TEST REPORT

Report No.: 2502W73679E Date: October 27, 2025

Renesas Design Korea Inc.
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Bundang-gu, Seongnam-si, Gyeonggi-do, 13486
Republic of Korea

Report on the submitted samples said to be:

Sample Name:	RRQ61051 Module
Tested Model(s):	RRQ61051-008
Client Reference Information:	RRQ61051-408,RRQ61051-208
Brand:	Renesas
Note:	The test results apply only to the particular sample tested and to the specific tests carried out. This verification applies specifically to the sample investigated in our test report number only.
Sample Receiving Date:	August 11, 2025
Testing Period:	August 11, 2025 - August 20, 2025
Result:	Please refer to next page(s).

Signed for and on behalf of

BACL

Checked by: Queenie Lee

Approved by: Len Xie

TEST REPORT

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Summary of Test Result:

TEST REQUEST	CONCLUSION
A. Two hundred and fifty (250) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before 25 June 2025 regarding Regulation (EC) No 1907/2006 concerning the REACH	See Remark

Remark: According to the specified scope and analytical technique, concentrations of all SVHC in candidate list are <0.1% in the submitted sample(s).

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Result:

Tested part(s):

(1) Silvery metal (cover , PCB)

(2) Blue/white PCB (PCB)

(3) Silvery solder (PCB)

(4) Black body (IC , PCB)

(5) Black body (inductor , PCB)

(6) Brown body (capacitor , PCB)

(7) Black body (EC , PCB)

(8) Blue body (EC , PCB)

(9) Silvery metal (crystal oscillator , PCB)

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A. Two hundred and fifty (250) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before 25 June 2025 regarding Regulation (EC) No 1907/2006 concerning the REACH

Test method: With reference to in- house method, Analysis is performed by ICP-AES, UV-VIS, IC, GC-MS, Headspace GC-MS, LC-MS/MS, HPLC-TS-MS.

Item	Unit	RL	Result	
			(1)+(3)	(2)+(4)+(5)+(6)+(7)+(8)+(9)
All Tested 250 SVHC in the Candidate	%	/	N.D.	N.D.

Full list of tested SVHC:

No.	Item	CAS No.	EC No.	Unit	RL	Category
1	Anthracene(ANT)	120-12-7	204-371-1	%	0.010	PBT
2	4,4′ -diaminodiphenylmethane (9#)	101-77-9	202-974-4	%	0.010	CMR
3	Dibutyl Phthalate(DBP)	84-74-2	201-557-4	%	0.005	CMR
4	Cobalt Dichloride(CoCl2)*	7646-79-9	231-589-4	%	0.010	CMR
5	Diarsenic Pentaoxide(As2O5)*	1303-28-2	215-116-9	%	0.010	CMR
6	Diarsenic Trioxide(As O)*	1327-53-3	215-481-4	%	0.010	CMR
7	Sodium Dichromate, Dihydrate*	7789-12-0; 10588-01-9	234-190-3	%	0.010	CMR
8	5-tert-butyl-2,4,6-trinitro-m-xylene(musk xylene)	81-15-2	201-329-4	%	0.010	vPvB
9	Bis-(2-ethylhexyl) Phthalate (DEHP)	117-81-7	204-211-0	%	0.005	Equivalent level of concern having probable serious effects to the environment (Article 57 f);Toxic for reproduction (article 57c)
10	Hexabromocyclododecane (HBCDD)	25637-99-4 & 3194-55-6 (134237-51-7,134237-50-6,134237-52-8)	247-148-4;221-695-9	%	0.010	PBT
11	Alkanes, C10-13, chloro(Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	287-476-5	%	0.009	PBT
12	Bis(tributyltin)oxide(TBTO) (TBTO)**	56-35-9	200-268-0	%	0.010	PBT
13	Lead Hydrogen Arsenate*	7784-40-9	232-064-2	%	0.010	CMR
14	Benzyl Butyl Phthalate(BBP)	85-68-7	201-622-7	%	0.005	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
15	Triethyl Arsenate*	15606-95-8	427-700-2	%	0.010	CMR
16	Anthracene oil***	90640-80-5	292-602-7	%	0.010	PBT
17	Anthracene oil, anthracene paste, distn. lights***	91995-17-4	295-278-5	%	0.010	PBT
18	Anthracene oil, anthracene paste, anthracene fraction***	91995-15-2	295-275-9	%	0.010	PBT
19	Anthracene oil,Anthracene-low***	90640-82-7	292-604-8	%	0.010	PBT
20	Anthracene oil, anthracene paste***	90640-81-6	292-603-2	%	0.010	PBT
21	Diisobutyl phthalate(DIBP)	84-69-5	201-553-2	%	0.005	CMR
22	2,4-Dinitrotoluene(2,4-Dinitrotoluene)	121-14-2	204-450-0	%	0.010	CMR
23	coal tar pitch, high temperature***	65996-93-2	266-028-2	%	0.010	PBT
24	tris(2-chloroethyl)phosphate (TCEP)	115-96-8	204-118-5	%	0.010	CMR
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)(C.I. Pigment Yellow 34)	1344-37-2	215-693-7	%	0.010	CMR
26	C.I.Pigment Red 104 (C.I.Pigment Red 104)	12656-85-8	235-759-9	%	0.010	CMR
27	Lead chromate: chrome yellow (Lead chromate)	7758-97-6	231-846-0	%	0.010	CMR
28	Acrylamide(Acrylamide)	79-06-1	201-173-7	%	0.010	CMR
29	Trichloroethylene (Trichloroethylene)	79-01-6	201-167-4	%	0.010	CMR
30	Boric acid(Boric acid)	10043-35-3; 11113-50-1	233-139-2; 234-343-4	%	0.010	CMR
31	Disodium tetraborate, anhydrous*	1330-43-4;12179-04-3;1303-96-4	215-540-4	%	0.010	CMR
32	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	%	0.010	CMR
33	Sodium chromate*	7775-11-3	231-889-5	%	0.010	CMR
34	Potassium chromate*	7789-00-6	232-140-5	%	0.010	CMR
35	Ammonium dichromate*	7789-09-5	232-143-1	%	0.010	CMR
36	Potassium dichromate*	7778-50-9	231-906-6	%	0.010	CMR
37	Cobalt(II) sulfate*	10124-43-3	233-334-2	%	0.010	CMR
38	Cobalt(II) dinitrate*	10141-05-6	233-402-1	%	0.010	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
39	Cobalt(II) carbonate*	513-79-1	208-169-4	%	0.010	CMR
40	Cobalt(II) diacetate*	71-48-7	200-755-8	%	0.010	CMR
41	2-Methoxyethanol(2-Methoxyethanol)	109-86-4	203-713-7	%	0.010	CMR
42	2-Ethoxyethanol(2-Ethoxyethanol)	110-80-5	203-804-1	%	0.010	CMR
43	Chromium trioxide*	1333-82-0	215-607-8	%	0.010	CMR
44	Chromic acid, Dichromic acid, Oligomers of chromicacid and dichromic acid*	7738-94-5; 13530-68-2	231-801-5;236-881-5	%	0.010	CMR
45	2-Ethoxyethyl acetate(2-Ethoxyethyl acetate)	111-15-9	203-839-2	%	0.010	CMR
46	strontium chromate*	7789-06-2	232-142-6	%	0.010	CRM
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters(DHNUP)	68515-42-4	271-084-6	%	0.005	CMR
48	Hydrazine	7803-57-8; 302-01-2	206-114-9	%	0.010	CMR
49	1-methyl-2-pyrrolidone(NMP)	872-50-4	212-828-1	%	0.010	CMR
50	1,2,3-Trichloropropane(1,2,3-Trichloropropane)	96-18-4	202-486-1	%	0.010	CMR
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP(C7-rich))	71888-89-6	276-158-1	%	0.005	CMR
52	Zirconia Aluminosilicate Refractory Ceramic Fibres****	---	---	%	0.010	CMR
53	Calcium arsenate*	7778-44-1	231-904-5	%	0.010	CMR
54	Bis(2-methoxy ethyl)ether(Bis(2-methoxy ethyl)ether)	111-96-6	203-924-4	%	0.010	CMR
55	Aluminosilicate Refractory Ceramic Fibres(RCF)****	---	---	%	0.010	CMR
56	Potassium hydroxyoctaoxodizincatedichromate*	11103-86-9	234-329-8	%	0.010	CMR
57	Lead dipicrate	6477-64-1	229-335-2	%	0.010	CMR
58	N,N-Dimethylacetamide (DMAC)	127-19-5	204-826-4	%	0.010	CMR
59	Arsenic acid	7778-39-4	231-901-9	%	0.010	CMR
60	o-anisidine(21#)	90-04-0	201-963-1	%	0.010	CMR
61	Trilead diarsenate*	3687-31-8	222-979-5	%	0.010	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
62	1,2-Dichloroethane(1,2-Dichloroethane)	107-06-2	203-458-1	%	0.010	CMR
63	Pentazinc chromate octahydroxide	49663-84-5	256-418-0	%	0.010	CMR
64	4-(1,1,3,3-tetramethylbutyl) phenol(4-tert-OP)	140-66-9	205-426-2	%	0.010	Equivalent level of concern having probable serious effects to the environment
65	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	%	0.010	CMR
66	Bis(2-methoxyethyl) Phthalate (DMEP)	117-82-8	204-212-6	%	0.005	CMR
67	Lead diazide, Lead azide*	13424-46-9	236-542-1	%	0.010	CMR
68	Lead styphnate*	15245-44-0	239-290-0	%	0.010	CMR
69	2,2'-dichloro-4,4'-methylenedianiline(MOCA)	101-14-4	202-918-9	%	0.010	CMR
70	Phenolphthalein	77-09-8	201-004-7	%	0.010	CMR
71	Dichromium tris(chromate)*	24613-89-6	246-356-2	%	0.010	CMR
72	1,2-bis(2-methoxyethoxy) ethane (TEGDME; triglyme) (TEGDME)	112-49-2	203-977-3	%	0.010	CMR
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether(EGDME)	110-71-4	203-794-9	%	0.010	CMR
74	Diboron trioxide*	1303-86-2	215-125-8	%	0.010	CMR
75	Formamide(FMA)	75-12-7	200-842-0	%	0.010	CMR
76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	%	0.010	CMR
77	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	219-514-3	%	0.010	CMR
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	%	0.010	CMR
79	4,4'-Bis(dimethylamino) benzophenone(Michler's ketone)	90-94-8	202-027-5	%	0.010	CMR
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	202-959-2	%	0.010	CMR
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	%	0.010	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
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	%	0.010	CMR
83	α,α-Bis[4-(dimethylamino) phenyl]-4 (phenylamino) naphthalene-1 -methanol(C.I. Solvent Blue 4)*****	6786-83-0	229-851-8	%	0.010	CMR
84	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol*****	561-41-1	209-218-2	%	0.010	CMR
85	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)(DecaBDE)	1163-19-5	214-604-9	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)
86	Pentacosafluorotridecanoic acid(PFTrDA)	72629-94-8	276-745-2	%	0.010	vPvB
87	Tricosafluorododecanoic acid (PFDoA)	307-55-1	206-203-2	%	0.010	vPvB(Article 57e)
88	Henicosafluoroundecanoic acid	2058-94-8	218-165-4	%	0.010	vPvB
89	Heptacosafluorotetradecanoic acid	376-06-7	206-803-4	%	0.010	vPvB
90	4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	---	---	%	0.010	Equivalent level of concern having probable serious effects to the environment
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	---	---	%	0.010	Endocrine disrupting properties (Article 57 (f)-environment)
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	%	0.010	Equivalent level of concern having probable serious effects to the environment

No.	Item	CAS No.	EC No.	Unit	RL	Category
93	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	85-42-7; 13149-00-3; 14166-21-3	201-604-9;236-086-3;238-009-9	%	0.010	Equivalent level of concern having probable serious effects to the environment
94	Hexahydromethylphathalic anhydride, Hexahydro-4-methylphathalic anhydride, Hexahydro-1-methylphathalic anhydride, Hexahydro-3-methylphathalic 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	%	0.010	Equivalent level of concern having probable serious effects to the environment
95	Methoxyacetic acid	625-45-6	210-894-6	%	0.010	CMR
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear(DPIP)	84777-06-0	284-032-2	%	0.005	CMR
97	Diisopentyl phthalate(DIPP)	605-50-5	210-088-4	%	0.005	CMR
98	n-pentyl-isopentyl phthalate (PIPP)	776297-69-9	---	%	0.005	CMR
99	1,2-Diethoxyethane	629-14-1	211-076-1	%	0.010	CMR
100	N,N-dimethylformamide (DMFA)	68-12-2	200-679-5	%	0.010	CMR
101	Dibutyltin dichloride(DBTC)	683-18-1	211-670-0	%	0.010	CMR
102	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	%	0.010	CMR
103	Trilead bis(carbonate) dihydroxide*	1319-46-6	215-290-6	%	0.010	Toxic for reproduction (Article 57c)
104	Lead oxide sulfate (basic lead sulfate)*	12036-76-9	234-853-7	%	0.010	CMR
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)*	69011-06-9	273-688-5	%	0.010	CMR
106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	%	0.010	CMR
107	Fatty acids, C16-18, lead salts*	91031-62-8	292-966-7	%	0.010	CMR
108	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	%	0.010	CMR
109	Lead cynamidate*	20837-86-9	244-073-9	%	0.010	CMR
110	Lead dinitrate*	10099-74-8	233-245-9	%	0.010	CMR
111	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	%	0.010	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
112	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	%	0.010	CMR
113	Lead titanium trioxide*	12060-00-3	235-038-9	%	0.010	CMR
114	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	%	0.010	CMR
115	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	%	0.010	CMR
116	Pyrochlore, antimony lead yellow*	8012-00-8	232-382-1	%	0.010	Toxic for reproduction (Article 57c)
117	Silicic acid (H2Si2O5), 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] *	68784-75-8	272-271-5	%	0.010	Toxic for reproduction (Article 57c)
118	Silicic acid, lead salt*	11120-22-2	234-363-3	%	0.010	Toxic for reproduction (Article 57c)
119	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	%	0.010	Toxic for reproduction (Article 57c)
120	Tetraethyllead*	78-00-2	201-075-4	%	0.010	Toxic for reproduction (Article 57c)
121	Tetralead trioxide sulphate*	12202-17-4	235-380-9	%	0.010	Toxic for reproduction (Article 57c)
122	Trilead dioxide phosphonate*	12141-20-7	235-252-2	%	0.010	Toxic for reproduction (Article 57c)
123	Furan	110-00-9	203-727-3	%	0.010	CMR
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	%	0.010	CMR
125	Diethyl sulfate	64-67-5	200-589-6	%	0.010	CMR
126	Dimethyl sulfate	77-78-1	201-058-1	%	0.010	CMR
127	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	421-150-7	%	0.010	CMR
128	Dinoseb	88-85-7	201-861-7	%	0.010	CMR
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	%	0.010	CMR
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	%	0.010	CMR

No.	Item	CAS No.	EC No.	Unit	RL	Category
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6	%	0.010	CMR
132	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7	202-453-1	%	0.010	CMR
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	%	0.010	CMR
134	Biphenyl-4-ylamine	92-67-1	202-177-1	%	0.010	CMR
135	o-aminoazotoluene	97-56-3	202-591-2	%	0.010	CMR
136	o -Toluidine	95-53-4	202-429-0	%	0.010	CMR
137	N-Methylacetamide	79-16-3	201-182-6	%	0.010	CMR
138	1-bromopropane; n-propyl bromide	106-94-5	203-445-0	%	0.010	CMR
139	Cadmium(Cd)	7440-43-9	231-152-8	%	0.001	Carcinogenic (Article 57a)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
140	Cadmium oxide*	1306-19-0	215-146-2	%	0.010	Carcinogenic (Article 57a)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
141	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1	223-320-4	%	0.010	Toxic for reproduction (Article 57c)/PBT(Article 57d)
142	Pentadecafluorooctanoic acid (PFOA)	335-67-1	206-397-9	%	0.010	Toxic for reproduction (Article 57c)/PBT(Article 57d)
143	Dipentyl phthalate(DPP)	131-18-0	205-017-9	%	0.005	Toxic for reproduction (Article 57c)
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]	---	---	%	0.010	Endocrine disrupting properties (Article 57 (f)-environment)
145	Cadmium sulphide*	1306-23-6	215-147-8	%	0.010	Carcinogenic (Article 57a)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)

No.	Item	CAS No.	EC No.	Unit	RL	Category
146	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	%	0.010	Carcinogenic(Article 57a)
147	Dihexyl phthalate	84-75-3	201-559-5	%	0.005	Toxic for reproduction (Article 57c)
148	Imidazolidine-2-thione(2-imidazoline-2-thiol)	96-45-7	202-506-9	%	0.010	Toxic for reproduction (Article 57c)
149	Trixylyl phosphate(TXP)	25155-23-1	246-677-8	%	0.010	Toxic for reproduction (Article 57c)
150	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	%	0.010	Carcinogenic(Article 57a)
151	Lead di(acetate)*	301-04-2	206-104-4	%	0.010	Toxic for reproduction (Article 57c)
152	Sodium peroxometaborate*	7632-04-4	231-556-4	%	0.010	Toxic for reproduction (Article 57c)
153	Cadmium chloride*	10108-64-2	233-296-7	%	0.010	Carcinogenic (Article 57a)/Mutagenic (Article 57b)/Toxic for reproduction (Article 57c)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
154	1,2-Benzenedicarboxylic Acid, dihexyl ester, branched and linear(DHxP)	68515-50-4	271-093-5	%	0.005	Toxic for reproduction (Article 57c)
155	Sodium perborate; perboric acid, sodium salt*	---	---	%	0.010	Toxic for reproduction (Article 57c)
156	Cadmium fluoride*	7790-79-6	232-222-0	%	0.010	Carcinogenic (Article 57a)/Mutagenic (Article 57b)/Toxic for reproduction (Article 57c)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
157	Cadmium sulphate*	10124-36-4; 31119-53-6	233-331-6	%	0.010	Carcinogenic (Article 57a)/Mutagenic (Article 57b)/Toxic for reproduction (Article 57c)/Specific target organ toxicity after repeated exposure (Article 57(f) - human health)

No.	Item	CAS No.	EC No.	Unit	RL	Category
158	2-benzotriazol-2-yl-4, 6-di-tert-butylphenol(UV-320)	3846-71-7	223-346-6	%	0.010	PBT (Article 57d)/vPvB (Article 57e)
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol(UV-328)	25973-55-1	247-384-8	%	0.010	PBT (Article 57d)/vPvB (Article 57e)
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate(DOTE)	15571-58-1	239-622-4	%	0.010	Toxic for reproduction (Article 57c)
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)	---	---	%	0.010	Toxic for reproduction (Article 57 c)
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(EC No. 201-559-5)	---	---	%	0.005	Toxic for reproduction (Article 57 c)
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 stereoisomers of [1] and [2] or any combination thereof]	---	---	%	0.010	vPvB(Article 57e)
164	Nitrobenzene	98-95-3	202-716-0	%	0.010	Toxic for reproduction (Article 57 c)
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	%	0.010	vPvB (Article 57 e)
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol(UV-350)	36437-37-3	253-037-1	%	0.010	vPvB (Article 57 e)
167	1,3-Propanesultone	1120-71-4	214-317-9	%	0.010	Carcinogenic(Article 57 a)
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	---	---	%	0.010	Toxic for reproduction (Article 57 c) /PBT (Article 57 d)

No.	Item	CAS No.	EC No.	Unit	RL	Category
169	Benzo[a]pyrene(BaP)	50-32-8	200-028-5	%	0.010	Carcinogenic (Article 57 a) /Mutagenic (Article 57 b) /Toxic for reproduction (Article 57 c) /PBT (Article 57 d)/ vPvB (Article 57 e)
170	p-(1,1-dimethylpropyl)phenol (PTAP)	80-46-6	201-280-9	%	0.010	Endocrine disrupting properties (Article 57(f) - environment)
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	---	---	%	0.010	Toxic for reproduction (Article 57c) PBT (Article 57d)
172	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]	---	---	%	0.010	Endocrine disrupting properties (Article 57(f) - environment)
173	4,4′ -isopropylidenediphenol (bisphenol A)(BPA)	80-05-7	201-245-8	%	0.010	Toxic for reproduction (Article 57c) /Endocrine disrupting properties (Article 57(f) - environment) /Endocrine disrupting properties (Article 57 (f) - human health)
174	Perfluorohexane-1-sulphonic acid and its salts(PFHxS)	---	---	%	0.010	vPvB (Article 57e)
175	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 (4-HPbl)	---	---	%	0.010	Endocrine disrupting properties (Article 57(f) – environment)
176	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo [12.2.1.1 , .0²,¹³.0⁵,¹]octadeca 7,15-diene (“Dechlorane Plus” ™)covering any of its individual anti- and syn-isomers or any combination thereof	---	---	%	0.010	vPvB (Article 57 e)
177	Chrysene(CHR)	218-01-9	205-923-4	%	0.010	Carcinogenic (Article 57 a) PBT (Article 57 d) vPvB (Article 57 e)

No.	Item	CAS No.	EC No.	Unit	RL	Category
178	Cadmium nitrate*	10325-94-7	233-710-6	%	0.010	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
179	Cadmium hydroxide*	21041-95-2	244-168-5	%	0.010	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
180	Cadmium carbonate*	513-78-0	208-168-9	%	0.010	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
181	Benzo[a]anthracene(BaA)	56-55-3	200-280-6	%	0.010	Carcinogenic (Article 57 a) PBT (Article 57 d) vPvB (Article 57 e)
182	Terphenyl, hydrogenated	61788-32-7	262-967-7	%	0.010	vPvB (Article 57 e)
183	Octamethylcyclotetrasiloxane (D4)	556-67-2	209-136-7	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)
184	Lead(Pb)	7439-92-1	231-100-4	%	0.001	Toxic for reproduction (Article 57 c)
185	Ethylenediamine(EDA)	107-15-3	203-468-6	%	0.010	Respiratory sensitising properties (Article 57 (f)-human health)
186	Dodecamethylcyclohexasiloxane(D6)	540-97-6	208-762-8	%	0.010	PBT (Article 57 d);vPvB (Article 57 e)
187	Disodium octaborate	12008-41-2	234-541-0	%	0.010	Toxic for reproduction (Article 57c)
188	Dicyclohexyl Phthalate(DCHP)	84-61-7	201-545-9	%	0.005	Toxic for reproduction (Article 57 c) Endocrine disrupting properties (Article 57(f)-human health)
189	Decamethylcyclopentasiloxane (D5)	541-02-6	208-764-9	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)
190	Benzo[g,h,i]perylene (BPE)	191-24-2	205-883-8	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)
191	Benzene-1,2,4-tricarboxylic acid 1,2-anhydride(trimellitic anhydride)(TMA)	552-30-7	209-008-0	%	0.010	Respiratory sensitising properties (Article 57 (f)-human health)
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	401-720-1	%	0.010	Toxic for reproduction (Article 57 c)
193	Benzo[k]fluoranthene (BkFA)	207-08-9	205-916-6	%	0.010	Carcinogenic(Article 57 a)PBT (Article 57 d)vPvB(Article 57 e)
194	Fluoranthene (FLT)	206-44-0	205-912-4	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)

No.	Item	CAS No.	EC No.	Unit	RL	Category
195	Phenanthrene (PHE)	85-01-8	201-581-5	%	0.010	vPvB (Article 57 e)
196	Pyrene (PYR)	129-00-0	204-927-3	%	0.010	PBT (Article 57 d) vPvB (Article 57 e)
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo [2.2.1]heptan-2-one(3-benzylidene camphor)(3-BC)	15087-24-8	239-139-9	%	0.010	Endocrine disrupting properties (Article 57 (f)-environment)
198	2-Methoxyethyl Acetate	110-49-6	203-772-9	%	0.010	Toxic for reproduction (Article 57c)
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP)	--	--	%	0.010	Endocrine disrupting properties (Article 57(f) - environment)
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)	---	---	%	0.010	Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment) Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health)
201	4-tert-Butylphenol(PTBP/BP)	98-54-4	202-679-0	%	0.010	Endocrine disrupting properties (Article 57(f) – environment)
202	Diisohexyl phthalate(DIHxP)	71850-09-4	276-090-2	%	0.005	Toxic for reproduction (Article 57c)
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	404-360-3	%	0.010	Toxic for reproduction (Article 57c)
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	400-600-6	%	0.010	Toxic for reproduction (Article 57c)
205	Perfluorobutane sulfonic acid (PFBS) and its salts(PFBS)	--	--	%	0.010	Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment) Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health)
206	1-Vinylimidazole	1072-63-5	214-012-0	%	0.010	Toxic for reproduction (Article 57c)
207	2-Methylimidazole	693-98-1	211-765-7	%	0.010	Toxic for reproduction (Article 57c)
208	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	245-152-0	%	0.010	Toxic for reproduction (Article 57c)
209	Butyl 4-hydroxybenzoate (Butylparaben)	94-26-8	202-318-7	%	0.010	Endocrine disrupting properties - human health (Article 57(f) – human health)
210	Bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	205-594-7	%	0.010	Toxic for reproduction (Article 57c)

No.	Item	CAS No.	EC No.	Unit	RL	Category
211	Dioctyltin dilaurate,stannane,dioctyl-,bis (cocoacyloxy)derivs.,and any other stannane,dioctyl-,bis (fatty acyloxy)derivs.wherein C12 is the predominant carbon number of the fatty cayloxy moiety	--	--	%	0.010	Toxic for reproduction (Article 57c)
212	Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	--	--	%	0.010	Toxic for reproduction (Article 57c) Endocrine disrupting properties (Article 57(f) - environment) Endocrine disrupting properties (Article 57(f) - human health)
213	orthoboric acid, sodium salt	--	--	%	0.010	Toxic for reproduction (Article 57c)
214	Medium-chain chlorinated paraffins (UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17) (MCCP)	--	--	%	0.009	PBT (Article 57d) vPvB (Article 57e)
215	Glutaral	111-30-8	203-856-5	%	0.010	Respiratory sensitising properties (Article 57(f) - human health)
216	4,4'-(1-methylpropylidene) bisphenol	77-40-7	201-025-1	%	0.010	Endocrine disrupting properties (Article 57(f) - environment) Endocrine disrupting properties (Article 57(f) - human health)
217	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	--	--	%	0.010	Toxic for reproduction (Article 57c)
218	2,2-bis(bromomethyl)propane-1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis (bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0/36483-57-5/1522-92-5/96-13-9	221-967-7/253-057-0/202-480-9	%	0.010	Carcinogenic (Article 57a)

No.	Item	CAS No.	EC No.	Unit	RL	Category
219	1,4-dioxane	123-91-1	204-661-8	%	0.010	Carcinogenic (Article 57a) Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health) Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment)
220	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol(DBMC)	119-47-1	204-327-1	%	0.010	Toxic for reproduction(Article 57 c)
221	tris(2-methoxyethoxy) vinylsilane	1067-53-4	213-934-0	%	0.010	Toxic for reproduction(Article 57 c)
222	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene] bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof(4-MBC)	--	--	%	0.010	Endocrine disrupting properties (Article 57(f) - human health)
223	S-(tricyclo[5.2.1.0'2,6]deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	401-850-9	%	0.010	PBT (Article 57 d)
224	N-(hydroxymethyl)acrylamide	924-42-5	213-103-2	%	0.010	Carcinogenic (Article 57a) Mutagenic (Article 57b)
225	reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl) morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine	--	473-390-7	%	0.010	vPvB (Article 57e)
226	Perfluoroheptanoic acid and its salts	--	--	%	0.010	Toxic for reproduction (Article 57c); PBT (Article 57d); vPvB (Article 57e); Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health); Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment)

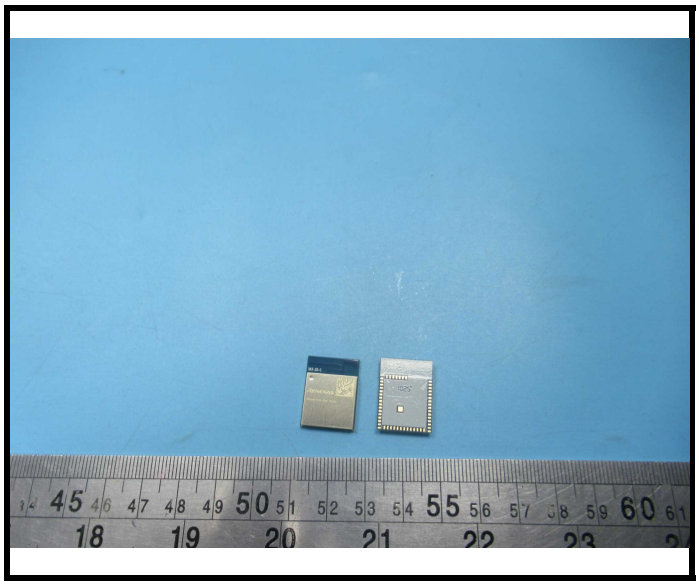
No.	Item	CAS No.	EC No.	Unit	RL	Category
227	Melamine	108-78-1	203-615-4	%	0.010	Equivalent level of concern having probable serious effects to human health (Article 57(f) - human health); Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment)
228	Isobutyl 4-hydroxybenzoate	4247-02-3	224-208-8	%	0.010	Endocrine disrupting properties (Article 57(f) – human health)
229	Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof	--	--	%	0.010	vPvB (Article 57e)
230	Barium diboron tetraoxide	13701-59-2	237-222-4	%	0.010	Toxic for reproduction (Article 57c)
231	4,4'-sulphonyldiphenol	80-09-1	201-250-5	%	0.010	Toxic for reproduction (Article 57c); Endocrine disrupting properties (Article 57(f) – environment); Endocrine disrupting properties (Article 57 (f) – human health)
232	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (TBBPA)	79-94-7	201-236-9	%	0.010	Carcinogenic (Article 57a)
233	1,1'-[ethane-1,2-diylbisoxy]bis [2,4,6-tribromobenzene]	37853-59-1	253-692-3	%	0.010	vPvB (Article 57e)
234	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide(TPO)	75980-60-8	278-355-8	%	0.010	Toxic for reproduction (Article 57c)
235	Bis(4-chlorophenyl) sulphone	80-07-9	201-247-9	%	0.010	vPvB (Article 57e)
236	2,4,6-tri-tert-butylphenol(2,4,6-TTBP)	732-26-3	211-989-5	%	0.010	Toxic for reproduction (Article 57c) PBT (Article 57d)
237	2-(2H-BENZOTRIAZOL-2-YL)-4-(1,1,3,3-TETRAMETHYLBUTYL) PHENOL(UV-329)	3147-75-9	221-573-5	%	0.010	vPvB (Article 57e)
238	2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one(PI379)	119344-86-4	438-340-0	%	0.010	Toxic for reproduction (Article 57c)
239	Bumetrizole(UV-326)	3896-11-5	223-445-4	%	0.010	vPvB (Article 57e)
240	Oligomeristion and alkylation reaction products of 2-phenylpropene and phenol	--	700-960-7	%	0.010	vPvB (Article 57e)

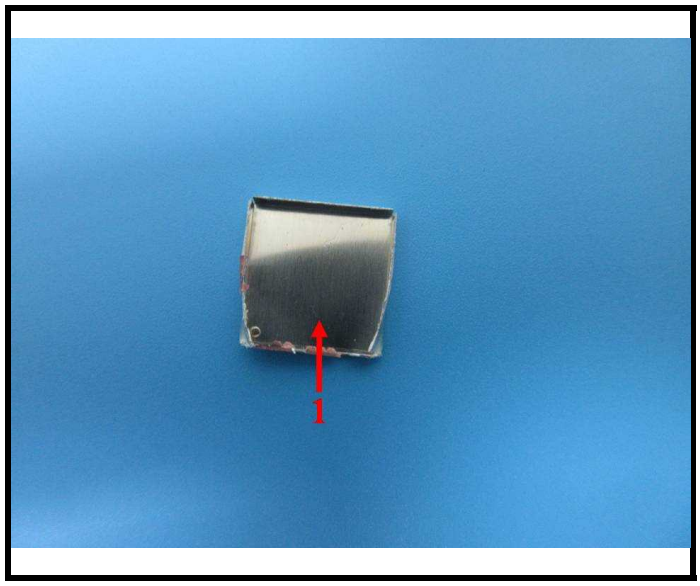
No.	Item	CAS No.	EC No.	Unit	RL	Category
241	Bis(α,α-dimethylbenzyl) peroxide	80-43-3	201-279-3	%	0.010	Toxic for reproduction (Article 57c)
242	Triphenyl phosphate(TPP)	115-86-6	204-112-2	%	0.010	Endocrine disrupting properties (Article 57(f) - environment)
243	Octamethyltrisiloxane	107-51-7	203-497-4	%	0.010	vPvB (Article 57e)
244	O,O,O-triphenyl phosphorothioate	597-82-0	209-909-9	%	0.010	PBT (Article 57d)
245	reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives	192268-65-8	421-820-9	%	0.010	PBT (Article 57d)
246	Perfluamine	338-83-0	206-420-2	%	0.010	vPvB (Article 57e)
247	6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid	2156592-54-8	701-118-1	%	0.010	Toxic for reproduction (Article 57c)
248	tetra(sodium/potassium) 7-[(E)-{2-acetamido-4-[(E)-(4-{[4-chloro-6-({2-[(4-fluoro-6-{[4-(vinylsulfonyl)phenyl]amino}-1,3,5-triazine-2-yl)amino] propyl}amino)-1,3,5-triazine-2-yl]amino}-5-sulfonato-1-naphthyl)diazenyl]-5-methoxyphenyl}diazenyl]-1,3,6-naphthalenetrisulfonate (Reactive Brown 51)	---	466-490-7	%	0.010	Toxic for reproduction (Article 57c)
249	Decamethyltetrasiloxane	141-62-8	205-491-7	%	0.010	vPvB (Article 57e)
250	1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy]trisiloxane (DK127)	17928-28-8	241-867-7	%	0.010	vPvB (Article 57e)

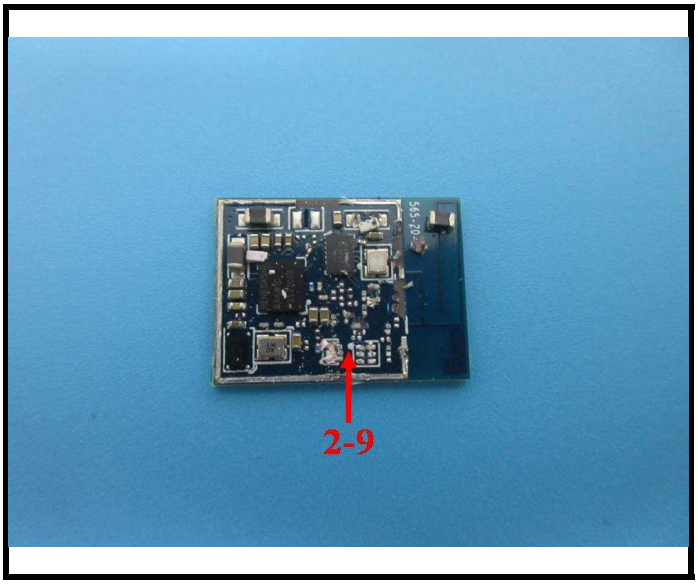
Note:
- N.D. = Not Detected or less than RL
- RL = Report Limit
- % = Percentage by weight
- 0.1% = 1000mg/kg, mg/kg = ppm
- "+" = According to the applicant's request, the sample is mixed and tested, andthe test result is the mixed test value, because the whole mixed test sample is regarded as a homogeneous material. If the test sample is not a homogeneous material, there will be differences in the test results, and the applicant shall undertake all differences and risk.
- * = Calculated concentration of Cobalt Dichloride(CoCl2) is based on the identified heavy metal and anion result. Calculated concentration of Diarsenic Pentaoxide(As2O5), Diarsenic Trioxide(As2O3), Sodium Dichromate, Dihydrate, Lead Hydrogen Arsenate and Triethyl Arsenate, Disodium tetraborate, anhydrous , Tetraboron disodium heptaoxide, hydrate, Sodium chromate , Potassium chromate, Ammonium dichromate, Potassium dichromate, Cobalt(II) sulfate, Cobalt(II) dinitrate, Cobalt(II) carbonate, Cobalt(II) diacetate, Chromium trioxide, Chromic acid, Dichromic acid, Oligomers of chromicacid and dichromic acid, strontium chromate, Calcium arsenate, Potassium hydroxyoctaoxodizincatedi-chromate, Lead dipicrate, Arsenic acid, Trilead diarsenate, Lead diazide, Lead azide, Lead styphnate, Dichromium tris(chromate), Diboron trioxide, Lead(II) bis(methanesulfonate), Acetic acid, lead salt, basic, Basic lead carbonate (trilead bis(carbonate)dihydroxide), Lead oxide sulfate (basic leadsulfate), [Phthalato(2-)]dioxotrilead (dibasic lead phthalate), Dioxobis(stearato)trilead, Fatty acids, C16-18, lead salts,Lead bis(tetrafluoroborate), Lead cynamidate, Lead dinitrate, Lead oxide (lead monoxide), Lead tetroxide (orange lead),Lead titanium trioxide, Lead Titanium Zirconium Oxide, Pentalead tetraoxide sulphate, Pyrochlore, antimony lead yellow C.I., Silicic acid (H2Si2O5), 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], Silicic acid, lead salt, Sulfurous acid, lead salt, dibasic, Tetraethyllead, Tetralead trioxide sulphate, Trilead dioxide phosphonate, Cadmium oxide, Cadmium sulphide, Lead di(acetate), Sodium peroxometaborate, Cadmium chloride, Sodium perborate; perboric acid, sodium salt, Cadmium fluoride, Cadmium sulphate, Cadmium nitrate, Cadmium hydroxide,Cadmium carbonate are based on the identified heavy metal result. Identity of above metal substances present in the article has to be further confirmed.
- ** = Calculated concentration of bis(tributyltin)oxide TBTO is based on the identified tributyltin, TBT results. The result is a screening test of TBTO and can cover TBTO and other salts under current technologies. Further investigation is required if the exact amount of TBTO has to be determined.
- *** = Calculated concentration of these coal-tar products is based on the identified polycyclic aromatic hydrocarbons (PAHs) and. heterocyclic compounds
- **** = Calculated concentration of these Aluminosilicate, Zirconia Aluminosilicate, Zirconia Aluminosilicate Refractory Ceramic Fibres, Aluminosilicate Refractory Ceramic Fibres is based on the identified aluminum and zirconium results by ICP-OES
- ***** = The substance does only fulfil the criteria of REACH Art. 57 (a) if it contains Michler's ketone (EC Number:202-027-5) or Michler's base (EC Number: 202-959-2) in a concentration ≥ 0.1% (weight / weight).
- Carcinogenic, Mutagenic or toxic to Reproduction (CMR), meeting the criteria for classification in category 1 or 2 in accordance with Directive 67/548/EEC, Persistent, Bioaccumulative and Toxic (PBT) or very Persistent and very Bioaccumulative (vPvB) according to the criteria in Annex of XIII of the REACH Regulation, and/or Identified, on a case-by-case basis, from scientific evidence as causing probable serious effects to human health or the environment of an equivalent level of concern as those above (e.g. endocrine disrupters)
- The chemical analysis of specified SVHC is performed by means of currently available analytical techniques against the list published by ECHA:
https://echa.europa.eu/candidate-list-table
- If a SVHC is found over the reporting limit, client is suggested to identify the component which contains the SVHC and the exact concentration of the SVHC by requesting further quantitative analysis from the laboratory

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Photograph of Sample







BACL authenticate the photo on original report only

Statement:

1.This report cannot be reproduced except in full, without prior written approval of the Company.
2.Unless otherwise stated the results shown in this test report refer only to the sample(s) tested and such sample(s) are retained for 30 days only.
3.This report is valid only with a valid digital signature. The digital signature may be available only under the Adobe software above version 7.0.
4.Otherwise required by the applicant or Product Regulations, Decision Rule in this report did not consider the uncertainty.
5.The information which provided by the applicant, such as sample description, sample name, material component, style/item No. , P.O. No. , manufacturer, age phase, the laboratory is not responsible for its authenticity and this information can affect the validity of the result in the test report.
6.The test samples were in good condition before testing.

*** End of Report ***