

January 27th, 2021

Dear customers ;

Investigation result of using 211 substances of very high concern(SVHC)
(ECHA 19/1/2021)

We would like to express our deep appreciation for your use of our resin products. As requested in your questionnaire, the investigation result of using 211 substances of very high concern (SVHC) is shown below.

1.Product names to be investigated

- (1)TORAY NYLON resin "AMILAN" all grades
- (2)TORAY NYLON Particulate all grades
- (3)TORAY PBT resin "TORAYCON" all grades
- (4)TORAY PPS resin "TORELINA" all grades
- (5)TORAY LCP resin "SIVERAS" all grades
- (6)TORAY CFRTP resin "TORAYCA" all grades

2. Candidate List of Substances of Very High Concern for Authorisation (ECHA 19/1/2021)

Please refer to the attached list.

3.Results

We intentionally do not use the substances listed above.

Should you need more information, please feel free to contact us.

Yours faithfully,



Hajime Takamura
General Manager
Plastics Technical Department
Toray Industries, Inc.

Candidate List of Substances of Very High Concern for Authorisation (ECHA 19/1/2021)

No	Substance name	CAS number	EC number
1	Anthracene	120-12-7	204-371-1
2	4,4'-Diaminodiphenylmethane	101-77-9	202-974-4
3	Dibutyl phthalate	84-74-2	201-557-4
4	Cobalt dichloride	7646-79-9	231-589-4
5	Diarsenic pentaoxide	1303-28-2	215-116-9
6	Diarsenic trioxide	1327-53-3	215-481-4
7	Sodium dichromate	10588-01-9, 7789-12-0	234-190-3
8	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2	201-329-4
9	Bis (2-ethyl(hexyl)phthalate) (DEHP)	117-81-7	204-211-0
10	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified (α -HBCDD, β -HBCDD, γ -HBCDD)	25637-99-4, 3194-55-6 (134237-50-6, 134237-51-7, 134237-52-8)	247-148-4 221-695-9
11	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	287-476-5
12	Bis (tributyltin)oxide	56-35-9	200-268-0
13	Lead hydrogen arsenate	7784-40-9	232-064-2
14	Benzyl butyl phthalate	85-68-7	201-622-7
15	Triethyl arsenate	15606-95-8	427-700-2
16	2,4-Dinitrotoluene	121-14-2	204-450-0
17	Anthracene oil	90640-80-5	292-602-7
18	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	295-278-5
19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	295-275-9
20	Anthracene oil, anthracene-low	90640-82-7	292-604-8
21	Anthracene oil, anthracene paste	90640-81-6	292-603-2
22	Diisobutyl phthalate	84-69-5	201-553-2
23	Lead chromate	7758-97-6	231-846-0
24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	235-759-9
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7
26	Acrylamide	79-06-1	201-173-7
27	Tris(2-chloroethyl)phosphate	115-96-8	204-118-5
28	Coal tar pitch, high temperature	65996-93-2	266-028-2
29	Trichloroethylene	79-01-6	201-167-4
30	Boric acid	10043-35-3, 11113-50-1	233-139-2, 234-343-4
31	Disodium tetraborate, anhydrous (Contains: pentahydrate, decahydrate)	1330-43-4, 12179-04-3, 1303-96-4	215-540-4
32	Tetraboron disodium heptaoxide, hydrate	12267-73-1	235-541-3
33	Sodium chromate	7775-11-3	231-889-5
34	Potassium chromate	7789-00-6	232-140-5
35	Ammonium dichromate	7789-09-5	232-143-1
36	Potassium dichromate	7778-50-9	231-906-6
37	Cobalt(II) sulphate	10124-43-3	233-334-2
38	Cobalt(II) dinitrate	10141-05-6	233-402-1
39	Cobalt(II) carbonate	513-79-1	208-169-4
40	Cobalt(II) diacetate	71-48-7	200-755-8
41	2-Methoxyethanol	109-86-4	203-713-7
42	2-Ethoxyethanol	110-80-5	203-804-1
43	Chromium trioxide	1333-82-0	215-607-8
44	Acids generated from chromium trioxide and their oligomers: Chromic acid Dichromic acid Oligomers of chromic acid and dichromic acid	7738-94-5 13530-68-2 -	231-801-5 236-881-5 -
45	2-ethoxyethyl acetate	111-15-9	203-839-2
46	strontium chromate	7789-06-2	232-142-6
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNP) (IUPAC名: Di-C7-11-(linear and branched)-alkyl phthalate)	68515-42-4	271-084-6
48	Hydrazine	7803-57-8, 302-01-2	206-114-9
49	1-methyl-2-pyrrolidone	872-50-4	212-828-1
50	1,2,3-trichloropropane	96-18-4	202-486-1
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP) (IUPAC名: C6-8-(branched)-Alkyl benzene-1,2-dicarboxylate)	71888-89-6	276-158-1
52	Dichromium tris(chromate)	24613-89-6	246-356-2
53	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	234-329-8
54	Pentazinc chromate octahydroxide	49663-84-5	256-418-0
55	Aluminosilicate Refractory Ceramic Fibres (RCF) (*1)	-	-
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*2)	-	-
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4	500-036-1
58	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6
59	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9	205-426-2

Candidate List of Substances of Very High Concern for Authorisation (ECHA 19/1/2021)

No	Substance name	CAS number	EC number
61	1,2-Dichloroethane	107-06-2	203-458-1
62	Bis(2-methoxyethyl) ether	111-96-6	203-924-4
63	Arsenic acid	7778-39-4	231-901-9
64	Calcium arsenate	7778-44-1	231-904-5
65	Trilead diarsenate	3687-31-8	222-979-5
66	N,N-dimethylacetamide (DMAC)	127-19-5	204-826-4
67	2,2'-dichloro-4,4'-methylenedianiline	101-14-4	202-918-9
68	Phenolphthalein	77-09-8	201-004-7
69	Lead diazide and lead azide	13424-46-9	236-542-1
70	Lead styphnate	15245-44-0	239-290-0
71	Lead dipicrate	6477-64-1	229-335-2
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	203-977-3
73	1,2-dimethoxyethane (ethylene glycol dimethyl ether (EGDME))	110-71-4	203-794-9
74	Diboron trioxide	1303-86-2	215-125-8
75	Formamide	75-12-7	200-842-0
76	Lead(II) bis(methanesulfonate)	17570-76-2	401-750-5
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9	219-514-3
78	β -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	423-400-0
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	202-027-5
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6
82	[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	219-943-6
83	α , α -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0	229-851-8
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1	209-218-2
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	214-604-9
86	Pentacosafuorotridecanoic acid	72629-94-8	276-745-2
87	Tricosafuorododecanoic acid	307-55-1	206-203-2
88	Henicosafuoroundecanoic acid	2058-94-8	218-165-4
89	Heptacosafuorotetradecanoic acid	376-06-7	206-803-4
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	-	-
91	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	-	-
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8
93	Hexahydro-2-benzofuran-1,3-dione (HHPA), cis-cyclohexane-1,2-dicarboxylic anhydride, trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7 13149-00-3 14166-21-3	201-604-9 236-086-3 238-009-9
94	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	247-094-1 243-072-0 256-356-4 260-566-1
95	Methoxy acetic acid	625-45-6	210-894-6
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2
97	Diisopentylphthalate	605-50-5	210-088-4
98	N-pentyl-isopentylphthalate	776297-69-9	-
99	1,2-Diethoxyethane	629-14-1	211-076-1
100	N,N-dimethylformamide; dimethyl formamide (DMF)	68-12-2	200-679-5
101	Dibutyltin dichloride (DBT)	683-18-1	211-670-0
102	Acetic acid, lead salt, basic	51404-69-4	257-175-3
103	Trilead bis(carbonate)dihydroxide (basic lead carbonate)	1319-46-6	215-290-6
104	Lead oxide sulfate	12036-76-9	234-853-7
105	[Phthalato(2-)]dioxotrilead	69011-06-9	273-688-5
106	Dioxobis(stearato)trilead	12578-12-0	235-702-8
107	Fatty acids, C16-18, lead salts	91031-62-8	292-966-7
108	Lead bis(tetrafluoroborate)	13814-96-5	237-486-0
109	Lead cyanamidate	20837-86-9	244-073-9
110	Lead dinitrate	10099-74-8	233-245-9
111	Lead oxide (lead monoxide)	1317-36-8	215-267-0
112	Lead tetroxide (orange lead)	1314-41-6	215-235-6
113	Lead titanium trioxide	12060-00-3	235-038-9
114	Lead Titanium Zirconium Oxide	12626-81-2	235-727-4
115	Pyrochlore, antimony lead yellow	8012-00-8	232-382-1
116	Pentalead tetraoxide sulphate	12065-90-6	235-067-7

Candidate List of Substances of Very High Concern for Authorisation (ECHA 19/1/2021)

No	Substance name	CAS number	EC number
117	Silicic acid, barium salt, lead-doped	68784-75-8	272-271-5
118	Silicic acid, lead salt	11120-22-2	234-363-3
119	Sulfurous acid, lead salt, dibasic	62229-08-7	263-467-1
120	Tetraethyllead	78-00-2	201-075-4
121	Tetralead trioxide sulphate	12202-17-4	235-380-9
122	Trilead dioxide phosphonate	12141-20-7	235-252-2
123	Furan	110-00-9	203-727-3
124	Propylene oxide (1,2-epoxypropane; methyloxirane)	75-56-9	200-879-2
125	Diethyl sulphate	64-67-5	200-589-6
126	Dimethyl sulphate	77-78-1	201-058-1
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7
128	Dinoseb	88-85-7	201-861-7
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0
131	4-Aminoazobenzene (4-Phenylazoaniline)	60-09-3	200-453-6
132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1
134	Biphenyl-4-ylamine	92-67-1	202-177-1
135	o-aminoazotoluene	97-56-3	202-591-2
136	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0
137	N-methylacetamide	79-16-3	201-182-6
138	1-bromopropane	106-94-5	203-445-0
139	Cadmium	7440-43-9	231-152-8
140	Cadmium oxide	1306-19-0	215-146-2
141	Ammoniumpentadecafluorooctanoate (APFO)	3825-26-1	223-320-4
142	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9
143	Dipentyl phthalate (DPP)	131-18-0	205-017-9
144	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]	-	-
145	Cadmium sulphide	1306-23-6	215-147-8
146	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
147	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
148	Dihexyl phthalate	84-75-3	201-559-5
149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7	202-506-9
150	Lead di(acetate)	301-04-2	206-104-4
151	Trixylyl phosphate	25155-23-1	246-677-8
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5
153	Cadmium chloride	10108-64-2	233-296-7
154	Sodium perborate; perboric acid, sodium salt	15120-21-5 11138-47-9	239-172-9 234-390-0
155	Sodium peroxometaborate	7632-04-4	231-556-4
156	Cadmium fluoride	7790-79-6	232-222-0
157	Cadmium sulphate	10124-36-4, 31119-53-6	233-331-6
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	223-346-6
159	2-(2H-benzotriazol-2-yl)-4,6-di-tert-pentylphenol (UV-328)	25973-55-1	247-384-8
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	239-622-4
161	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)	-	-
162	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	68515-51-5, 68648-93-1	271-094-0 272-013-1
163	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 isomers of [1] and [2] or any combination thereof]	-	-
164	1,3-propanesultone	1120-71-4	214-317-9
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1
167	Nitrobenzene	98-95-3	202-716-0
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononanoic acid and its sodium and ammonium salts)	375-95-1, 21049-39-8, 4149-60-4	206-801-3
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	200-028-5
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	201-245-8

Candidate List of Substances of Very High Concern for Authorisation (ECHA 19/1/2021)

No	Substance name	CAS number	EC number
171	4-Heptylphenol, branched and linear [substances with a linear and/or branched 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]	–	–
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	– 206-400-3 221-470-5
173	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9
174	Perfluorohexane-1-sulphonic acid and its salts	355-46-4	206-587-1
175	Chrysene	218-01-9, 1719-03-5	205-923-4
176	Benz[a]anthracene	56-55-3, 1718-53-2	200-280-6
177	Cadmium nitrate	10022-68-1, 10325-94-7	233-710-6
178	Cadmium hydroxide	21041-95-2	244-168-5
179	Cadmium carbonate	513-78-0	208-168-9
180	Dechlorane plus (covering any of its individual anti- and syn-isomers or any combination thereof); 1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1.6.9.02,13.05,10]octadeca-7,15-diene	–	–
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	–	–
182	Benzo[ghi]perylene (BgP)	191-24-2	205-883-8
183	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9
184	Disodium octaborate	12008-41-2	234-541-0
185	Dodecamethylcyclohexasiloxane (D6)	540-97-6	208-762-8
186	Ethylenediamine	107-15-3	203-468-6
187	Lead	7439-92-1	231-100-4
188	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7
189	Terphenyl, hydrogenated	61788-32-7	262-967-7
190	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9
191	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride (trimellitic anhydride)	552-30-7	209-008-0
192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor)	15087-24-8	239-139-9
193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1
194	Benzo[k]fluoranthene	207-08-9	205-916-6
195	Fluoranthene	206-44-0, 93951-69-0	205-912-4
196	Phenanthrene	85-01-8	201-581-5
197	Pyrene	129-00-0, 1718-52-1	204-927-3
198	2-methoxyethyl acetate	110-49-6	203-772-9
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	–	–
200	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	–	–
201	4-tert-butylphenol	98-54-4	202-679-0
202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3
203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6
204	Diisohexyl phthalate	71850-09-4	276-090-2
205	Perfluorobutane sulfonic acid (PFBS) and its salts	–	–
206	1-vinylimidazole	1072-63-5	214-012-0
207	2-methylimidazole	693-98-1	211-765-7
208	Butyl 4-hydroxybenzoate	94-26-8	202-318-7
209	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0
210	Bis(2-(2-methoxyethoxy)ethyl) ether; Tetraglyme	143-24-8	205-594-7
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety [1]Diocetyl tin dilaurate; [2]Stannane, dioctyl-, bis(coco acyloxy) derivs.	[1]3648-18-8 [2]91648-39-4	[1]222-883-3 [2]293-901-5

(*1)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 (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight

(*2)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 (Na₂O+K₂O+CaO+MgO+BaO) content less or equal to 18% by weight