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Creating Precision Ceramic Insulators to Serve the Diverse Needs of Industry

27-August-2018

Du-Co Ceramics Company

155 S. Rebecca Street
PO Box 568
Saxonburg, PA 16056

Subject: Information pursuant for Regulation (EC) No 1907/2006 OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 18 December 2006 "REACH Regulation"

Du-Co Ceramics Company hereby declares, that all materials/components manufactured do not contain any of the SVHC's as per the European Chemicals Agency's "Candidate List of Substances of Very High Concern for Authorization".

As of August 27, 2018, the latest additions and revision to the above mentioned list were made on **June 27, 2018** according to the following web site: <https://echa.europa.eu/web/guest/candidate-list-table>. The list includes 191 substances and is attached with inclusion dates for reference.

Sincerely,

Michael Crytzer
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Candidate List of Substances of Very High Concern for Authorization

For more detailed information, please see ECHA's Candidate List Web page at <http://echa.europa.eu/web/guest/candidate-list-table>

Substance Name	EC Number	CAS Number	Date of inclusion
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride trimellitic anhydride; TMA	209-008-0	552-30-7	6/27/2018
Benzo[ghi]perylene	205-883-8	191-24-2	6/27/2018
Decamethylcyclopentasiloxane	208-764-9	541-02-6	6/27/2018
Dicyclohexyl phthalate	201-545-9	84-61-7	6/27/2018
Disodium octaborate	234-541-0	12008-41-2	6/27/2018
Dodecamethylcyclohexasiloxane	208-762-8	540-97-6	6/27/2018
Ethylenediamine	203-468-6	107-15-3	6/27/2018
Lead	231-100-4	7439-92-1	6/27/2018
Octamethylcyclotetrasiloxane	209-136-7	556-67-2	6/27/2018
Terphenyl, hydrogenated	262-967-7	61788-32-7	6/27/2018
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"™)	---	---	1/15/2018
Benz[a]anthracene	200-280-6	56-55-3, 1718-53-2	1/15/2018
Cadmium carbonate	208-168-9	513-78-0	1/15/2018
Cadmium hydroxide	244-168-5	21041-95-2	1/15/2018
Cadmium nitrate	233-710-6	10022-68-1, 10325-94-7	1/15/2018
Chrysene	205-923-4	218-01-9, 1719-03-5	1/15/2018
Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear	---	---	1/15/2018

(RP-HP)			
Perfluorohexane-1-sulphonic acid and its salts	---	---	07/07/2017
4,4'-isopropylidenediphenol (bisphenol A)	201-245-8	80-05-7	1/12/2017
nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	206-400-3	335-76-2	1/12/2017
4-heptylphenol, branched and linear (4-HPbl)	---	---	1/12/2017
p-(1,1-dimethylpropyl)phenol (PTAP)	201-280-9	80-46-6	1/12/2017
<u>Benzo[def]chrysene (Benzo[a]pyrene),</u> <u>Benzo[def]chrysene(Benzo[a]pyrene</u>	200-028-5	50-32-8	20/06/2016
1,3-propanesultone	214-317-9	1120-71-4	12/17/2015
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	12/17/2015
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	12/17/2015
Nitrobenzene	202-716-0	202-716-0	12/17/2015
Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	12/17/2015
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	2015/06/15
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]			2015/06/15
Cadmium fluoride	232-222-0	7790-79-6	2014/12/17
Cadmium sulphate	233-331-6	10124-36-4; 31119-53-6	2014/12/17

2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	2014/12/17
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	2014/12/17
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	2014/12/17
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)	-	-	2014/12/17
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	2014/06/16
Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0		2014/06/16
Sodium peroxometaborate	231-556-4	7362-04-4	2014/06/16
Cadmium chloride	233-296-7	10108-64-2	2014/06/16
Cadmium sulphide	215-147-8	1306-23-6	2013/12/16
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	2013/12/16
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	2013/12/16
Dihexyl phthalate	201-559-5	84-75-3	2013/12/16
Imidazolidine-2-thione (2-imidazoline-2-thiol)	202-506-9	96-45-7	2013/12/16
Lead di(acetate)	206-104-4	301-04-2	2013/12/16
Trixylyl phosphate	246-677-8	25155-23-1	2013/12/16
Cadmium	231-152-8	7440-43-9	2013/06/20
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	2013/06/20
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	2013/06/20

Dipentyl phthalate (DPP)	205-017-9	131-18-0	2013/06/20
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]			2013/06/20
Cadmium oxide	215-146-2	1306-19-0	2013/06/20
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	2012/12/19
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	2012/12/19
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	2012/12/19
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	2012/12/19
Henicosafuoroundecanoic acid	218-165-4	2058-94-8	2012/12/19
4-Aminoazobenzene	200-453-6	60-09-3	2012/12/19
Silicic acid, lead salt	234-363-3	11120-22-2	2012/12/19
Lead titanium zirconium oxide	235-727-4	12626-81-2	2012/12/19
Lead monoxide (lead oxide)	215-267-0	1317-36-8	2012/12/19
o-Toluidine	202-429-0	95-53-4	2012/12/19
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	2012/12/19
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	2012/12/19
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	2012/12/19
Lead dinitrate	233-245-9	10099-74-8	2012/12/19
Silicic acid (H ₂ SiO 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]	272-271-5	68784-75-8	2012/12/19
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	2012/12/19

4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	2012/12/19
Diethyl sulphate	200-589-6	64-67-5	2012/12/19
Dimethyl sulphate	201-058-1	77-78-1	2012/12/19
N,N-dimethylformamide	200-679-5	68-12-2	2012/12/19
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	-	-	2012/12/19
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]	-	-	2012/12/19
Furan	203-727-3	110-00-9	2012/12/19
Lead oxide sulfate	234-853-7	12036-76-9	2012/12/19
Lead titanium trioxide	235-038-9	12060-00-3	2012/12/19
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	2012/12/19
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	2012/12/19
1,2-Diethoxyethane	211-076-1	629-14-1	2012/12/19
N-methylacetamide	201-182-6	79-16-3	2012/12/19
Tetralead trioxide sulphate	235-380-9	12202-17-4	2012/12/19
Acetic acid, lead salt, basic	257-175-3	51404-69-4	2012/12/19
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	2012/12/19
Tetraethyllead	201-075-4	78-00-2	2012/12/19
N-pentyl-isopentylphthalate	-	776297-69-9	2012/12/19
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	2012/12/19
Heptacosafuorotetradecanoic acid	206-803-4	376-06-7	2012/12/19
Tricosafuorododecanoic acid	206-203-2	307-55-1	2012/12/19
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	2012/12/19
Dioxobis(stearato)trilead	235-702-8	12578-12-0	2012/12/19
Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	2012/12/19
Methoxyacetic acid	210-894-6	625-45-6	2012/12/19
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	2012/12/19
Trilead dioxide phosphonate	235-252-2	12141-20-7	2012/12/19
o-aminoazotoluene	202-591-2	97-56-3	2012/12/19

4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	2012/12/19
Diisopentylphthalate	210-088-4	605-50-5	2012/12/19
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	2012/12/19
Biphenyl-4-ylamine	202-177-1	92-67-1	2012/12/19
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	2012/12/19
Orange lead (lead tetroxide)	215-235-6	1314-41-6	2012/12/19
4,4'-oxydianiline and its salts	202-977-0	101-80-4	2012/12/19
Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	2012/12/19
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	2012/12/19
Lead cyanamidate	244-073-9	20837-86-9	2012/12/19
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	2012/06/18
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	2012/06/18
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	2012/06/18
Diboron trioxide	215-125-8	1303-86-2	2012/06/18
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	2012/06/18
Formamide	200-842-0	75-12-7	2012/06/18
4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	209-218-2	561-41-1	2012/06/18
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	2012/06/18
[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9	2012/06/18
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	2012/06/18
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5	2012/06/18
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione	219-514-3	2451-62-9	2012/06/18

(TGIC)			
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	2012/06/18
Phenolphthalein	201-004-7	77-09-8	2011/12/19
N,N-dimethylacetamide	204-826-4	127-19-5	2011/12/19
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	2011/12/19
Lead diazide, Lead azide	236-542-1	13424-46-9	2011/12/19
Lead dipicrate	229-335-2	6477-64-1	2011/12/19
1,2-dichloroethane	203-458-1	107-06-2	2011/12/19
Calcium arsenate	231-904-5	7778-44-1	2011/12/19
Dichromium tris(chromate)	246-356-2	24613-89-6	2011/12/19
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	2011/12/19
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	2011/12/19
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	-	-	2011/12/19
Arsenic acid	231-901-9	7778-39-4	2011/12/19
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	2011/12/19
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	2011/12/19
Lead styphnate	239-290-0	15245-44-0	2011/12/19
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	2011/12/19
Trilead diarsenate	222-979-5	3687-31-8	2011/12/19
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	-	-	2011/12/19

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			
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	2011/12/19
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	2011/12/19
Cobalt dichloride	231-589-4	7646-79-9	2011/06/20 - 2008/10/28
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	276-158-1	71888-89-6	2011/06/20
Strontium chromate	232-142-6	7789-06-2	2011/06/20
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	271-084-6	68515-42-4	2011/06/20
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	2011/06/20
1,2,3-Trichloropropane	202-486-1	96-18-4	2011/06/20
2-Ethoxyethyl acetate	203-839-2	111-15-9	2011/06/20
Hydrazine	206-114-9	302-01-2, 7803-57-8	2011/06/20
Cobalt(II) diacetate	200-755-8	71-48-7	2010/12/15
2-Ethoxyethanol	203-804-1	110-80-5	2010/12/15
Cobalt(II) sulphate	233-334-2	10124-43-3	2010/12/15
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	2010/12/15
2-Methoxyethanol	203-713-7	109-86-4	2010/12/15
Chromium trioxide	215-607-8	1333-82-0	2010/12/15
Cobalt(II) carbonate	208-169-4	513-79-1	2010/12/15
Cobalt(II) dinitrate	233-402-1	10141-05-6	2010/12/15
Trichloroethylene	201-167-4	79-01-6	2010/06/18
Potassium dichromate	231-906-6	7778-50-9	2010/06/18
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	2010/06/18
Boric acid	233-139-2, 234-343-4	10043-35-3, 11113-50-1	2010/06/18
Ammonium dichromate	232-143-1	7789-09-5	2010/06/18

Sodium chromate	231-889-5	7775-11-3	2010/06/18
Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3	2010/06/18
Potassium chromate	232-140-5	7789-00-6	2010/06/18
Acrylamide	201-173-7	79-06-1	2010/03/30
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	2010/01/13
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	2010/01/13
2,4-Dinitrotoluene	204-450-0	121-14-2	2010/01/13
Anthracene oil	292-602-7	90640-80-5	2010/01/13
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	2010/01/13
Anthracene oil, anthracene-low	292-604-8	90640-82-7	2010/01/13
Diisobutyl phthalate	201-553-2	84-69-5	2010/01/13
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	2010/01/13
Lead chromate	231-846-0	7758-97-6	2010/01/13
Anthracene oil, anthracene paste	292-603-2	90640-81-6	2010/01/13
Pitch, coal tar, high temp.	266-028-2	65996-93-2	2010/01/13
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	2010/01/13
Lead hydrogen arsenate	232-064-2	7784-40-9	2008/10/28
Benzyl butyl phthalate (BBP)	201-622-7	85-68-7	2008/10/28
Bis (2-ethylhexyl)phthalate (DEHP)	204-211-0	117-81-7	2008/10/28
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	2008/10/28
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	2008/10/28
Diarsenic trioxide	215-481-4	1327-53-3	2008/10/28
Triethyl arsenate	427-700-2	15606-95-8	2008/10/28
Diarsenic pentoxide	215-116-9	1303-28-2	2008/10/28
Sodium dichromate	234-190-3	7789-12-0, 10588-01-9	2008/10/28
Dibutyl phthalate (DBP)	201-557-4	84-74-2	2008/10/28
4,4'- Diaminodiphenylmethane (MDA)	202-974-4	101-77-9	2008/10/28
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	2008/10/28
Anthracene	204-371-1	120-12-7	2008/10/28
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-	247-148-4 and 221-	25637-99-4, 3194-55-6	2008/10/28

hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	695-9	(134237-50-6) (134237-51-7) (134237-52-8)	
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