

REPORT No.: R2SH180725F0505E Date: August 31, 2018 Page 1 of 25

Shanghai SIMCom Wireless Solutions Ltd SIM Technology Building, No. 633, Jinzhong Road, Changning District, Shanghai, P.R. China

Report on the submitted samples said to be:

Sample Name : LTE MODULE Style/Item No. : SIM7600JC-H

Brand : SIMCom

: July 25, 2018 Sample Receiving Date

Testing Period : From July 25, 2018 to August 7, 2018

: Please refer to next page(s). Results

Summary of Test Results:

TEST REQUEST Summary

One hundred and ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH

See Remark

Remark: According to the specified scope and analytical technique, concentrations of all 191 SVHC are <0.1% in the submitted sample(s)

Signed for and on behalf of BACL

Checked by:

Technical Supervisor

Approved by:

William Wei

Laboratory Manager

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Results:

<u>Tested part(s):</u> The tested parts of submitted sample are as following:

Item	No.	Test Part(s)
(1) Nonmetal(SIM7600JC-H)	1	White adhesive plastic with black printing(label, shield, PCB, NB loT Module)
(2) Metal (SIM7600JC-H)	1	Silvery metal(shield, PCB, NB loT Module)
(3) PCB(SIM7600JC-H)	1	Green PCB with EC and solder(PCB, NB IoT Module)

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A. One hundred and ninety one (191) substances in the Candidate List of Substances of Very High Concern (SVHC) for authorization published by European Chemicals Agency (ECHA) on and before June 27, 2018 regarding Regulation (EC) No 1907/2006 concerning the REACH

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

The tested specimen was prepared as below admixture based on the similar materials principle, the content of SVHC in Sample component as following:

Comple component	Toot mort(o)	Substances
Sample component	Test part(s)	Result
	(1)	N.D. (individual)
SIM7600JC-H	(2)	N.D. (individual)
	(3)	N.D. (individual)

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List of Substances:

No.	Items	CAS No.	EC No.	Unit	MDL	Category
1	Anthracene(ANT)	120-12-7	204-371-1	%	0.001	PBT
2	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	202-974-4	%	0.001	CMR
3	Dibutyl Phthalate(DBP)	84-74-2	201-557-4	%	0.003	CMR
4	Cobalt Dichloride(CoCl ₂)*	7646-79-9	231-589-4	%	0.010	CMR
5	Diarsenic Pentaoxide(As ₂ O ₅)*	1303-28-2	215-116-9	%	0.002	CMR
6	Diarsenic Trioxide(As ₂ O ₃)*	1327-53-3	215-481-4	%	0.002	CMR
7	Sodium Dichromate, Dihydrate*	7789-12-0, 10588-01-9	234-190-3	%	0.004	CMR
8	5-tert-butyl-2,4,6-trinitro-m- xylene(musk xylene)	81-15-2	201-329-4	%	0.003	vPvB
9	Bis-(2-ethyl(hexyl) Phthalate (DEHP)	117-81-7	204-211-0	%	0.003	CMR
10	Hexabromocyclododecane (HBCDD)	25637-99-4 & 3194-55-6 (134237-51-7,1 34237-50-6,13 4237-52-8)	247-148-4, 221-695-9	%	0.005	PBT
11	Alkanes, C10-13, chloro(Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	287-476-5	%	0.010	PBT
12	Bis(tributyltin)oxide(TBTO)**	56-35-9	200-268-0	%	0.003	PBT
13	Lead Hydrogen Arsenate*	7784-40-9	232-064-2	%	0.005	CMR
14	Benzyl Butyl Phthalate(BBP)	85-68-7	201-622-7	%	0.003	CMR
15	Triethyl Arsenate*	15606-95-8	427-700-2	%	0.003	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
16	Anthracene oil***	90640-80-5	292-602-7	%	0.005	PBT
17	Anthracene oil , anthracene paste, distn . Lights***	91995-17-4	295-278-5	%	0.005	PBT
18	Anthracene oil, anthracene paste, anthracene fraction***	91995-15-2	295-275-9	%	0.005	PBT
19	Anthracene oil, anthracene-low***	90640-82-7	292-604-8	%	0.005	PBT
20	Anthracene oil, anthracene paste***	90640-81-6	292-603-2	%	0.003	РВТ
21	Diisobutyl phthalate	84-69-5	201-553-2	%	0.003	CMR
22	2,4-Dinitrotoluene	121-14-2	204-450-0	%	0.003	CMR
23	coal tar pitch, high temperature***	65996-93-2	266-028-2	%	0.005	PBT
24	tris(2-chloroethyl)phosphate	115-96-8	204-118-5	%	0.005	CMR
25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	215-693-7	%	0.005	CMR
26	Lead chromate molybdate sulfate red (C.I. Pigment Red 104)	12656-85-8	235-759-9	%	0.005	CMR
27	Lead chromate: chrome yellow	7758-97-6	231-846-0	%	0.005	CMR
28	Acrylamide	79-06-1	201-173-7	%	0.001	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
29	Trichloroethylene	79-01-6	201-167-4	%	0.003	CMR
30	Boric acid	10043-35-3; 11113-50-1	233-139-2; 234-343-4	%	0.005	CMR
31	Disodium tetraborate, anhydrous*	1330-43-4; 12179-04-3; 1303-96-4	215-540-4	%	0.005	CMR
32	Tetraboron disodium heptaoxide, hydrate*	12267-73-1	235-541-3	%	0.005	CMR
33	Sodium chromate*	7775-11-3	231-889-5	%	0.005	CMR
34	Potassium chromate*	7789-00-6	232-140-5	%	0.005	CMR
35	Ammonium dichromate*	7789-09-5	232-143-1	%	0.005	CMR
36	Potassium dichromate *	7778-50-9	231-906-6	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
37	Cobalt(II) sulfate*	10124-43-3	233-334-2	%	0.005	CMR
38	Cobalt(II) dinitrate*	10141-05-6	233-402-1	%	0.005	CMR
39	Cobalt(II) carbonate*	513-79-1	208-169-4	%	0.005	CMR
40	Cobalt(II) diacetate*	71-48-7	200-755-8	%	0.005	CMR
41	2-Methoxyethanol	109-86-4	203-713-7	%	0.005	CMR
42	2-Ethoxyethanol	110-80-5	203-804-1	%	0.005	CMR
43	Chromium trioxide*	1333-82-0	215-607-8	%	0.005	CMR
44	Chromic acid, Dichromic acid, Oligomers of chromicacid and dichromic acid*	7738-94-5 13530-68-2	231-801-5 236-881-5	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
45	2-ethoxyethylacetate	111-15-9	203-839-2	%	0.005	CMR
46	strontium chromate*	7789-06-2	232-142-6	%	0.005	CMR
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	%	0.005	CMR
49	1-Methyl-2-pyrrolidinone	872-50-4	212-828-1	%	0.005	CMR
50	1,2,3-trichloropropane	96-18-4	202-486-1	%	0.005	CMR
51	1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP).	71888-89-6	276-158-1	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
52	Zirconia Aluminosilicate Refractory Ceramic Fibres****	1	1	%	0.005	CMR
53	Calcium arsenate*	7778-44-1	231-904-5	%	0.005	CMR
54	Bis(2-methoxyethyl) ether	111-96-6	203-924-4	%	0.005	CMR
55	Aluminosilicate Refractory Ceramic Fibres****	1	1	%	0.005	CMR
56	Potassium hydroxyoctaoxodizincatedichro mate*	11103-86-9	234-329-8	%	0.005	CMR
57	Lead dipicrate,	6477-64-1	229-335-2	%	0.005	CMR
58	N,N-dimethylacetamide	127-19-5	204-826-4	%	0.005	CMR
59	Arsenic acid	7778-39-4	231-901-9	%	0.005	CMR
60	2-Methoxyaniline; o-Anisidine	90-04-0	201-963-1	%	0.005	CMR
61	Trilead diarsenate*	3687-31-8	222-979-5	%	0.005	CMR
62	1,2-dichloroethane	107-06-2	203-458-1	%	0.005	CMR
63	Pentazinc chromate octahydroxide	49663-84-5	256-418-0	%	0.005	CMR
64	4-(1,1,3,3-tetramethylbutyl) phenol	140-66-9	205-426-2	%	0.005	Equivalent level of concern having probable serious effects to the environment
65	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	500-036-1	%	0.005	CMR
66	Bis(2-methoxyethyl) phthalate	117-82-8	204-212-6	%	0.005	CMR
67	Lead diazide, Lead azide*	13424-46-9	236-542-1	%	0.005	CMR
68	Lead styphnate*	15245-44-0	239-290-0	%	0.005	CMR
69	2,2'-dichloro-4,4'-methylenedia niline	101-14-4	202-918-9	%	0.005	CMR
70	Phenolphthalein	77-09-8	201-004-7	%	0.005	CMR
71	Dichromium tris(chromate)*	24613-89-6	246-356-2	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
72	1,2-bis(2-methoxyethoxy)ethan e (TEGDME; triglyme)	112-49-2	203-977-3	%	0.005	CMR
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	203-794-9	%	0.005	CMR
74	Diboron trioxide*	1303-86-2	215-125-8	%	0.005	CMR
75	Formamide	75-12-7	200-842-0	%	0.005	CMR
76	Lead(II) bis(methanesulfonate)*	17570-76-2	401-750-5	%	0.005	CMR
77	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5 -triazine-2,4,6(1H,3H,5H)-trion e)	2451-62-9	219-514-3	%	0.005	CMR
78	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-tria zine-2,4,6-(1H,3H,5H)-trione)	59653-74-6	423-400-0	%	0.005	CMR
79	4,4'-bis(dimethylamino)benzop henone (Michler's ketone	90-94-8	202-027-5	%	0.005	CMR
80	N,N,N',N'-tetramethyl-4,4'-meth ylenedianiline (Michler's base)	101-61-1	202-959-2	%	0.005	CMR
81	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5 -dien-1-ylidene]dimethylammo nium chloride (C.I. Basic Violet 3)	548-62-9	208-953-6	%	0.005	CMR
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	%	0.005	CMR
83	α,α-Bis[4-(dimethylamino)phen yl]-4 (phenylamino)naphthalene-1 -methanol(C.I. Solvent Blue 4)	6786-83-0	229-851-8	%	0.005	CMR
84	4,4'-bis(dimethylamino)-4"-(me thylamino)trityl alcohol	561-41-1	209-218-2	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
85	Bis(pentabromophenyl) ether	1163-19-5	214-604-9	%	0.005	PBT
86	Pentacosafluorotridecanoic acid	72629-94-8	276-745-2	%	0.005	vPvB
87	Tricosafluorododecanoic acid	307-55-1	206-203-2	%	0.005	vPvB
88	Henicosafluoroundecanoic acid	2058-94-8	218-165-4	%	0.005	vPvB
89	Heptacosafluorotetradecanoic acid	376-06-7	206-803-4	%	0.005	vPvB
90	4-(1,1,3,3-tetramethylbutyl)phe nol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues	1	,	%	0.005	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	1	1	%	0.005	Equivalent level of concern having probable serious effects to the environment
92	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	123-77-3	204-650-8	%	0.005	Equivalent level of concern having probable serious effects to the environment

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
93	Cyclohexane-1,2-dicarboxyli c anhydride [1] cis-cyclohexane-1,2-dicarbo xylic anhydride [2] trans-cyclohexane-1,2-dicarb oxylic 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	%	0.005	Equivalent level of concern having probable serious effects to the environment
94	Hexahydromethylphathalic anhydride, Hexahydro-4-methylphathali c anhydride, Hexahydro-1-methylphathali c anhydride, Hexahydro-3-methylphathali c 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	%	0.005	Equivalent level of concern having probable serious effects to the environment
95	Methoxy acetic acid	625-45-6	210-894-6	%	0.005	CMR
96	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	284-032-2	%	0.005	CMR
97	Diisopentylphthalate (DIPP)	605-50-5	210-088-4	%	0.005	CMR
98	N-pentyl-isopentylphtalate	776297-69-9	1	%	0.005	CMR
99	1,2-Diethoxyethane	629-14-1	211-076-1	%	0.005	CMR
100	N,N-dimethylformamide; dimethyl formamideN,N	68-12-2	200-679-5	%	0.005	CMR
101	Dibutyltin dichloride (DBT)	683-18-1	211-670-0	%	0.005	CMR
102	Acetic acid, lead salt, basic*	51404-69-4	257-175-3	%	0.005	CMR
103	Basic lead carbonate (trilead bis(carbonate)dihydroxide)*	1319-46-6	215-290-6	%	0.005	CMR
104	Lead oxide sulfate (basic lead sulfate)*	12036-76-9	234-853-7	%	0.005	CMR
105	[Phthalato(2-)]dioxotrilead (dibasic lead phthalate)*	69011-06-9	273-688-5	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
106	Dioxobis(stearato)trilead*	12578-12-0	235-702-8	%	0.005	CMR
107	Fatty acids, C16-18, lead salts *	91031-62-8	292-966-7	%	0.005	CMR
108	Lead bis(tetrafluoroborate)*	13814-96-5	237-486-0	%	0.005	CMR
109	Lead cynamidate*	20837-86-9	244-073-9	%	0.005	CMR
110	Lead dinitrate*	10099-74-8	233-245-9	%	0.005	CMR
111	Lead oxide (lead monoxide)*	1317-36-8	215-267-0	%	0.005	CMR
112	Lead tetroxide (orange lead)*	1314-41-6	215-235-6	%	0.005	CMR
113	Lead titanium trioxide*	12060-00-3	235-038-9	%	0.005	CMR
114	Lead Titanium Zirconium Oxide*	12626-81-2	235-727-4	%	0.005	CMR
115	Pentalead tetraoxide sulphate*	12065-90-6	235-067-7	%	0.005	CMR
116	Pyrochlore, antimony lead yellow C.I.*	8012-00-8	232-382-1	%	0.005	CMR
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	%	0.005	CMR
118	Silicic acid, lead salt*	11120-22-2	234-363-3	%	0.005	CMR
119	Sulfurous acid, lead salt, dibasic*	62229-08-7	263-467-1	%	0.005	CMR
120	Tetraethyllead*	78-00-2	201-075-4	%	0.005	CMR
121	Tetralead trioxide sulphate*	12202-17-4	235-380-9	%	0.005	CMR
122	Trilead dioxide phosphonate*	12141-20-7	235-252-2	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
123	Furan	110-00-9	203-727-3	%	0.005	CMR
124	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9	200-879-2	%	0.005	CMR
125	Diethyl sulphate	64-67-5	200-589-6	%	0.005	CMR
126	Dimethyl sulphate	77-78-1	201-058-1	%	0.005	CMR
127	3-ethyl-2-methyl-2-(3-methyl butyl)-1,3-oxazolidine	143860-04-2	421-150-7	%	0.005	CMR
128	Dinoseb	88-85-7	201-861-7	%	0.005	CMR
129	4,4'-methylenedi-o-toluidine	838-88-0	212-658-8	%	0.005	CMR
130	4,4'-oxydianiline and its salts	101-80-4	202-977-0	%	0.005	CMR
131	4-Aminoazobenzene; 4-Phenylazoaniline	60-09-3	200-453-6	%	0.005	CMR
132	4-methyl-m-phenylenediamin e (2,4-toluene-diamine)	95-80-7	202-453-1	%	0.005	CMR
133	6-methoxy-m-toluidine (p-cresidine)	120-71-8	204-419-1	%	0.005	CMR
134	Biphenyl-4-ylamine	92-67-1	202-177-1	%	0.005	CMR
135	o-aminoazotoluene	97-56-3	202-591-2	%	0.005	CMR
136	o-Toluidine; 2-Aminotoluene	95-53-4	202-429-0	%	0.005	CMR
137	N-methylacetamide	79-16-3	201-182-6	%	0.005	CMR
138	1-bromopropane; n-propyl bromide	106-94-5	203-445-0	%	0.005	CMR

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
139	Cadmium	7440-43-9	231-152-8	%	0.001	CMR
140	Cadmium oxide *	1306-19-0	215-146-2	%	0.005	CMR
141	Ammonium pentadecafluorooctanoate(AP FO)	3825-26-1	223-320-4	%	0.005	PBT
142	Pentadecafluorooctanoic acid(PFOA)	335-67-1	206-397-9	%	0.005	PBT
143	Dipentyl phthalate(DPP)	131-18-0	205-017-9	%	0.005	РВТ
144	4-Nonylphenol, branched and linear,ethoxylated [substances with alinear and/or branched alkyl chain witha carbon number of 9 covalentlybound in position 4 to phenol,ethoxylated covering UVCB- and well-defined substances, polymers andhomologues, which include any of theindividual isomers and/orcombinations thereof]			%	0.005	Equivalent level of concern having probable serious effects to the environment

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
145	Cadmium sulphide*	1306-23-6	215-147-8	%	0.005	Equivalent level of concern having probable serious effects to the environment
146	Disodium3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	1937-37-7	217-710-3	%	0.005	CMR
147	Dihexyl phthalate	84-75-3	201-559-5	%	0.005	РВТ
148	Imidazolidine-2-thione(2-imid azoline-2-thiol)	96-45-7	202-506-9	%	0.005	PBT
149	Trixylyl phosphate	25155-23-1	246-677-8	%	0.005	PBT
150	Disodium4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biph enyl]-4-yl]azo]-5-hydroxy-6-(p henylazo)naphthalene-2,7-dis ulphonate (C.I. Direct Black 38)	573-58-0	209-358-4	%	0.005	CMR
151	Lead di(acetate)*	301-04-2	206-104-4	%	0.005	PBT

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	271-093-5	%	0.005	PBT
153	Sodium perborate; perboric acid, sodium salt*		239-172-9; 234-390-0	%	0.005	PBT
154	Sodium peroxometaborate*	7632-04-4	231-556-4	%	0.005	PBT
155	Cadmium chloride*	10108-64-2	233-296-7	%	0.005	CMR Equivalent level of concern having probable serious effects to the environment

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
NO.	Rems	CAS NO.	LC NO.	Oilit	IVIDE	Category
156	2-benzotriazol-2-yl-4,6-di-tert-b utylphenol (UV-320)	3846-71-7	223-346-6	%	0.005	PBT; vPvB
157	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-ox a-3,5-dithia-4-stannatetradeca noate (DOTE)	15571-58-1	239-622-4	%	0.005	CMR
158	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-ox a-3,5-dithia-4-stannatetradeca noate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)ox y]-2-oxoethyl]thio]-4-octyl-7-ox o-8-oxa-3,5-dithia-4-stannatetr adecanoate (reaction mass of DOTE and MOTE)	-		%	0.005	CMR
159	2-(2H-benzotriazol-2-yl)-4,6-dit ertpentylphenol (UV-328)	25973-55-1	247-384-8	%	0.005	PBT; vPvB
160	Cadmium fluoride*	7790-79-6	232-222-0	%	0.005	CMR Equivalent level of concern having probable serious effects to the environment
161	Cadmium sulphate*	10124-36-4 31119-53-6	233-331-6	%	0.005	CMR Equivalent level of concern having probable serious effects to the environment

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
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)	68515-51-5 68648-93-1	271-094-0 272-013-1	%	0.005	CMR
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]			%	0.005	vPvB

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
164	Nitrobenzene	98-95-3	202-716-0	%	0.005	PBT
165	2,4-di-tert-butyl-6-(5-chlorobenzo triazol-2-yl)phenol (UV-327)	3864-99-1	223-383-8	%	0.005	vPvB
166	2-(2H-benzotriazol-2-yl)-4-(tert-b utyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	253-037-1	%	0.005	vPvB
167	1,3-propanesultone	1120-71-4	214-317-9	%	0.005	CMR
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	206-801-3	%	0.005	PBT
169	Benzo[def]chrysene	50-32-8	200-028-5	%	0.005	CMR vPvB PBT
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	201-245-8	%	0.005	CMR Endocrine disrupting properties (Article 57(f) - human health& environment)
171	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	206-400-3 221-470-5 	%	0.005	CMR PBT

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
172	4-heptylphenol, branched and linear (4-HPbl)			%	0.005	Equivalent level of concern having probable serious effects to the environment
173	p-(1,1-dimethylpropyl)phenol	80-46-6	201-280-9	%	0.005	Equivalent level of concern having probable serious effects to the environment
174	Perfluorohexane-1-sulphonic acid and its salts(PFHxS)			%	0.005	vPvB

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
175	Benz[a]anthracene	56-55-3, 1718-53-2	200-280-6	%	0.005	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)
176	Cadmium carbonate*	513-78-0	208-168-9	%	0.005	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
177	Cadmium hydroxide*	21041-95-2	244-168-5	%	0.005	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
178	Cadmium nitrate*	10022-68-1, 10325-94-7	233-710-6	%	0.005	Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health)
179	Chrysene	218-01-9, 1719-03-5	205-923-4	%	0.005	Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e)
180	Dodecachloropentacyclo[12.2 .1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™)covering any of its individual anti- and syn-isomers or any combination thereof	-	-	%	0.005	vPvB (Article 57e)
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithio ne, formaldehyde and 4-heptylphenol, branched and linear (RP-HP)with ≥0.1% w/w 4-heptylphenol, branched and linear (4-HPbl)	-	-	%	0.005	Endocrine disrupting properties (Article 57(f) - environment)

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No.	Items	CAS No.	EC No.	Unit	MDL	Category
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride trimellitic anhydride; TMA	552-30-7	209-008-0	%	0.005	Respiratory sensitising properties (Article 57(f) - human health)
183	Benzo[ghi]perylene	191-24-2	205-883-8	%	0.005	PBT (Article 57d)
184	Decamethylcyclopentasiloxan e(D5)	541-02-6	208-764-9	%	0.005	vPvB (Article 57e)
185	Dicyclohexyl phthalate (DCHP)	84-61-7	201-545-9	%	0.005	Toxic for reproduction (Article 57c) Endocrine disrupting properties (Article 57(f) - human health)
186	Disodium octaborate*	12008-41-2	234-541-0	%	0.005	Toxic for reproduction (Article 57c)
187	Dodecamethylcyclohexasilox ane(D6)	540-97-6	208-762-8	%	0.005	PBT (Article 57d) vPvB (Article 57e)
188	Ethylenediamine(EDA)	107-15-3	203-468-6	%	0.005	Respiratory sensitising properties (Article 57(f) - human health)
189	Lead	7439-92-1	231-100-4	%	0.005	Toxic for reproduction (Article 57c)
190	Octamethylcyclotetrasiloxane(D4)	556-67-2	209-136-7	%	0.005	PBT (Article 57d) vPvB (Article 57e)
191	Terphenyl, hydrogenated	61788-32-7	262-967-7	%	0.005	vPvB (Article 57e)

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Note:

- N.D. = Not Detected or less than MDL
- MDL = Method Detection Limit
- % = Percentage by weight
- -0.1% = 1000 mg/kg, mg/kg = ppm
- 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)
- * = Calculated concentration of the items 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 , Zirconia Aluminosilicate Refractory Ceramic Fibres is based on the identified aluminum and zirconium results by ICP-AES
- The chemical analysis of 191 SVHC is performed by means of currently available analytical techniques against the list published by ECHA on October 28, 2008 & January 13,2010& March 30,2010&June 18,2010& December 15,2010&June 20, 2011 &December 19,2011&June 18, 2012& June 20, 2013&December 16,2013&June 16, 2014&December 17, 2014 &June 15, 2015&December 17, 2015 &June 20, 2016 & January 12, 2017&July 7, 2017&January 15, 2018&June 27,2018 all refer to https://echa.europa.eu/candidate-list-table
 - This list is under evaluation by ECHA and may subject to change in the future.
- 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.
- Photo appendix is included.

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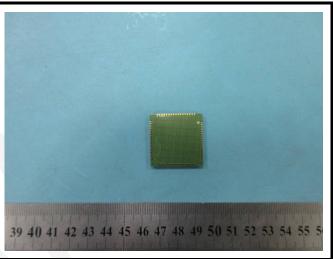
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Photograph of Sample





BACL authenticate the photo on original report only

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