



# FORMOSA CHEMICALS & FIBRE CORP.

201, Tung Hwa N. Road Taipei, Taiwan

Fax: +886-2-25471382 Tel: +886-2-27122211

## Certificate of Product Safety

Dear Sirs :

We hereby certify that the following resin produced by Formosa Chemicals & Fibre Corporation listed below:

TAIRILAC ABS AE10EP, AG1000, AG100H, AG12A0, AG12A1, AG12A1-H, AG12A3, AG12AJ, AG15A0, AG15A1, AG15A1-H, AG15A2, AG15A3, AG15A5, AG15A6, AG15AB, AG15AJ, AG15AM, AG15E0, AG15E1, AG15E1-H, AG15E3, AG16A1, AF3500, AF3535, AF3537, AF3538, AF3538H, AF3530, AF3560, AF3590, AF3600, AX4000, AX4100, AX4300, AG20GF, AG22AT, AG23AT, AG23AT-M, AG26AT, AG27AT, AT5500, AT5800, AG10NP, AG10NP-N, AG10AP, AE8000, AE8000-H, AE8200, AH2003, ANC100, ANC120, ANC160, ANC180, ANC180-B, AC400M, AK1300, AE8700

TAIRILAC ASA WG1700, WG1800, WF3300, WF3301, WE8100, WE810P, WE8500, WE8300, WE830M

TAIRISAN SAN NF2100, NF2200, NF2200AE, NX3200, NX3400,

TAIRIREX PS GP5000, GP5250, GP5250/N, GP525N, GP5350, GP535A, GP535N, GP535N-1M, GP5500, GP5500-1M, GP5500-1Y, GP550N, GP550N-1Y, MP6500, HP8250, HP8258, HP825F, HP825H, HP9450, GP535P, GP535H, GP560N, HP825G, HP825T, HP825S, HP825N

TAIRILOY PC/ABS AC2000, AC2100, AC2108, AC2190, AC2300, AC2400, AC2500, AC2500-AF, AC2501-AF, AC2508, AC25BM, AC3100, AC3100AF, AC3100AJ, AC3108, AC3208, AC3250, AC3300

TAIRILITE PC AC111(X), AC2120, AC2820, AC3600, AC3600-AF, AC3610, AC3610-AF, AC3630, AC3630-AF, AC3700, AC3710, AC3800, AC3900, AC285(X), AC291(X), AC293(X), AC294(X), AC295(X), AC383(X), AC385(X), AC386(X), AC387(X), AC388(X), AC389(X), AC3910-AF, AC6000, AC914(X), AC983(X)

Conforms to the requirement that no chemicals as following are added (<1,000 ppm).

The SVHC List of 1st (released by ECHA on 28 Oct. 2008)

REACH SVHC	CAS Number
1 Anthracene	120-12-7
2 4,4'-Diaminodiphenylmethane	101-77-9
3 Dibutyl phthalate	84-74-2
4 Cobalt dichloride	7646-79-9
5 Diarsenic pentaoxide	1303-28-2
6 Diarsenic trioxide	1327-53-3
7 Sodium dichromate	7789-12-0 10588-01-9
8 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2

REACH SVHC	CAS Number
9 Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
10 Hexabromocyclododecane (HBCDD)	25637-99-4 3194-55-6 134237-51-7 134237-50-6 134237-52-8
11 Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8
12 Bis(tributyltin)oxide	56-35-9
13 Lead hydrogen arsenate	7784-40-9
14 Triethyl arsenate	15606-95-8
15 Benzyl butyl phthalate	85-68-7



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The SVHC List of 2nd (released by ECHA on 13 Jan. 2010)

REACH SVHC	CAS Number
1 Anthracene oil	90640-80-5
2 Anthracene oil, anthracene paste, distn. lights	91995-17-4
3 Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
4 Anthracene oil, anthracene-low	90640-82-7
5 Anthracene oil, anthracene paste	90640-81-6
6 Coal tar pitch, high temperature	65996-93-2
7 Acrylamide	79-06-1

REACH SVHC	CAS Number
8 2,4-Dinitrotoluene	121-14-2
9 Diisobutyl phthalate	84-69-5
10 Lead chromate	7758-97-6
11 Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8
12 Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
13 Tris(2-chloroethyl)phosphate	115-96-8

The SVHC List of 3rd (released by ECHA on 18 Jun.2010)

REACH SVHC	CAS Number
1 Trichloroethylene	79-01-6
2 Boric acid	10043-35-3; 11113-50-14
3 Disodium tetraborate, anhydrous	1330-43-4; 12179-04-3; 1303-96-4
4 Tetraboron disodium heptaoxide, hydrate	12267-73-1

REACH SVHC	CAS Number
5 Sodium chromate	7775-11-3
6 Potassium chromate	7789-00-6
7 Ammonium dichromate	7789-09-5
8 Potassium dichromate	7778-50-9

The SVHC List of 4th (released by ECHA on 15 Dec.2010)

REACH SVHC	CAS Number
1 Cobalt sulfate	10124-43-3
2 Cobalt dinitrate	10141-05-6
3 Cobalt carbonate	513-79-1
4 Cobalt diacetate	71-48-7

REACH SVHC	CAS Number
5 2-Methoxyethanol	109-86-4
6 2-Ethoxyethanol	110-80-5
7 Chromium trioxide	1333-82-0
8 Chromic acid; Dichromic acid	7738-94-5; 13530-68-2



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The SVHC List of 5th (released by ECHA on 20 Jun.2011)

REACH SVHC	CAS Number
1 2-ethoxyethyl acetate	111-15-9
2 strontium chromate	7789-06-2
3 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters	68515-42-4
4 Hydrazine	7803-57-8; 302-01-2

REACH SVHC	CAS Number
5 1-methyl-2-pyrrolidone	872-50-4
6 1,2,3-trichloropropane	96-18-4
7 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6

The SVHC List of 6th (released by ECHA on 19 Dec.2011)

REACH SVHC	CAS Number
1 Dichromium tris(chromate)	24613-89-6
2 Potassium hydroxyoctaoxodizincatedi-chromate	11103-86-9
3 Pentazine chromate octahydroxide	49663-84-5

REACH SVHC	CAS Number
4 Bis(2-methoxyethyl) ether	111-96-6
5 Arsenic acid	7778-39-4
6 Calcium arsenate	7778-44-1

7 Aluminosilicate Refractory Ceramic Fibres (RCF)*1	-
8 Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)*2	-
9 Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4
10 Bis(2-methoxyethyl) phthalate	117-82-8
11 2-Methoxyaniline; o-Anisidine	90-04-0
12 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9
13 1,2-Dichloroethane	107-06-2

14 Trilead diarsenate	3687-31-8
15 N,N-dimethylacetamide (DMAC)	127-19-5
16 2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4
17 Phenolphthalein	77-09-8
18 Lead azide Lead diazide	13424-46-9
19 Lead styphnate	15245-44-0
20 Lead dipicrate	6477-64-1



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The SVHC List of 7th (released by ECHA on 18 June. 2012)

REACH SVHC		CAS Number	REACH SVHC		CAS Number
1	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	8	Formamide	75-12-7
2	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	9	Lead(II) bis(methanesulfonate)	17570-76-2
3	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	10	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
4	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	11	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9
5	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	12	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
6	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylenecyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)	2580-56-5	13	$\beta$ -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
7	Diboron trioxide	1303-86-2			

The Candidate SVHC List of 8th (released by ECHA on 19 Dec. 2012)

REACH SVHC		CAS Number	REACH SVHC		CAS Number
1	Bis(pentabromophenyl)ether(De caBDE)	1163-19-5	7	Acetic acid, lead salt, basic	51404-69-4
2	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	--	8	Dimethyl sulphate	77-78-1
3	Diazene-1,2-dicarboxamide(C, C'-azodi(formamide))	123-77-3	9	Furan	110-00-9
4	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated-covering well-defined substances and UVCB substances, polymers and homologues	--	10	Pyrochlore, antimony lead yellow	8012-00-8
5	Henicosfluoroundecanoic acid	2058-94-8	11	Tetraethyllead	78-00-2
6	Pentacosfluorotridecanoic acid	72629-94-8	12	[Phthalato(2-)]dioxotrilead	69011-06-9



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13	Cyclohexane-1,2-dicarboxylic anhydride	85-42-7	32	Diethyl sulphate	64-67-5
14	Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9,	33	Lead cyanamidate	20837-86-9
15	Heptacosafuorotetradecanoic acid	376-06-7	34	Silicic acid, barium salt, lead-doped	68784-75-8
16	Diisopentylphthalate	605-50-5	35	Trilead dioxide phosphonate	12141-20-7
17	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	36	o-Toluidine; 2-Aminotoluene	95-53-4
18	N-pentyl-isopentylphthalate	776297-69-9	37	o-aminoazotoluene	97-56-3
19	Methoxy acetic acid	625-45-6	38	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3
20	Tricosafuorododecanoic acid	307-55-1	39	6-methoxy-m-toluidine(p-cresidine)	120-71-8
21	1,2-Diethoxyethane	629-14-1	40	Dibutyltin dichloride(DBT)	683-18-1
22	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	41	Lead Titanium Zirconium Oxide	12626-81-2
23	4-methyl-m-phenylenediamine(2,4-toluenediamine)	95-80-7	42	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
24	N-methylacetamide	79-16-3	43	1-bromopropane	106-94-5
25	Pentaleadtetraoxidesulphate	12065-90-6	44	Basic lead carbonate(trileadbis(carbonate)dihydroxide)	1319-46-6
26	Biphenyl-4-ylamine	92-67-1	45	Fatty acids, C16-18, lead salts	91031-62-8
27	Dinoseb	88-85-7	46	Lead tetroxide(orange lead)	1314-41-6
28	Dioxobis(stearato)trilead	12578-12-0	47	Sulfurous acid, lead salt, dibasic	62229-08-7
29	Lead dinitrate	10099-74-8	48	4,4'-oxydianiline and its salts	101-80-4
30	Tetralead trioxide sulphate	12202-17-4	49	Lead oxide sulphate	12036-76-9
31	Lead oxide(lead monoxide)	1317-36-8	50	Lead bis(tetrafluoroborate)	13814-96-6



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51	Lead titanium trioxide	12060-00-3
52	4,4' -methylenedi-o-toluidine	838-88-0

53	Silicic acid, lead salt	11120-22-2
54	N,N-dimethylformamide; dimethyl formamide	68-12-2

The SVHC List of 9th (released by ECHA on 20 June 2013)

REACH SVHC	CAS Number
1 Cadmium	7440-43-9
2 Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
3 Pentadecafluorooctanoic acid (PFOA)	335-67-1

REACH SVHC	CAS Number
4 Dipentyl phthalate (DPP)	131-18-0
5 4-Nonylphenol, branched and linear, ethoxylated	--
6 Cadmium oxide	1306-19-0

The SVHC List of 10th (released by ECHA on 16 Dec. 2013)

REACH SVHC	CAS Number
1 Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0
2 Dihexyl phthalate	84-75-3
3 Cadmium sulphide	1306-23-6

REACH SVHC	CAS Number
4 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
5 Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7
6 Lead di(acetate)	301-04-2
7 Trixylyl phosphate	25155-23-1

The SVHC List of 11th (released by ECHA on 16 June 2014)

REACH SVHC	CAS Number
1 Cadmium chloride	10108-64-2
2 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4

REACH SVHC	CAS Number
3 Sodium peroxometaborate	7632-04-4
4 Sodium perborate; perboric acid, sodium salt	--



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The SVHC List of 12th (released by ECHA on 17 Dec. 2014)

REACH SVHC		CAS Number	REACH SVHC		CAS Number
1	Cadmium fluoride	7790-79-6	4	Cadmium sulphate	10124-36-4; 31119-53-6
2	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	5	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
3	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	6	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)	--

The SVHC List of 13th (released by ECHA on 15 June 2015)

REACH SVHC		CAS Number	REACH SVHC		CAS Number
1	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	2	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]	--

The SVHC List of 14th (released by ECHA on 17 Dec. 2015)

REACH SVHC		CAS Number	REACH SVHC		CAS Number
1	1,3-propanesultone	1120-71-4	4	Nitrobenzene	98-95-3
2	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	5	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3
3	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4			

The SVHC List of 15th (released by ECHA on 20 June 2016)

REACH SVHC		CAS Number
1	Benzo[def]chrysene	50-32-8



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The SVHC List of 16th (released by ECHA on 12 Jan. 2017)

REACH SVHC			REACH SVHC		
		CAS Number			CAS Number
1	4,4'-isopropylidenediphenol	80-05-7	3	4-Heptylphenol, branched and linear	--
2	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts Nonadecafluorodecanoic acid Ammonium nonadecafluorodecanoate Decanoic acid, nonadecafluoro-, sodium salt	335-76-2 3108-42-7 3830-45-3	4	p-(1,1-dimethylpropyl)phenol	80-46-6

The SVHC List of 17th (released by ECHA on 7 July 2017)

REACH SVHC		CAS Number
1	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	355-46-4

The SVHC List of 18th (released by ECHA on 15 Jan. 2018)

REACH SVHC			REACH SVHC		
		CAS Number			CAS Number
1	Benz[a]anthracene	56-55-3, 1718-53-2	5	Cadmium carbonate	513-78-0
2	Cadmium hydroxide	21041-95-2	6	Cadmium nitrate	10022-68-1, 10325-94-7
3	Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus" <sup>TM</sup> )	--	7	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)	--
4	Chrysene	218-01-9, 1719-03-5			

The SVHC List of 19th (released by ECHA on 27 June 2018)

REACH SVHC			REACH SVHC		
		CAS Number			CAS Number
1	Octamethylcyclotetrasiloxane (D4)	556-67-2	6	Benzo[ghi]perylene	191-24-2
2	Decamethylcyclopentasiloxane (D5)	541-02-6	7	Terphenyl hydrogenated	61788-32-7
3	Dodecamethylcyclohexasiloxane (D6)	540-97-6	8	Ethylenediamine (EDA)	107-15-3
4	Lead	7439-92-1	9	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
5	Disodium octaborate	12008-41-2	10	Dicyclohexyl phthalate (DCHP)	84-61-7





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The SVHC List of 20 th (released by ECHA on 15 Jan. 2019)

REACH SVHC	CAS Number
1 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one	15087-24-8
2 2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6
3 Benzo[k]fluoranthene	207-08-9

REACH SVHC	CAS Number
4 Pyrene	129-00-0; 1718-52-1
5 Fluoranthene	206-44-0; 93951-69-0
6 Phenanthrene	85-01-8

The SVHC List of 21 th (released by ECHA on 16 Jul. 2019)

REACH SVHC	CAS Number
1 2-methoxyethyl acetate	110-49-6
2 Tris (4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	

REACH SVHC	CAS Number
3 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	
4 4-tert-butylphenol	98-54-4

Sincerely Yours,

*C C Chen*

C. C. Chen

Department Manager

Plastics Division

