

Curtiss-Wright
Exlar Automation Actuation Group
18400 West 77th Street, Chanhassen, 55317

REACH Substances of Very High Concern (SVHC)

July 8, 2019

Under Article 33 of EU REACH Regulation (1907/2006), Curtiss Wright has a duty to communicate to our customers the presence of SVHCs in excess of 0.1% by weight of articles (as defined by Court of Justice of the European Union Case C-106/14) contained in our products.

Curtiss Wright reviewed the following series or products for the presence of the one hundred and ninety-seven (197) SVHC substances on the EU SVHC Candidate List as of 15 January 2019.

GSX, GSM, GTX, TTX, FTX, FTP, KTX

No SVHCs were found to be present in the above series of listed Curtiss Wright products in excess of 0.1% (1000 ppm) except as noted below. This determination is based on engineering evaluation, testing and supplier declarations and is correct to the best of Curtiss Wright knowledge.

Notes –

1. Brass components contain Lead >0.1% (EC# 231-100-4)
2. O-rings (seals) Bis (2-ethylhexyl)phthalate (DEHP) >0.1% (EC# 204-211-0)

Curtiss Wright REACH Contact Information

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SVHC Candidate List (15 January 2019)

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-ones	239-139-9	15087-24-8
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6
Benzo[k]fluoranthene	205-916-6	207-08-9
Fluoranthene	205-912-4	206-44-0; 93951-69-0
Phenanthrene	201-581-5	85-01-8
Pyrene	204-927-3	129-00-0; 1718-52-1
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride	209-008-0	552-30-7
Benzo[ghi]perylene	205-883-8	191-24-2
Decamethylcyclopentasiloxane	208-764-9	541-02-6
Dicyclohexyl phthalate	201-545-9	84-61-7
Disodium octaborate	234-541-0	12008-41-2
Dodecamethylcyclohexasiloxane	208-762-8	540-97-6
Ethylenediamine	203-468-6	107-15-3

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Lead	231-100-4	7439-92-1
Octamethylcyclotetrasiloxane	209-136-7	556-67-2
Terphenyl, hydrogenated	262-967-7	61788-32-7
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)	-	-
Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2
Cadmium carbonate	208-168-9	513-78-0
Cadmium hydroxide	244-168-5	21041-95-2
Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7
Chrysene	205-923-4	218-01-9, 1719-03-5
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	-	-
Perfluorohexane-1-sulphonic acid and its salts	-	-
4,4'-isopropylidenediphenol	201-245-8	80-05-7
4-heptylphenol, branched and linear	-	-

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Decanoic acid, nonadecafluoro-, sodium salt Ammonium nonadecafluorodecanoate Nonadecafluorodecanoic acid	- - 221-470-5 206-400-3	- 3830-45-3 3108-42-7 335-76-2
p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6
Benzo[def]chrysene (Benzo[a]pyrene), Benzo[def]chrysene(Benzo[a]pyrene)	200-028-5	50-32-8
Nitrobenzene	202-716-0	98-95-3
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl) phenol (UV-327]	223-383-8	3864-99-1
2-(2H-benzotriazol-2-yl)-4-(ter-butyl)-6-(sec-butyl) phenol(UV-350)	253-037-1	36437-37-3
1,3-propanesultone	214-317-9	1120-71-4
Perfluorononan-1-oic-acid- and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	271-094-0 272-013-1	68515-51-5 68648-93-1
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]	-	-
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1
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)	-	-

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Cadmium fluoride	232-222-0	7790-79-6
Cadmium sulphate	233-331-6	10124-36-4; 31119-53-6
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4
Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-
Sodium peroxometaborate	231-556-4	7632-04-4
Cadmium chloride	233-296-7	10108-64-2
Cadmium sulphide	215-147-8	1306-23-6
Trixylyl phosphate	246-677-8	25155-23-1
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)	217-710-3	1937-37-7
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7
Lead di(acetate)	206-104-4	301-04-2
Dihexyl phthalate	201-559-5	84-75-3
Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	209-358-4	573-58-0
Cadmium	231-152-8	7440-43-9
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]	-	-
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Dipentyl phthalate (DPP)	205-017-9	131-18-0
Cadmium oxide	215-146-2	1306-19-0
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]	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8
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]	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8
Henicosfluoroundecanoic acid	218-165-4	2058-94-8
4-Aminoazobenzene	200-453-6	60-09-3
Silicic acid, lead salt	234-363-3	11120-22-2
Lead titanium zirconium oxide	235-727-4	12626-81-2
Lead monoxide (lead oxide)	215-267-0	1317-36-8
o-Toluidine	202-429-0	95-53-4
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5
Lead dinitrate	233-245-9	10099-74-8
Silicic acid (H ₂ Si ₂ O ₅), barium salt (1:1), lead-doped		

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
[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]	272-271-5	68784-75-8
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0
Diethyl sulphate	200-589-6	64-67-5
Dimethyl sulphate	201-058-1	77-78-1
N,N-dimethylformamide	200-679-5	68-12-2
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-
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]	-	-
Furan	203-727-3	110-00-9
Lead oxide sulfate	234-853-7	12036-76-9
Lead titanium trioxide	235-038-9	12060-00-3
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7
1,2-Diethoxyethane	211-076-1	629-14-1
N-methylacetamide	201-182-6	79-16-3
Tetralead trioxide sulphate	235-380-9	12202-17-4
Acetic acid, lead salt, basic	257-175-3	51404-69-4
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9
Tetraethyllead	201-075-4	78-00-2

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
N-pentyl-isopentylphthalate	-	776297-69-9
Pentalead tetraoxide sulphate	235-067-7	12065-90-6
Heptacosafuorotetradecanoic acid	206-803-4	376-06-7
Tricosafuorododecanoic acid	206-203-2	307-55-1
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5
Dioxobis(stearato)trilead	235-702-8	12578-12-0
Pentacosafuorotridecanoic acid	276-745-2	72629-94-8
Methoxyacetic acid	210-894-6	625-45-6
Methyloxirane (Propylene oxide)	200-879-2	75-56-9
Trilead dioxide phosphonate	235-252-2	12141-20-7
o-aminoazotoluene	202-591-2	97-56-3
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7
Diisopentylphthalate	210-088-4	605-50-5
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0
Biphenyl-4-ylamine	202-177-1	92-67-1
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8
Orange lead (lead tetroxide)	215-235-6	1314-41-6
4,4'-oxydianiline and its salts	202-977-0	101-80-4
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7
Lead cyanamidate	244-073-9	20837-86-9
α,α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	229-851-8	6786-83-0

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	423-400-0	59653-74-6
Diboron trioxide	215-125-8	1303-86-2
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2
Formamide	200-842-0	75-12-7
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	219-514-3	2451-62-9
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8
Phenolphthalein	201-004-7	77-09-8
N,N-dimethylacetamide	204-826-4	127-19-5
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9
Lead diazide, Lead azide	236-542-1	13424-46-9
Lead dipicrate	229-335-2	6477-64-1
1,2-dichloroethane	203-458-1	107-06-2

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
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 (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
Calcium arsenate	231-904-5	7778-44-1
Dichromium tris(chromate)	246-356-2	24613-89-6
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0
Pentazinc chromate octahydroxide	256-418-0	49663-84-5
Arsenic acid	231-901-9	7778-39-4
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4
Lead styphnate	239-290-0	15245-44-0
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8
Trilead diarsenate	222-979-5	3687-31-8
Bis(2-methoxyethyl) ether	203-924-4	111-96-6
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
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 (Na ₂ O+K ₂ O+CaO+MgO+BaO) content less or equal to 18% by weight	-	-
Cobalt dichloride	231-589-4	7646-79-9
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6
Strontium chromate	232-142-6	7789-06-2
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4
1-Methyl-2-pyrrolidone	212-828-1	872-50-4
1,2,3-Trichloropropane	202-486-1	96-18-4
2-Ethoxyethyl acetate	203-839-2	111-15-9
Hydrazine	206-114-9	302-01-2, 7803-57-8
Cobalt(II) diacetate	200-755-8	71-48-7
2-Ethoxyethanol	203-804-1	110-80-5
Cobalt(II) sulphate	233-334-2	10124-43-3
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.	231-801-5, 236-881-5	7738-94-5, 13530-68-2
2-Methoxyethanol	203-713-7	109-86-4
Chromium trioxide	215-607-8	1333-82-0

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Cobalt(II) carbonate	208-169-4	513-79-1
Cobalt(II) dinitrate	233-402-1	10141-05-6
Trichloroethylene	201-167-4	79-01-6
Potassium dichromate	231-906-6	7778-50-9
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1
Boric acid	233-139-2, 234-343-4	10043-35-3, 11113-50-1
Ammonium dichromate	232-143-1	7789-09-5
Sodium chromate	231-889-5	7775-11-3
Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3
Potassium chromate	232-140-5	7789-00-6
Acrylamide	201-173-7	79-06-1
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8
2,4-Dinitrotoluene	204-450-0	121-14-2
Anthracene oil	292-602-7	90640-80-5
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2
Anthracene oil, anthracene-low	292-604-8	90640-82-7
Diisobutyl phthalate	201-553-2	84-69-5
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8
Lead chromate	231-846-0	7758-97-6
Anthracene oil, anthracene paste	292-603-2	90640-81-6
Pitch, coal tar, high temp.	266-028-2	65996-93-2
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4

SUBSTANCE NAME	EC NUMBER	CAS NUMBER
Lead hydrogen arsenate	232-064-2	7784-40-9
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7
Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2
Diarsenic trioxide	215-481-4	1327-53-3
Triethyl arsenate	427-700-2	15606-95-8
Diarsenic pentaoxide	215-116-9	1303-28-2
Sodium dichromate	234-190-3	7789-12-0, 10588-01-9
Dibutyl phthalate (DBP)	201-557-4	84-74-2
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8
Anthracene	204-371-1	120-12-7
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	247-148-4 and 221-695-9	25637-99-4, 3194-55-6 (134237-50-6) (134237-51-7) (134237-52-8)