
Dibutyl phthalate (DBP)	84-74-2	201-557-4	Toxic for reproduction, article 57c
Diarsenic trioxide	1327-53-3	215-481-4	Carcinogenic, article 57a
Diarsenic pentoxide	1303-28-2	215-116-9	Carcinogenic, article 57a
Tributyl tin oxide (TBTO)	56-35-9	200-268-0	PBT, article 57d
Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	204-211-0	Toxic for reproduction, article 57c <i>Also Included on REACH SVHC List 2014/12/17</i>
Benzyl butyl phthalate (BBP)	85-68-7	201-622-7	Toxic for reproduction, article 57c
Anthracene	120-12-7	204-371-1	PBT, article 57d
Alkanes, Shortchain Chlorinated Paraffins	85535-84-8	287-476-5	PBT and vPvB, article 57d & e

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Alkanes, Shortchain Chlorinated Paraffins	85535-84-8	287-476-5	PBT and vPvB, article 57d & e

(C10 - C13)			
5-tert-butyl-2,4,6-trinitro-m-xylene	81-15-2	201-329-4	vPvB, article 57e
4,4'- Diaminodiphenylmethane	101-77-9	202-974-4	Carcinogenic, article 57a
Cobalt dichloride (CoCl ₂)	7646-79-9	231-589-4	Carcinogenic and toxic for reproduction, article 57a & 57c <i>Also Included on REACH SVHC List 2011/06/20</i>

Update: REACH Candidate List on 13 January 2010

Tris (2-chloroethyl) phosphate (TCEP)	115-96-8	204-118-5	Toxic for reproduction, article 57c
Coal tar pitch, high temperature	65996-93-2	266-028-2	Carcinogenic, PBT and vPvB, articles a, d & e
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7	Carcinogenic, toxic for reproduction, article 57a & 57c
Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	235-759-9	Carcinogenic and toxic for reproduction, article 57a & 57c
Lead chromate	7758-97-6	231-846-0	Carcinogenic and toxic for reproduction, article 57a & 57c
Diisobutyl phthalate (DIBP)	84-69-5	201-553-2	Toxic for reproduction, article 57c
Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5	Carcinogenic, Mutagenic, PBT and vPvB, articles a, b, d & e
Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9	Carcinogenic, Mutagenic, PBT and vPvB, articles a, b, d & e
Anthracene oil, anthracene paste	90640-81-6	292-603-2	Carcinogenic, Mutagenic, PBT and vPvB, articles a, b, d & e
Anthracene oil, anthracene-low	90640-82-7	292-604-8	Carcinogenic, Mutagenic, PBT and vPvB, articles a, b, d & e
Anthracene oil	90640-80-5	292-602-7	Carcinogenic, PBT and vPvB, articles a, d & e
2,4-Dinitrotoluene	121-14-2	204-450-0	Carcinogenic, article 57a

Update: REACH Candidate List on 30 March 2010

Acrylamide	79-06-1	201-173-7	Carcinogenic and mutagenic, article 57a & 57b
Sodium chromate	7775-11-3	231-889-5	Carcinogenic, mutagenic and toxic for reproduction, article 57a, 57b & 57c
Potassium chromate	7789-00-6	232-140-5	Carcinogenic, mutagenic, article 57a & 57b
Ammonium dichromate	7789-09-5	232-143-1	Carcinogenic, mutagenic and toxic for reproduction, article 57a, 57b & 57c
Potassium dichromate	7778-50-9	231-906-6	Carcinogenic, mutagenic and toxic for reproduction, article 57a, 57b & 57c
Tetraboron disodium heptaoxide, hydrate	12267-73-1	235-541-3	Toxic for reproduction, article 57c
Disodium tetraborate, anhydrous	1303-96-4, 1330-43-4, 12179-04-3	215-540-4	Toxic for reproduction, article 57c
Boric acid	10043-35-3, 11113-50-1	233-139-2, 234-343-4	Toxic for reproduction, article 57c
Trichloroethylene	79-01-6	201-167-4	Carcinogenic, article 57a

Update: REACH Candidate List on 15 December 2010

Chromium Trioxide	1333-82-0	215-607-8	Carcinogenic and mutagenic, article 57a &
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			57b
Acids generated from chromium trioxide and their oligomers. <i>Names of the acids and their oligomers: Chromic acid, Dichromic acid, Oligomers of chromic acid and dichromic acid.</i>	7738-94-5, 13530-68-2	231-801-5, 236-881-5	Carcinogenic, article 57a
2-Ethoxyethanol	110-80-5	203-804-1	Toxic for reproduction, article 57c
2-Methoxyethanol	109-86-4	203-713-7	Toxic for reproduction, article 57c
Cobalt(II) Diacetate	71-48-7	200-755-8	Carcinogenic and toxic for reproduction, article 57a & 57C
Cobalt(II) Carbonate	513-79-1	208-169-4	Carcinogenic and toxic for reproduction, article 57a & 57C
Cobalt(II) Dinitrate	10141-05-6	233-402-1	Carcinogenic and toxic for reproduction, article 57a & 57C
Cobalt(II) Sulphate	10124-43-3	233-334-2	Carcinogenic and toxic for reproduction, article 57a & 57c
Update: REACH Candidate List on 20 June 2011			
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	271-084-6	Toxic for reproduction, article 57c
1,2,3-Trichloropropane	96-18-4	202-486-1	Carcinogenic and toxic for reproduction, article 57a & 57C
1-Methyl-2-pyrrolidone	872-50-4	212-828-1	Toxic for reproduction, article 57c
Hydrazine	302-01-2, 7803-57-8	206-114-9	Carcinogenic, article 57a
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	276-158-1	Toxic for reproduction, article 57c
Strontium chromate	7789-06-2	232-142-6	Carcinogenic, article 57a
2-Ethoxyethyl acetate	111-15-9	203-839-2	Toxic for reproduction, article 57c
Update: REACH Candidate List on 19 December 2011			
2,2'-dichloro-4,4'-methylenedianiline	101-14-4	202-918-9	Carcinogenic, article 57a
Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	Toxic for reproduction, article 57c
Bis(2-methoxyethyl) ether	111-96-6	203-924-4	Toxic for reproduction, article 57c
Calcium arsenate	7778-44-1	231-904-5	Carcinogenic, article 57 a
Potassium hydroxyoctaoxidizincatedichromate	11103-86-9	234-329-8	Carcinogenic, article 57 a
Lead dipicrate	6477-64-1	229-335-2	Toxic for reproduction, article 57c
N,N-dimethylacetamide	127-19-5	204-826-4	Toxic for reproduction, article 57c
Arsenic acid	7778-39-4	231-901-9	Carcinogenic, article 57 a
2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	Carcinogenic, article 57 a
Trilead diarsenate	3687-31-8	222-979-5	Carcinogenic and toxic for reproduction, article 57a & 57C
1,2-dichloroethane	107-06-2	203-458-1	Carcinogenic, article 57 a
Pentazinc chromate octahydroxide	49663-84-5	256-418-0	Carcinogenic, article 57 a
Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	Carcinogenic, article 57 a
4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	205-426-2	Equivalent level of concern having probable serious effects to the environment, article 57 f
Lead diazide, Lead azide	13424-46-9	236-542-1	Toxic for reproduction, article 57c

Phenolphthalein	77-09-8	201-004-7	Carcinogenic, article 57 a
Dichromium tris(chromate)	24613-89-6	246-356-2	Carcinogenic, article 57 a
Lead styphnate	15245-44-0	239-290-0	Toxic for reproduction, article 57c
Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight.	No CAS number(s) provided	No EC number(s) provided	Carcinogenic, article 57 a <i>Was also on REACH SVHC list published 13/01/2010</i>
Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00- 8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: 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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight	No CAS number(s) provided	No EC number(s) provided	Carcinogenic, article 57 <i>Was also on REACH SVHC list published 13/01/2010</i>
Update: REACH Candidate List on 18 June 2012			
Diboron trioxide	1303-86-2	215-125-8	Toxic for reproduction, article 57c
Lead(II) bis(methanesulfonate)	17570-76-2	401-750-5	Toxic for reproduction, article 57c
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3	Toxic for reproduction, article 57c
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	Toxic for reproduction, article 57c
Formamide	75-12-7	200-842-0	Toxic for reproduction, article 57c
1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	219-514-3	Mutagenic (Article 57b)
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-	59653-74-6	423-400-0	Mutagenic (Article 57b)

1,3,5-triazine- 2,4,6-(1H,3H,5H)-trione (B-TGIC)			
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5	Carcinogenic, article 57a
N,N,N',N'-tetramethyl-4,4'- methylenedianiline (Michler's base)	101-61-1	202-959-2	Carcinogenic (Article 57a)
[4-[[4-anilino-1-naphthyl][4- (dimethylamino)phenyl] methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	2580-56-5	219-943-6	Carcinogenic, article 57a
a,a-Bis[4-(dimethylamino)phenyl]-4 (phenylamino) naphthalene-1-methanol (C.I. Solvent Blue 4) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	6786-83-0	229-851-8	Carcinogenic (Article 57a)
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa- 2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	548-62-9	208-953-6	Carcinogenic (Article 57a)
4,4'-bis(dimethylamino)-4''- (methylamino)trityl alcohol [with greater than or equal to 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202- 959-2)]	561-41-1	209-218-2	Carcinogenic, article 57a
Update: REACH Candidate List on 19 December 2012			
Pyrochlore, antimony lead yellow	8012-00-8	232-382-1	Toxic for reproduction (Article 57 c)
6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	Carcinogenic (Article 57a)
Henicosafuoroundecanoic acid	2058-94-8	218-165-4	vPvB (Article 57 e)
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	247-094-1, 243-072-0, 256-356-4, 260-566-1	Equivalent level of concern having probable serious effects to human health (Article 57 f)
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	85-42-7, 13149-00-3, 14166-21-3	201-604-9, 236-086-3, 238-009-9	Equivalent level of concern having probable serious effects to human health (Article 57 f)

combinations of the cis- and transisomers [1] are covered by this entry]			
Dibutyltin dichloride (DBTC)	683-18-1	211-670-0	Toxic for reproduction (Article 57 c)
Lead bis(tetrafluoroborate)	13814-96-5	237-486-0	Toxic for reproduction (Article 57 c)
Lead dinitrate	10099-74-8	233-245-9	Toxic for reproduction (Article 57 c)
Silicic acid, lead salt	11120-22-2	234-363-3	Toxic for reproduction (Article 57 c)
4-Aminoazobenzene	60-09-3	200-453-6	Carcinogenic (Article 57a)
Lead titanium zirconium oxide	12626-81-2	235-727-4	Toxic for reproduction (Article 57 c)
Lead monoxide (lead oxide)	1317-36-8	215-267-0	Toxic for reproduction (Article 57 c)
o-Toluidine	95-53-4	202-429-0	Carcinogenic (Article 57a)
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	Toxic for reproduction (Article 57c)
Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped [<i>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</i>]	68784-75-8	272-271-5	Toxic for reproduction (Article 57 c)
Trilead bis(carbonate)dihydroxide	1319-46-6	215-290-6	Toxic for reproduction (Article 57 c)
Furan	110-00-9	203-727-3	Carcinogenic (Article 57a)
N,N-dimethylformamide	68-12-2	200-679-5	Toxic for reproduction (Article 57 c)
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	No CAS number(s) provided	No EC number(s) provided	Equivalent level of concern having probable serious effects to human health (Article 57 f)
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]	No CAS number(s) provided	No EC number(s) provided	Equivalent level of concern having probable serious effects to human health (Article 57 f)
4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	Carcinogenic (Article 57a)
Diethyl sulphate	64-67-5	200-589-6	Carcinogenic (Article 57a); Mutagenic (Article 57b)
Dimethyl sulphate	77-78-1	201-058-1	Carcinogenic (Article 57a)
Lead oxide sulfate	12036-76-9	234-853-7	Toxic for reproduction (Article 57 c)
Lead titanium trioxide	12060-00-3	235-038-9	Toxic for reproduction (Article 57 c)
Acetic acid, lead salt, basic	51404-69-4	257-175-3	Toxic for reproduction (Article 57 c)
[Phthalato(2-)]dioxotrilead	69011-06-9	273-688-5	Toxic for reproduction (Article 57 c)
Bis(pentabromophenyl)ether decabromodiphenyl ether; DecaBDE)	1163-19-5	214-604-9	PBT (Article 57 d); vPvB (Article 57 e)
N-methylacetamide	79-16-3	201-182-6	Toxic for reproduction (Article 57c)
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	201-861-7	Toxic for reproduction (Article 57c)
1,2-Diethoxyethane	629-14-1	211-076-1	Toxic for reproduction (Article 57 c)
Tetrolead trioxide sulphate	12202-17-4	235-380-9	Toxic for reproduction (Article 57c)

N-pentyl-isopentylphthalate	776297-69-9	No EC number(s) provided	Toxic for reproduction (Article 57 c)
Dioxobis(stearato)trilead	12578-12-0	235-702-8	Toxic for reproduction (Article 57 c)
Tetraethyllead	78-00-2	201-075-4	Toxic for reproduction (Article 57c)
Pentalead tetraoxide sulphate	12065-90-6	235-067-7	Toxic for reproduction (Article 57 c)
Pentacosafuorotridecanoic acid	72629-94-8	276-745-2	vPvB (Article 57 e)
Tricosafuorododecanoic acid	307-55-1	206-203-2	vPvB (Article 57 e)
Heptacosafuorotetradecanoic acid	376-06-7	206-803-4	vPvB (Article 57 e)
1-bromopropane (n-propyl bromide)	106-94-5	203-445-0	Toxic for reproduction (Article 57 c)
Methoxyacetic acid	625-45-6	210-894-6	Toxic for reproduction (Article 57 c)
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	202-453-1	Carcinogenic (Article 57a)
Methyloxirane (Propylene oxide)	75-56-9	200-879-2	Carcinogenic (Article 57a); Mutagenic (Article 57b)
Trilead dioxide phosphonate	12141-20-7	235-252-2	Toxic for reproduction (Article 57c)
o-aminoazotoluene	97-56-3	202-591-2	Carcinogenic (Article 57a)
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	Toxic for reproduction (Article 57 c)
4,4'-oxydianiline and its salts	101-80-4	202-977-0	Carcinogenic (Article 57a); Mutagenic (Article 57b)
Orange lead (lead tetroxide)	1314-41-6	215-235-6	Toxic for reproduction (Article 57 c)
Biphenyl-4-ylamine	92-67-1	202-177-1	Carcinogenic (Article 57a)
Diisopentylphthalate (DIPP)	605-50-5	210-088-4	Toxic for reproduction (Article 57 c)
Fatty acids, C16-18, lead salts	91031-62-8	292-966-7	Toxic for reproduction (Article 57 c)
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)	123-77-3	204-650-8	Equivalent level of concern having probable serious effects to human health (Article 57 f)
Sulfurous acid, lead salt, dibasic	62229-08-7	263-467-1	Toxic for reproduction (Article 57 c)
Lead cyanamidate	20837-86-9	244-073-9	Toxic for reproduction (Article 57 c)
Update: REACH Candidate List on 20 June 2013			
Cadmium	7440-43-9	231-152-8	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57f)
Cadmium oxide	1306-19-0	215-146-2	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57f)
Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	Toxic for reproduction (Article 57c); PBT (Article 57d)
Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	Toxic for reproduction (Article 57c); PBT (Article 57d)
Dipentyl phthalate (DPP)	131-18-0	205-017-9	Toxic for reproduction (Article 57c)
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,	No CAS number(s) provided	No EC number(s) provided	Equivalent level of concern having probable serious effects to the environment (Article 57f)

ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]			
Update: REACH Candidate List on 16 December 2013			
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	217-710-3	Carcinogenic (Article 57a)
Trixylyl phosphate	25155-23-1	246-677-8	Toxic for reproduction (Article 57c)
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	209-358-4	Carcinogenic (Article 57a)
Dihexyl phthalate	84-75-3	201-559-5	Toxic for reproduction (Article 57c)
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	202-506-9	Toxic for reproduction (Article 57c)
Cadmium sulphide	1306-23-6	215-147-8	Carcinogenic (Article 57a); Equivalent level of concern having probable serious effects to human health (Article 57f)
Lead di(acetate)	301-04-2	206-104-4	Toxic for reproduction (Article 57c)
Update: REACH Candidate List on 16 June 2014			
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	Toxic for reproduction (Article 57c)
Cadmium chloride	10108-64-2	233-296-7	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
Sodium perborate; perboric acid, sodium salt	No CAS number(s) provided	239-172-9; 234-390-0	Toxic for reproduction (Article 57c)
Sodium peroxometaborate	7632-04-4	231-556-4	Toxic for reproduction (Article 57c)
Update: REACH Candidate List on 17 Dec 2014			
Cadmium fluoride	7790-79-6	232-222-0	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57f)
Cadmium sulfate	10124-36-4 31119-53-6	233-331-6	Carcinogenic (Article 57a); Mutagenic (Article 57b); Toxic for reproduction (Article 57c); Equivalent level of concern having probable serious effects to human health (Article 57 f)
2-Benzotriazol-2-yl-4, 6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6	PBT (Article 57d); vPvB (Article 57e)
2-(2H-benzotriazol-2-yl)-4, 6-ditertpentylphenol (UV-328)	25973-55-1	247-384-8	PBT (Article 57d); vPvB (Article 57e)

2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatefradecanoate (DOTE)	15571-58-1	239-622-4	Toxic for reproduction (Article 57c)
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-Il2[(2ethylhexyl)oxy]-2-oxoethylthio}-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	No CAS number(s) provided	No EC number(s) provided	Toxic for reproduction (Article 57c)
Update: REACH Candidate List on 15 Jun 2015			
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with greater than or equal to 0.3% of dihexyl phthalate	68515-51-5, 68648-93-1	271-094-0; 272-013-1	Toxic for reproduction (Article 57c)
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]	No CAS number(s) provided	No EC number(s) provided	vPvB (Article 57e)
Update: REACH Candidate List on 17 Dec 2015			
1,3-propanesultone	1120-71-4	214-317-9	Carcinogenic (Article 57 a)
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	vPvB (Article 57 e)
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	vPvB (Article 57 e)
Nitrobenzene	98-95-3	202-716-0	Toxic for reproduction (Article 57 c)
Perfluorononan-1-oi-c-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	Toxic for reproduction (Article 57 c); PBT (Article 57 d)
Update: REACH Candidate List on 20 June 2016			
Benzo[def]chrysene	50-32-8	200-028-5	Carcinogenic (Article 57 a), Mutagenic (Article 57b), Toxic for reproduction (Article 57c), PBT (Article 57 d), vPvB (Article 57 e)
Update: REACH Candidate List on 12 January 2017			
4,4'-isopropylidenediphenol (bisphenol A; BPA)	201-245-8	80-05-7	Toxic for reproduction (Article 57c)
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	206-400-3	335-76-2 3830-45-3 3108-42-7	Toxic for reproduction (Article 57c) PBT (Article 57d)
p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	Equivalent level of concern having probable serious effects to environment (Article 57f)
4-heptylphenol, branched and linear [substances with a linear and/or branched	No CAS number(s)	No EC number(s)	Equivalent level of concern having probable serious effects to environment (Article 57f)

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]	provided	provided	
Update: REACH Candidate List on 7 July 2017			
Perfluorohexane-1-sulphonic acid and its salts PFHxS	No CAS number(s) provided	No EC number(s) provided	vPvB (Article 57e)
Update: REACH Candidate List on 15 January 2018			
Benz[a]anthracene	56-55-3, 1718-53-2	200-280-6	Carcinogenic (Article 57a); PBT (Article 57d) vPvB (Article 57e)
Cadmium carbonate	513-78-0	208-168-9	Carcinogenic (Article 57a); Mutagenic (Article 57b); Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
Cadmium hydroxide	21041-95-2	244-168-5	Carcinogenic (Article 57a); Mutagenic (Article 57b); Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
Cadmium nitrate	10022-68-1, 10325-94-7	233-710-6	Carcinogenic (Article 57a); Mutagenic (Article 57b); Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
Chrysene	218-01-9, 1719-03-5	205-923-4	Carcinogenic (Article 57a); PBT (Article 57d); vPvB (Article 57e)
Dodecachloropentacyclo[12.2.1.16,9.02,13.0 5,10]octadeca-7,15-diene ("Dechlorane Plus" [™])	No CAS number(s) provided	No EC number(s) provided	vPvB (Article 57e)
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	No CAS number(s) provided	No EC number(s) provided	Endocrine disrupting properties (Article 57(f) - environment)
Update: REACH Candidate List on 27 June 2018			
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	552-30-7	209-008-0	Respiratory sensitising properties (Article 57(f) - human health)
Benzo[ghi]perylene	191-24-2	205-883-8	PBT (Article 57d); vPvB (Article 57e)
Decamethylcyclotetrasiloxane	541-02-6	208-764-9	PBT (Article 57d); vPvB (Article 57e)
Dicyclohexyl phthalate	84-61-7	201-545-9	Toxic for reproduction (Article 57c); Endocrine disrupting properties (Article 57(f) - human health)
Disodium octaborate	12008-41-2	234-541-0	Toxic for reproduction (Article 57c)
Dodecamethylcyclotetrasiloxane	540-97-6	208-762-8	PBT (Article 57d); vPvB (Article 57e)
Ethylenediamine	107-15-3	203-468-6	Respiratory sensitising properties (Article 57(f) - human health)
Lead	7439-92-1	231-100-4	Toxic for reproduction (Article 57c)
Octamethylcyclotetrasiloxane	556-67-2	209-136-7	PBT (Article 57d); vPvB (Article 57e)
Terphenyl, hydrogenated	61788-32-7	262-967-7	vPvB (Article 57e)

Update: REACH Candidate List on 15 January 2019			
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	15087-24-8	239-139-9	Endocrine disrupting properties (Article 57(f) - environment)
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	Toxic for reproduction (Article 57c); Carcinogenic (Article 57a)
Benzo[k]fluoranthene	207-08-9	205-916-6	Carcinogenic (Article 57a); PBT (Article 57d); vPvB (Article 57e)
Fluoranthene	206-44-0; 93951-69-0	205-912-4	PBT (Article 57d); vPvB (Article 57e)
Phenanthrene	85-01-8	201-581-5	vPvB (Article 57e)
Pyrene	129-00-0; 1718-52-1	204-927-3	PBT (Article 57d); vPvB (Article 57e)
Update: REACH Candidate List on 16 July 2019			
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides covering any of their individual isomers and combinations thereof	No CAS number(s) provided	No EC number(s) provided	Endocrine disrupting properties (Article 57(f) - environment)
2-methoxyethyl acetate	110-49-6	203-772-9	Toxic for reproduction (Article 57c)
4-tert-butylphenol	98-54-4	202-679-0	Endocrine disrupting properties (Article 57(f) - environment)
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	No CAS number(s) provided	No EC number(s) provided	Endocrine disrupting properties (Article 57(f) - environment)
Update: REACH Candidate List on 16 January 2020			
Perfluorobutane sulfonic acid (PFBS) and its salts	No CAS number(s) provided	No EC number(s) provided	Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health) Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment)
Diisohexyl phthalate	71850-09-4	276-090-2	Toxic for reproduction (Article 57c)
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	Toxic for reproduction (Article 57c)
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	Toxic for reproduction (Article 57c)
Update: REACH Candidate List on 26 June 2020			
1-vinylimidazole	1072-63-5	214-012-0	Toxic for reproduction (Article 57c)
2-methylimidazole	693-98-1	211-765-7	Toxic for reproduction (Article 57c)
Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	Toxic for reproduction (Article 57c)
Butyl 4-hydroxybenzoate (Butylparaben)	94-26-8	202-318-7	Endocrine disrupting properties - human health (Article 57(f) - human health)

Currently no substances in Frecom's products and packing materials used for shipping Frecom's products are listed under the restriction provisions of REACH Annex XVII.

Frecom has taken and continues to take commercially reasonable steps to provide representative and accurate information concerning the application of REACH on Frecom's products.

Frecom relies on information from third parties, including suppliers and may not have conducted destructive testing or chemical analysis on incoming materials and chemicals. Frecom's standard warranty and

limitation of liability provisions of Frecom's Standard Terms and Conditions apply to the representations herein unless otherwise provided by a written contract or other agreement signed by the parties.

Our point of contact for REACH is:

Dongguan Frecom holdings Co., Ltd.

A6 Building, 2025 Science and Technology Park of Silicon Valley Power, Dongcheng District, Dongguan City, Guangdong Province, China.

Tel: +86 (0769) 2316 0059, Email: rohs@frecom.com.cn

Signature:

Title: General Manager

Date: 2020/9/24

