

'TORAY'

TORAY PLASTICS (MALAYSIA) SDN BERHAD (46619-P)

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To Whom It May Concern:

From :



KL Yee
General Manager
Technical & Quality Division

Date: 18th July 2018

Dear Valued Customers,

Re: Non-Inclusion of Prohibited Chemical Substances in TORAYCON PBT Resin

We wish to express our deepest appreciation for your excellent support towards our TORAYCON PBT resin. Toray Plastics (Malaysia) Sdn. Bhd. (TPM) herein declares that all resin products as listed in **Table 1: TORAYCON PBT Resins** below supplied by our company to your company and any of its affiliates and subsidiaries follow and comply with the following requirements:

- European Union (EU) RoHS Directive 2011/65/EU
- REACH regulation EC No. 1907/2006
- Banned Phthalate Plasticizers 1999/815/EEC
- Montreal Protocol on Substances that Deplete the Ozone Layer
- Azo Dyes and Pigments Forming Specified Amines 2002/61/EC
- Conflict Mineral of Democratic Republic of the Congo
- Level 1 TPM Prohibited Substances

Chemical substances listed in **Attachment 1: List of Prohibited Chemical Substances (Rev. 17)**, are not intentionally added in any production stage of the mentioned TORAYCON PBT resins, to best of our knowledge.

Table 1: TORAYCON PBT Resins

No.	Grade Name
1.	TORAYCON 1050M
2.	TORAYCON 1100M
3.	TORAYCON 1200M
4.	TORAYCON 1200MF

In view of the many factors that may affect processing and application of our products, these information do not relieve user from carrying out own investigation and test, neither do these data imply any guarantee, or warranty for certain properties, uses, suitability, safety, hazards or health effects. This information relates only to the above mentioned materials as delivered in their original packaging. Besides, it does not relate to any product made of these materials with or without the inclusion of further additives. Thus, TPM makes no warranties, express or implied and assumes no liabilities in any use of the information.

Should you need further clarification, please feel free to contact us.

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
Annex A : European Union (EU) RoHS Directive 2011/65/EU		
A01	-	Lead (Pb) and its compounds
A02	-	Mercury (Hg) and its compounds
A03	-	Cadmium (Cd) and its compounds
A04	-	Hexavalent chromium (Cr ⁶⁺) compounds
A05	-	Polybrominated biphenyls (PBB)
A06	-	Polybrominated diphenyl ethers (PBDE)
A07	117-81-7	Bis(2-ethylhexyl) phthalate (DEHP)
A08	85-68-7	Benzyl butyl phthalate (BBP)
A09	84-74-2	Dibutyl phthalate (DBP)
A10	84-69-5	Diisobutyl phthalate (DIBP)
A11	25637-99-4	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified
	134237-50-6	Alpha-hexabromocyclododecane
	134237-51-7	Beta-hexabromocyclododecane
	134237-52-8	Gamma-hexabromocyclododecane
Annex B : REACH Regulation EC No. 1907/2006		
B01	96-18-4	1,2,3-trichloropropane
B02	68515-51-5 68648-93-1	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)
B03	71888-89-6	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich
B04	68515-42-4	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters
B05	68515-50-4	1,2-Benzenedicarboxylic acid, dihexylester, branched and linear
B06	84777-06-0	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear
B07	112-49-2	1,2-bis(2-methoxyethoxy)ethane (TEGDME, triglyme)
B08	107-06-2	1,2-Dichloroethane
B09	629-14-1	1,2-Diethoxyethane
B10	110-71-4	1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)
B11	2451-62-9	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)
B12	59653-74-6	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)
B13	1120-71-4	1,3-propanesultone
B14	-	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"™)
B15	106-94-5	1-bromopropane (n-propyl bromide)
B16	872-50-4	1-Methyl-2-pyrrolidone (NMP)
B17	101-14-4	2,2'-dichloro-4,4'-methylenedianiline
B18	3864-99-1	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)
B19	121-14-2	2,4-Dinitrotoluene
B20	25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
B21	36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)
B22	3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
B23	110-80-5	2-Ethoxyethanol
B24	111-15-9	2-Ethoxyethyl acetate
B25	15571-58-1	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)
B26	90-04-0	2-Methoxyaniline, o-Anisidine
B27	109-86-4	2-Methoxyethanol
B28	143860-04-2	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine
B29	101-77-9	4,4'- Diaminodiphenylmethane (MDA)
B30	561-41-1	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)]
B31	90-94-8	4,4'-bis(dimethylamino)benzophenone (Michler's ketone)
B32	80-05-7	4,4'-isopropylidenediphenol

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
B33	838-88-0	4,4'-methylenedi-o-toluidine
B34	101-80-4	4,4'-oxydianiline and its salts
B35	140-66-9	4-(1,1,3,3-tetramethylbutyl)phenol
B36	-	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]
B37	60-09-3	4-Aminoazobenzene
B38	-	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]
B39	95-80-7	4-methyl-m-phenylenediamine (toluene-2,4-diamine)
B40	-	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]
B41	-	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]
B42	-	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]
B43	81-15-2	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)
B44	120-71-8	6-methoxy-m-toluidine (p-cresidine)
B45	548-62-9	[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)]
B46	2580-56-5	[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)]
B47	69011-06-9	[Phthalato(2-)]dioxotrilead
B48	51404-69-4	Acetic acid, lead salt, basic
B49	7738-94-5 13530-68-2	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.
B50	79-06-1	Acrylamide
B51	85535-84-8	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
B52	-	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
B53	7789-09-5	Ammonium dichromate
B54	3825-26-1	Ammonium pentadecafluorooctanoate (APFO)
B55	120-12-7	Anthracene

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
B56	90640-80-5	Anthracene oil
B57	90640-81-6	Anthracene oil, anthracene paste
B58	91995-15-2	Anthracene oil, anthracene paste, anthracene fraction
B59	91995-17-4	Anthracene oil, anthracene paste, distn. lights
B60	90640-82-7	Anthracene oil, anthracene-low
B61	7778-39-4	Arsenic acid
B62	56-55-3 1718-53-2	Benz[a]anthracene
B63	552-30-7	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride
B64	50-32-8	Benzo[def]chrysene
B65	191-24-2	Benzo[ghi]perylene
B66	85-68-7	Benzyl butyl phthalate (BBP)
B67	92-67-1	Biphenyl-4-ylamine
B68	117-81-7	Bis (2-ethylhexyl)phthalate (DEHP)
B69	111-96-6	Bis(2-methoxyethyl) ether
B70	117-82-8	Bis(2-methoxyethyl) phthalate
B71	1163-19-5	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)
B72	56-35-9	Bis(tributyltin) oxide (TBTO)
B73	10043-35-3 11113-50-1	Boric acid
B74	7440-43-9	Cadmium
B75	513-78-0	Cadmium Carbonate
B76	10108-64-2	Cadmium chloride
B77	7790-79-6	Cadmium fluoride
B78	21041-95-2	Cadmium hydroxide
B79	10022-68-1 10325-94-7	Cadmium nitrate
B80	1306-19-0	Cadmium oxide
B81	10124-36-4 31119-53-6	Cadmium sulphate
B82	1306-23-6	Cadmium sulphide
B83	7778-44-1	Calcium arsenate
B84	1333-82-0	Chromium trioxide
B85	218-01-9 1719-03-5	Chrysene
B86	7646-79-9	Cobalt dichloride
B87	513-79-1	Cobalt(II) carbonate
B88	71-48-7	Cobalt(II) diacetate
B89	10141-05-6	Cobalt(II) dinitrate
B90	10124-43-3	Cobalt(II) sulphate
B91	85-42-7 13149-00-3 14166-21-3	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]
B92	541-02-6	Decamethylcyclopentasiloxane
B93	1303-28-2	Diarsenic pentaoxide
B94	1327-53-3	Diarsenic trioxide
B95	123-77-3	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)
B96	1303-86-2	Diboron trioxide
B97	84-74-2	Dibutyl phthalate (DBP)
B98	683-18-1	Dibutyltin dichloride (DBTC)
B99	24613-89-6	Dichromium tris(chromate)
B100	84-61-7	Dicyclohexyl phthalate
B101	64-67-5	Diethyl sulphate
B102	84-75-3	Dihexyl phthalate
B103	84-69-5	Diisobutyl phthalate
B104	605-50-5	Diisopentylphthalate
B105	77-78-1	Dimethyl sulphate

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
B106	88-85-7	Dinoseb (6-sec-butyl-2,4-dinitrophenol)
B107	12578-12-0	Dioxobis(stearato)trilead
B108	131-18-0	Dipentyl phthalate (DPP)
B109	573-58-0	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)
B110	1937-37-7	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)
B111	12008-41-2	Disodium octaborate
B112	1303-96-4	Disodium tetraborate, anhydrous
	1330-43-4	
	12179-04-3	
B113	540-97-6	Dodecamethylcyclohexasiloxane
B114	107-15-3	Ethylenediamine
B115	91031-62-8	Fatty acids, C16-18, lead salts
B116	25214-70-4	Formaldehyde, oligomeric reaction products with aniline
B117	75-12-7	Formamide
B118	110-00-9	Furan
B119	2058-94-8	Henicosafuoroundecanoic acid
B120	376-06-7	Heptacosafuorotetradecanoic acid
B121	25637-99-4	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane
	3194-55-6	
	134237-50-6	
	134237-51-7	
B122	25550-51-0	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]
	19438-60-9	
	48122-14-1	
	57110-29-9	
B123	302-01-2	Hydrazine
	7803-57-8	
B124	96-45-7	Imidazolidine-2-thione (2-imidazoline-2-thiol)
B125	7439-92-1	Lead
B126	13814-96-5	Lead bis(tetrafluoroborate)
B127	7758-97-6	Lead chromate
B128	12656-85-8	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)
B129	20837-86-9	Lead cyanamidate
B130	301-04-2	Lead di(acetate)
B131	13424-46-9	Lead diazide, Lead azide
B132	10099-74-8	Lead dinitrate
B133	6477-64-1	Lead dipicrate
B134	7784-40-9	Lead hydrogen arsenate
B135	1317-36-8	Lead monoxide (lead oxide)
B136	12036-76-9	Lead oxide sulfate
B137	15245-44-0	Lead styphnate
B138	1344-37-2	Lead sulfochromate yellow (C.I. Pigment Yellow 34)
B139	12060-00-3	Lead titanium trioxide
B140	12626-81-2	Lead titanium zirconium oxide
B141	17570-76-2	Lead(II) bis(methanesulfonate)
B142	625-45-6	Methoxyacetic acid
B143	75-56-9	Methyloxirane (Propylene oxide)
B144	101-61-1	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)
B145	127-19-5	N,N-dimethylacetamide
B146	68-12-2	N,N-dimethylformamide
B147	79-16-3	N-methylacetamide
B148	776297-69-9	N-pentyl-isopentylphthalate

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
B149	98-95-3	Nitrobenzene
B150	335-76-2 3108-42-7 3830-45-3	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts
B151	97-56-3	o-aminoazotoluene
B152	95-53-4	o-Toluidine
B153	556-67-2	Octamethylcyclotetrasiloxane
B154	1314-41-6	Orange lead (lead tetroxide)
B155	80-46-6	p-(1,1-dimethylpropyl)phenol
B156	72629-94-8	Pentacosafuorotridecanoic acid
B157	335-67-1	Pentadecafluorooctanoic acid (PFOA)
B158	12065-90-6	Pentalead tetraoxide sulphate
B159	49663-84-5	Pentazinc chromate octahydroxide
B160	-	Perfluorohexane-1-sulphonic acid and its salts
B161	375-95-1 21049-39-8 4149-60-4	Perfluorononan-1-oic-acid and its sodium and ammonium salts
B162	77-09-8	Phenolphthalein
B163	65996-93-2	Pitch, coal tar, high temp.
B164	7789-00-6	Potassium chromate
B165	7778-50-9	Potassium dichromate
B166	11103-86-9	Potassium hydroxyoctaoxodizincatedichromate
B167	8012-00-8	Pyrochlore, antimony lead yellow
B168	-	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)
B169	-	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)
B170	68784-75-8	Silicic acid (H ₂ Si ₂ O 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]
B171	11120-22-2	Silicic acid, lead salt
B172	7775-11-3	Sodium chromate
B173	7789-12-0 10588-01-9	Sodium dichromate
B174		Sodium perborate,perboric acid, sodium salt
B175	7632-04-4	Sodium peroxometaborate
B176	7789-06-2	Strontium chromate
B177	62229-08-7	Sulfurous acid, lead salt, dibasic
B178	61788-32-7	Terphenyl, hydrogenated
B179	12267-73-1	Tetraboron disodium heptaoxide, hydrate
B180	78-00-2	Tetraethyllead
B181	12202-17-4	Tetralead trioxide sulphate
B182	79-01-6	Trichloroethylene
B183	307-55-1	Tricosafuorododecanoic acid
B184	15606-95-8	Triethyl arsenate
B185	1319-46-6	Trilead bis(carbonate) dihydroxide
B186	3687-31-8	Trilead diarsenate
B187	12141-20-7	Trilead dioxide phosphonate
B188	115-96-8	Tris(2-chloroethyl)phosphate
B189	25155-23-1	Trixylyl phosphate
B190	-	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,

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
B191	6786-83-0	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)]
Annex C : Phthalate Plasticizers 1999/815/EEC		
C01	117-81-7	Di(2-ethylhexyl) phthalate (DEHP)
C02	26761-40-0	Di-iso-decyl phthalate (DIDP)
C03	28553-12-0	Di-iso-nonyl phthalate (DINP)
C04	84-74-2	Di-n-butyl phthalate (DBP)
C05	117-84-0	Di-n-octyl phthalate (DNOP)
C06	85-68-7	Butyl benzyl phthalate (BBP)
C07	84-75-3	Di-n-hexyl phthalate (DNHP)
Annex D: Conflict Minerals		
D01	-	Columbite-tantalite (Tantalum)
D02	-	Cassiterite (Tin)
D03	-	Wolframite (Tungsten)
D04	-	Gold
Annex E1 : Montreal Protocol on Substances that Deplete the Ozone Layer (Document A)		
Group I		
E01	CFCl ₃	Trichlorofluoromethane (CFC-11)
E02	CF ₂ Cl ₂	Dichlorodifluoromethane (CFC-12)
E03	C ₂ F ₃ Cl ₃	Trichlorotrifluoroethane (CFC-113)
E04	C ₂ F ₄ Cl ₂	Dichlorotetrafluoroethane (CFC-114)
E05	C ₂ F ₅ Cl	Chloropentafluoroethane (CFC-115)
Group II		
E06	CF ₂ BrCl	Bromochlorodifluoromethane (Halon 1211)
E07	CF ₃ Br	Bromotrifluoromethane (Halon 1301)
E08	C ₂ F ₄ Br ₂	Dibromotetrafluoroethane (Halon 2402)
Annex E2 : Montreal Protocol on Substances that Deplete the Ozone Layer (Document B)		
Group I		
E09	CF ₃ Cl	Chlorotrifluoromethane (CFC-13)
E10	C ₂ FCl ₅	Pentachlorofluoroethane (CFC-111)
E11	C ₂ F ₂ Cl ₄	Tetrachlorodifluoroethane (CFC-112)
E12	C ₃ FCl ₇	Heptachlorofluoropropane (CFC-211)
E13	C ₃ F ₂ Cl ₆	Hexachlorodifluoropropane (CFC-212)
E14	C ₃ F ₃ Cl ₅	Pentachlorotrifluoropropane (CFC-213)
E15	C ₃ F ₄ Cl ₄	Tetrachlorotetrafluoropropane (CFC-214)
E16	C ₃ F ₅ Cl ₃	Trichloropentafluoropropane (CFC-215)
E17	C ₃ F ₆ Cl ₂	Dichlorohexafluoropropane (CFC-216)
E18	C ₃ F ₇ Cl	Chloroheptafluoropropane (CFC-217)
Group II		
E19	CCl ₄	Tetrachloromethane (Carbon tetrachloride)
Group III		
E20	C ₂ H ₃ Cl ₃	1,1,1-Trichloroethane (Methyl chloroform)
Annex E3 : Montreal Protocol on Substances that Deplete the Ozone Layer (Document C)		
Group I		
E21	CHFCI ₂	Dichlorofluoromethane (HCFC-21)
E22	CHF ₂ Cl	Chlorodifluoromethane (HCFC-22)
E23	CH ₂ FCI	Chlorofluoromethane (HCFC-31)
E24	C ₂ HFCI ₄	Tetrachlorofluoroethane (HCFC-121)
E25	C ₂ HF ₂ Cl ₃	Trichlorofluoroethane (HCFC-122)
E26	C ₂ HF ₃ Cl ₂	Dichlorotrifluoroethane (HCFC-123)
E27	CHCl ₂ CF ₃	Dichlorotrifluoroethane (HCFC-123)
E28	C ₂ HF ₄ Cl	Chlorotetrafluoroethane (HCFC-124)
E29	CHFClCF ₃	Chlorotetrafluoroethane (HCFC-124)
E30	C ₂ H ₂ FCI ₃	Trichlorofluoroethane (HCFC-131)

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
E31	C ₂ H ₂ F ₂ Cl ₂	Dichlorodifluoroethane (HCFC-132)
E32	C ₂ H ₂ F ₃ Cl	Chlorotrifluoroethane (HCFC-133)
E33	C ₂ H ₃ FCl ₂	Dichlorofluoroethane (HCFC-141)
E34	CH ₃ CFCl ₂	Dichlorofluoroethane (HCFC-141b)
E35	C ₂ H ₃ F ₂ Cl	Chlorodifluoroethane (HCFC-142)
E36	CH ₃ CF ₂ Cl	Chlorodifluoroethane (HCFC-142b)
E37	C ₂ H ₄ FCI	Chlorofluoroethane (HCFC-151)
E38	C ₃ HFCl ₆	Hexachlorofluoropropane (HCFC-221)
E39	C ₃ HF ₂ Cl ₅	Pentachlorodifluoropropane (HCFC-222)
E40	C ₃ HF ₃ Cl ₄	Tetrachlorotrifluoropropane (HCFC-223)
E41	C ₂ HF ₄ Cl ₃	Trichlorotetrafluoropropane (HCFC-224)
E42	C ₃ HF ₅ Cl ₂	Dichloropentafluoropropane (HCFC-225)
E43	CF ₃ CF ₂ CHCl ₂	Dichloropentafluoropropane (HCFC-225ca)
E44	CF ₂ CICF ₂ CHCIF	Dichloropentafluoropropane (HCFC-225cb)
E45	C ₃ HF ₆ Cl	Chlorohexafluoropropane (HCFC-226)
E46	C ₃ H ₂ FCl ₅	Pentachlorofluoropropane (HCFC-231)
E47	C ₃ H ₂ F ₂ Cl ₄	Tetrachlorodifluoropropane (HCFC-232)
E48	C ₃ H ₂ F ₃ Cl ₃	Trichlorotrifluoropropane (HCFC-233)
E49	C ₃ H ₂ F ₄ Cl ₂	Dichlorotetrafluoropropane (HCFC-234)
E50	C ₃ H ₂ F ₅ Cl	Chloropentafluoropropane (HCFC-235)
E51	C ₃ H ₃ FCl ₄	Tetrachlorofluoropropane (HCFC-241)
E52	C ₃ H ₃ F ₂ Cl ₃	Trichlorodifluoropropane (HCFC-242)
E53	C ₃ H ₃ F ₃ Cl ₂	Dichlorotrifluoropropane (HCFC-243)
E54	C ₃ H ₃ F ₄ Cl	Chlorotetrafluoropropane (HCFC-244)
E55	C ₃ H ₄ FCl ₃	Trichlorofluoropropane (HCFC-251)
E56	C ₃ H ₄ F ₂ Cl ₂	Dichlorodifluoropropane (HCFC-252)
E57	C ₃ H ₄ F ₃ Cl	Chlorotrifluoropropane (HCFC-253)
E58	C ₃ H ₅ FCl ₂	Dichlorofluoropropane (HCFC-261)
E59	C ₃ H ₅ F ₂ Cl	Chlorodifluoropropane (HCFC-262)
E60	C ₃ H ₆ FCI	Chlorofluoropropane (HCFC-271)
Group II		
E61	CHFBr ₂	Dibromo-fluoromethane
E62	CHF ₂ Br	Dibromo-difluoromethane
E63	C ₂ HF ₂ Br ₃	Tribromo-difluoroethane
E64	C ₂ HF ₄ Br	Bromo-tetrafluoroethane
E65	C ₂ H ₂ F ₂ Br ₂	Dibromo-difluoroethane
E66	C ₂ H ₃ FBr ₂	Dibromo-fluoroethane
E67	C ₂ H ₄ FBr	Bromofluoroethane
E68	C ₃ HF ₂ Br ₅	Pentabromo-difluoropropane
E69	C ₃ HF ₄ Br ₃	Tribromo-tetrafluoropropane
E70	C ₃ HF ₆ Br	Bromo-hexafluoropropane
E71	C ₃ H ₂ F ₂ Br ₄	Tetrabromo-fluoropropane
E72	C ₃ H ₂ F ₄ Br ₂	Dibromo-tetrafluoropropane
E73	C ₃ H ₃ FBr ₄	Tetrabromo-fluoropropane
E74	C ₃ H ₃ F ₃ Br ₂	Dibromo-trifluoropropane
E75	C ₃ H ₄ FBr ₃	Tribromo-fluoropropane
E76	C ₃ H ₄ F ₃ Br	Bromo-trifluoropropane
E77	C ₃ H ₅ F ₂ Br	Bromo-difluoropropane
E78	CH ₂ FBr	Bromo-fluoromethane
E79	C ₂ HFBBr ₄	Tetrabromo-fluoroethane
E80	C ₂ HF ₃ Br ₂	Dibromo-trifluoroethane
E81	C ₂ H ₂ FBr ₃	Tribromo-fluoroethane

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
E82	C ₂ H ₂ F ₃ Br	Bromo-trifluoroethane
E83	C ₂ H ₃ F ₂ Br	Bromo-difluoroethane
E84	C ₃ HFBr ₆	Hexabromo-fluoropropane
E85	C ₃ HF ₃ Br ₄	Tetrabromo-trifluoropropane
E86	C ₃ HF ₅ Br ₂	Dibromo-pentafluoropropane
E87	C ₃ H ₂ FBr ₅	Pentabromo-fluoropropane
E88	C ₃ H ₂ F ₃ Br ₃	Tribromo-trifluoropropane
E89	C ₃ H ₂ F ₅ Br	Bromo-pentafluoropropane
E90	C ₃ H ₃ F ₂ Br ₃	Tribromo-difluoropropane
E91	C ₃ H ₃ F ₄ Br	Bromo-tetrafluoropropane
E92	C ₃ H ₄ F ₂ Br ₂	Dibromo-difluoropropane
E93	C ₃ H ₅ FBr ₂	Dibromo-fluoropropane
E94	C ₃ H ₆ FBr	Bromo-fluoropropane
Group III		
E95	CH ₂ BrCl	Bromochloromethane
Annex E4 : Montreal Protocol on Substances that Deplete the Ozone Layer (Document E)		
E96	CH ₃ Br	Bromomethane
Annex F: Azo Dyes and Pigments Forming Specified Amines 2002/61/EC		
F01	60-09-3	4-Amino azobenzene
F02	90-04-0	o-Anisidine 2-Methoxyaniline
F03	91-59-8	2-Naphthylamine
F04	91-94-1	3,3'-Dichlorobenzidine 3,3'-Dichlorobiphenyl-4,4'-ylenediamine
F05	92-67-1	Biphenyl-4-ylamine 4-Aminobiphenyl Xenylamine
F06	92-87-5	Benzidine
F07	95-53-4	o-Toluidine 2-Aminotoluene
F08	95-69-2	4-Chloro-o-toluidine
F09	95-80-7	4-Methyl-m-phenylenediamine
F10	97-56-3	o-Aminoazotoluene 4-Amino-2',3-dimethylazobenzene 4-o-Tolylazo-o-toluidine
F11	99-55-8	5-Nitro-o-toluidine
F12	101-14-4	4,4'-Methylene-bis-(2-chloro-aniline) 2,2'-Dichloro-4,4'-methylene-dianiline
F13	101-77-9	4,4'-Methylenedianiline 4,4'-Diaminodiphenylmethane
F14	101-80-4	4,4'-Oxydianiline
F15	106-47-8	4-Chloroaniline
F16	119-90-4	3,3'-Dimethoxybenzidine o-Dianisi-dine
F17	119-93-7	3,3'-Dimethylbenzidine 4,4'-Bi-o-toluidine
F18	120-71-8	6-Methoxy-m-toluidine p-Cresidine
F19	137-17-7	2,4,5-Trimethylaniline
F20	139-65-1	4,4'-Thiodianiline
F21	615-05-4	4-Methoxy-m-phenylenediamine
F22	838-88-0	4,4'-Methylenedi-o-toluidine
Annex G: Level 1 TPM Prohibited Substances		
G01	107-06-2	1,2-Dichloroethane
G02	542-75-6	1,3-Dichloropropene (Telone)
G03	3173-72-6	1,5-Naphthalene diisocyanate

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
G04	-	2,2,3,3,4,5,5-Heptafluoro-4-(perfluorobutyl)oxolane or 2,2,3,3,4,4,5-Heptafluoro-4-(perfluorobutyl)oxolane
G05	3846-71-7	2-(2H-1,2,3-benzotriazole-2-yl)-4,6-di-tert-butylphenol
G06	732-26-3	2,4,6-Tri-tert-butylphenol
G07	80-05-7	4,4'-Dihydroxy-2,2-diphenylpropane (Bisphenol A)
G08	92-93-3	4-Nitrobiphenyls
G09	309-00-2	Aldrin (= 1 α ,2,3,4 α ,10,10-Hexachloro-1,4,4a β ,5 β ,8 β ,8a β -hexahydro-1 β ,4 β :5 α ,8 α -dimethanonaphthalene)
G10	12172-73-5	Amosit
G11	1331-21-4	Asbestos
G12	-	Azo compounds (Compounds that might produce substances in Annex F after degradation)
G13	71-43-2	Benzene
G14	-	Beryllium (Be) and its compounds
G15	542-88-1	Bis(chloromethyl) ether
G16	57-74-9	Chlordane
G17	3734-48-3, 76-44-8	Chlordene or Heptachlor and their mixture
G18	-	Chlorinated paraffin
G19	108-90-7	Chlorobenzene
G20	2921-88-2	Chlorpyrifos (= Phosphorothioic acid O,O-diethyl O-(3,5,6-trichloro-2-pyridyl))
G21	156-59-2	Cis-1,2-dichloroethylene
G22	-	Cobalt (Co) and its compounds
G23	12001-28-4	Crocidolite
G24	50-29-3	DDT (4,4'-Dichlorodiphenyltrichloroethane)
G25	-	Dibutyltin (DBT) compounds
G26	75-09-2	Dichloromethane
G27	115-32-2	Dicofol
G28	60-57-1	Dieldrin
G29	84-66-2	Diethyl phthalate
G30	624-49-7	Dimethyl fumarate (DMF)
G31	-	Diocetyl tin (DOT) compounds
G32	72-20-8	Endrin
G33	106-89-8	Epichlorohydrin
G34	50-00-0	Formaldehyde
G35	118-74-1	Hexachlorobenzene
G36	87-68-3	Hexachlorobutadiene
G37	2385-85-5	Mirex
G38	-	N,N'-ditolyl-p-phenylenediamine
G39	-	N,N'-dixylyl-p-phenylenediamine
G40	91-20-3	Naphthalene
G41	7440-02-0	Nickel (Ni) and its compounds
G42	-	N-tolyl-N-xylyl-p-phenylenediamine
G43	27417-40-9,	N,N'-Ditolyl-p-phenylenediamine compounds or N-(Dimethylphenyl)-N'-(tolylphenyl)-p-phenylenediamine compounds or N,N'-bis(Dimethylphenyl)-p-phenylenediamine compounds
G44	-	Hydrofluorocarbons (HFC) and Perfluorocarbons (PFC)
G45	-	Organic brominated compounds other than PBB and PBDE
G46	14797-73-0	Perchlorate
G47	1763-23-1	Perfluorooctane sulfonate and its salts (PFOS)
G48	335-67-1	Perfluorooctanoic acid
G49	307-55-1	Perfluorododecanoic acid
G50	72629-94-8	Perfluorotridecanoic acid
G51	376-06-7	Perfluorotetradecanoic acid
G52	-	Perfluoropentadecanoic acid
G53	67905-19-5	Perfluorohexadecanoic acid
G54	335-57-9	Perfluoroheptane
G55	307-34-6	Perfluorooctane

List of Prohibited Chemical Substances

No.	CAS No./ Chemical Formula	Substance
G56	-	Polychlorinated biphenyls (PCB)
G57	-	Polychlorinated naphthalene (PCN) (3 or more chlorine atoms)
G58	61788-33-8	Polychlorinated terphenyls (PCT)
G59	-	Polycyclic aromatic hydrocarbons (PAH)
G60	-	Polyvinylchloride (PVC) and its mixtures
G61	-	Radioactive substances
G62	-	Rubber cement containing benzene beyond 5wt%
G63	2551-62-4	Sulfur hexafluoride (SF6)
G64	127-18-4	Tetrachloroethylene (Perchloroethylene)
G65	-	Tetraphosphorus
G66	62-56-6	Thiourea
G67	8001-35-2	Toxaphene
G68	-	Tributyl tin compounds and Triphenyl tin compounds
G69	13674-84-5	Tris(1-chloro-2-propyl)phosphate (TCPP)
G70	13674-87-8	Tris(1,3-dichloro-2-propyl)phosphate (TDCP)
G71	75-01-4	Vinyl chloride
G72	75-35-4	Vinylidene chloride
G73	1330-20-7	Xylene
G74	7723-14-0	Yellow phosphorus
G75	3864-99-1	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)
G76	3846-71-7	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
G77	25973-55-1	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
G78	36437-37-3	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)