



<b>Prüfbericht - Nr.: 238488097b 001</b>		<b>Seite 1 von 11</b>			
<i>Test Report No.:</i>		<i>Page 1 of 11</i>			
<b>Auftraggeber:</b>	STMicroelectronics SAS				
<i>Client:</i>	190 Avenue Celestin Coq, Rousset, France				
<b>Gegenstand der Prüfung:</b>	STM32WB5MMG				
<i>Test Item:</i>					
<b>Bezeichnung:</b>	32WB5M				
<i>Identification:</i>					
<b>Anlieferungszustand:</b>	apparent good	<b>Eingangsdatum:</b>	2020-07-02		
<i>Delivery condition:</i>		<i>Date of Receipt:</i>			
<b>Prüfört:</b>	TÜV Rheinland Hong Kong Ltd.				
<i>Testing location:</i>					
<b>Prüfgrundlage:</b>	Customer Requirement:				
<i>Test specification:</i>	Risk Assessment of Articles: Screening of substances of very high concern (SVHC) subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 ,(EU) No 895/2014, (EU) No. 2017/999 and (EU) No. 2020/171 (Annex XIV of EC No 1907/2006 (REACH)) and candidate list by European Chemical Agency (ECHA), according to the EU Court of Justice rules on SVHCs in articles (Guidance on requirements for substances in articles, June 2017)				
<b>Prüfergebnis:</b>	The test results are the measurements, stated in the test report.				
<i>Test result:</i>					
<b>geprüft: tested by:</b>	<b>kontrolliert: checked by:</b>				
					
2020-07-17	Fanny Lin	2020-07-17	Arthur Cheng		
	/Project Coordinator		/Project Manager		
<b>Datum</b>	<b>Name/Stellung</b>	<b>Unterschrift</b>	<b>Datum</b>	<b>Name/Stellung</b>	<b>Unterschrift</b>
<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>	<i>Date</i>	<i>Name/Position</i>	<i>Signature</i>
<b>Sonstiges/ Other Aspects:</b>					
Test period: 2020-07-02 – 2020-07-15					
<b>Abkürzungen:</b> ok / P = entspricht Prüfgrundlage fail / F = entspricht nicht Prüfgrundlage n.a. / N = nicht anwendbar			<b>Abbreviations:</b> ok / P = passed fail / F = failed n.a. / N = not applicable		
<p><b>Produktinformationen werden vom Kunden bereitgestellt. Das Testergebnis wird nach Art und Umfang der durchgeführten Tests gezogen. Dieser Prüfbericht bezieht sich auf das oben genannte Prüfmuster. Ohne Genehmigung des Testzentrums darf dieser Testbericht nicht in Auszügen vervielfacht werden. Dieser Prüfbericht berechtigt nicht zum Tragen eines Prüfzeichens auf diesem oder ähnlichen Produkten.</b></p> <p><i>Sample information is provided by customer. Test result is drawn according to the kind and extent of tests performed. This test report relates to the above mentioned test sample. Without permission of the test center this test report is not permitted to be duplicated in extracts. This test report does not entitle to carry any safety mark on this or similar products.</i></p>					

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**Screening of substances of very high concern (SVHC) subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013, (EU) No 895/2014 , (EU) No. 2017/999 and (EU) No. 2020/171 (Annex XIV of EC No 1907/2006) and candidate list by European Chemical Agency (ECHA), according to the EU Court of Justice rules on SVHCs in articles.**

**Product Classification:**

With reference to Corrigendum to Regulation (EC) no.1907/2006 and ECHA, this product is classified as:

<input checked="" type="checkbox"/>	Article
<input type="checkbox"/>	Article with an integral substance/ mixture
<input type="checkbox"/>	Combinations of an article (functioning as a container or a carrier material) and a substance/ mixture
<input type="checkbox"/>	Substance/ mixture

**Conclusion:**

Conclusion			
Product Location	Acc. to authorisation list (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 , (EU) No 895/2014, (EU) No. 2017/999 and (EU) No. 2020/171 (Annex XIV of EC No 1907/2006) and candidate list by ECHA, and the EU Court of Justice rules on SVHCs in articles, the detected SVHC concentration in components level is	Obligation of Importer(*) (For article)	Detected Substance (if any)
Main unit	< 0.1%	Not necessary	Refer to page 3

(For article)

(\*) To communicate information down the supply chain according to article. 33 of REACH. **OR**

1. Notification to ECHA, if the quantities of SVHC in the produced/imported articles are above 1 ton in total per year per company.
2. Provide sufficient information to ensure safe use of the article and, as a minimum, include the name of the substance, to their customers and on request to consumers within 45 days of the receipt of this request.

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**Test results**

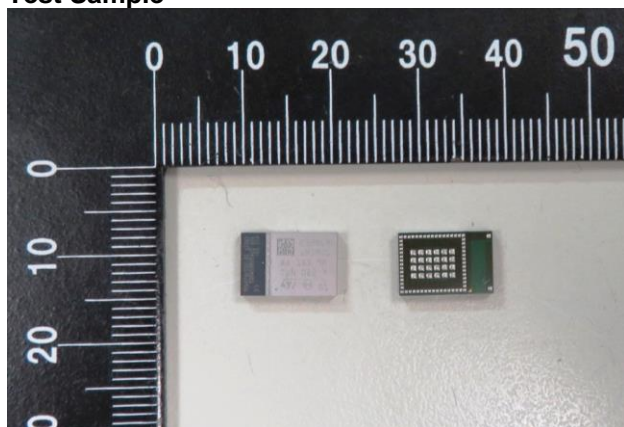
**1. Screening of SVHCs subject to authorisation, according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013 and (EU) No 895/2014, (EU) No. 2017/999 and (EU) No. 2020/171 (Annex XIV of EC No 1907/2006) and SVHCs in candidate list by European Chemical Agency (ECHA), and the EU Court of Justice rules on SVHCs in articles.**

- Test Method:
- 1) A representative test portion is prepared by cryogenic milling.
  - 2) Test portion is digested with acid and assisted with microwave, the elements are analysed by ICP-OES.
  - 3) Test portion is extracted by organic solvent, semi-quantitative analysis by GC-MS / UV-Vis
  - 4) Test portion is extracted by organic solvent, the extraction solution is analyzed by Headspace-GC/MS / LC-DAD-MS / LC-MS/MS.
  - 5) Screening Test by XRF Spectroscopy.

Sample Material Lab.-No.	STM32WB5MMG electronic component / multicolor TCL200702-05
Result (%)	Co:0.0051; the theoretical content of Cobalt (II) dichloride= 0.01; Cobalt (II) sulphate= 0.01; Cobalt (II) dinitrate= 0.02; Cobalt (II) carbonate= 0.01; Cobalt (II) diacetate= 0.02

Abbreviation: < = less than  
RL = Reporting Limit  
% = Percentage

**Test Sample**



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## Remark:

(\*1) The reporting limit for each individual SVHC subject to authorisation according to (EU) No 143/2011, (EU) No 125/2012, (EU) No 348/2013, (EU) No 895/2014, (EU) No. 2017/999 and (EU) No. 2020/171 (Annex XIV of EC No 1907/2006):

	Substances	CAS No.	Reporting Limit
1	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	0.01%
2	Benzyl butyl phthalate (BBP)	85-68-7	0.01%
3	Bis (2-ethylhexyl)phthalate (DEHP)	117-81-7	0.01%
4	Dibutyl phthalate (DBP)	84-74-2	0.01%
5	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane	25637-99-4 / 3194-55-6 / 134237-50-6 / 134237-51-7 / 134237-52-8	0.01%
6	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	0.01%
7	2,4-Dinitrotoluene (2,4-DNT)	121-14-2	0.01%
8	Diisobutyl phthalate (DIBP)	84-69-5	0.01%
9	Tris(2-chloroethyl)phosphate	115-96-8	0.01%
10	Diarsenic pentaoxide <sup>(*3)</sup>	1303-28-2	0.01%
11	Diarsenic trioxide <sup>(*3)</sup>	1327-53-3	0.01%
12	Lead chromate <sup>(*3)(*4)</sup>	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) <sup>(*3)(*4)</sup>	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I. Pigment Yellow 34) <sup>(*3)</sup>	1344-37-2	0.01%
15	Trichloroethylene	79-01-6	0.01%
16	Chromium trioxide <sup>(*4)</sup>	1333-82-0	0.01%
17	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. <sup>(*4)</sup>	7738-94-5 / 13530-68-2	0.01%
18	Sodium dichromate <sup>(*3)</sup>	7789-12-0 / 10588-01-9	0.01%
19	Potassium dichromate <sup>(*4)</sup>	7778-50-9	0.01%
20	Ammonium dichromate <sup>(*4)</sup>	7789-09-5	0.01%
21	Potassium chromate <sup>(*4)</sup>	7789-00-6	0.01%
22	Sodium chromate <sup>(*4)</sup>	7775-11-3	0.01%
23	Formaldehyde, oligomeric reaction products with aniline (technical MDA) <sup>(*11)</sup>	25214-70-4	0.01%
24	1,2-Dichloroethane	107-06-2	0.01%
25	Bis(2-methoxyethyl) ether	111-96-6	0.01%
26	Arsenic acid <sup>(*3)</sup>	7778-39-4	0.01%
27	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	0.01%
28	Dichromium tris(chromate) <sup>(*4)</sup>	24613-89-6	0.01%
29	Strontium chromate <sup>(*4)</sup>	7789-06-2	0.01%
30	Potassium hydroxyoctaoxodizincatedichromate <sup>(*4)</sup>	11103-86-9	0.01%

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	Substances	CAS No.	Reporting Limit
31	Pentazinc chromate octahydroxide <sup>(*)4)</sup>	49663-84-5	0.01%
32	1-bromopropane (n-propyl bromide)	106-94-5	0.01%
33	Diisopentylphthalate	605-50-5	0.01%
34	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	0.01%
35	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	0.01%
36	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.01%
37	Bis(2-methoxyethyl) phthalate	117-82-8	0.01%
38	Dipentyl phthalate (DPP)	131-18-0	0.01%
39	N-pentyl-isopentylphthalate	776297-69-9	0.01%
40	Anthracene oil <sup>(*)7)</sup>	90640-80-5	0.01% <sup>(*)8)</sup>
41	Pitch, coal tar, high temperature <sup>(*)7)</sup>	65996-93-2	0.01%
42	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO) [covering well-defined substances and UVCB substances, polymers and homologues]	-	0.01%
43	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]	-	0.01%
44	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	0.01%
45	Dihexyl phthalate	84-75-3	0.01%
46	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	0.01%
47	Trixylyl phosphate	25155-23-1	0.01%
48	Sodium perborate,perboric acid, sodium salt <sup>(*)3)</sup> <sup>(*)6)</sup>	-	0.01%
49	Sodium peroxometaborate <sup>(*)3)</sup> <sup>(*)6)</sup>	7632-04-4	0.01%
50	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]	-	0.01%
51	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.01%
52	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	0.01%
53	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	0.01%
54	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.01%

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(\*2) The reporting limit for each individual SVHC in Candidate List by ECHA:

	Substances	CAS No.	Reporting Limit
55	Anthracene	120-12-7	0.01%
56	Bis(tributyltin) oxide (TBTO) <sup>(*3)</sup> <sup>(*5)</sup>	56-35-9	0.01%
57	Triethyl arsenate <sup>(*3)</sup>	15606-95-8	0.01%
58	Lead hydrogen arsenate <sup>(*3)</sup>	7784-40-9	0.01%
59	Cobalt dichloride <sup>(*3)</sup>	7646-79-9	0.01%
60	Acrylamide	79-06-1	0.01%
61	Anthracene oil, anthracene paste, distn. lights <sup>(*7)</sup>	91995-17-4	0.01% <sup>(*8)</sup>
62	Anthracene oil, anthracene paste, anthracene fraction <sup>(*7)</sup>	91995-15-2	
63	Anthracene oil, anthracene-low <sup>(*7)</sup>	90640-82-7	
64	Anthracene oil, anthracene paste <sup>(*7)</sup>	90640-81-6	
65	Boric acid <sup>(*3)</sup> <sup>(*6)</sup>	10043-35-3 / 11113-50-1	0.01%
66	Disodium tetraborate, anhydrous <sup>(*3)</sup> <sup>(*6)</sup>	1303-96-4 / 1330-43-4 / 12179-04-3	0.01%
67	Tetraboron disodium heptaoxide, hydrate <sup>(*3)</sup> <sup>(*6)</sup>	12267-73-1	0.01%
68	2-Methoxyethanol	109-86-4	0.01%
69	2-Ethoxyethanol	110-80-5	0.01%
70	Cobalt(II) sulphate <sup>(*3)</sup>	10124-43-3	0.01%
71	Cobalt(II) dinitrate <sup>(*3)</sup>	10141-05-6	0.01%
72	Cobalt(II) carbonate <sup>(*3)</sup>	513-79-1	0.01%
73	Cobalt(II) diacetate <sup>(*3)</sup>	71-48-7	0.01%
74	Alkanes C10-C13, chloro (Short Chain Chlorinated Paraffins) (SCCP)	85535-84-8	0.01%
75	2-Ethoxyethyl acetate	111-15-9	0.01%
76	Hydrazine	302-01-2 / 7803-57-8	0.01%
77	1-Methyl-2-pyrrolidone (NMP)	872-50-4	0.01%
78	1,2,3-Trichloropropane	96-18-4	0.01%
79	Aluminosilicate Refractory Ceramic Fibres (RCF) <sup>(*9)</sup>	-	0.01%
80	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) <sup>(*9)</sup>	-	0.01%
81	2-Methoxyaniline,o-Anisidine	90-04-0	0.01%
82	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.01%
83	Calcium arsenate <sup>(*3)</sup>	7778-44-1	0.01%
84	Trilead diarsenate <sup>(*3)</sup>	3687-31-8	0.01%
85	N,N-dimethylacetamide (DMAC)	127-19-5	0.01%
86	Phenolphthalein	77-09-8	0.01%
87	Lead dipicrate <sup>(*3)</sup>	6477-64-1	0.01%
88	Lead diazide, Lead azide <sup>(*3)</sup>	13424-46-9	0.01%
89	Lead styphnate <sup>(*3)</sup>	15245-44-0	0.01%
90	1,2-bis(2-methoxyethoxy)ethane (TEGDME, triglyme)	112-49-2	0.01%
91	1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)	110-71-4	0.01%

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	Substances	CAS No.	Reporting Limit
92	Diboron trioxide <sup>(*)3</sup> <sup>(*)6</sup>	1303-86-2	0.01%
93	Formamide	75-12-7	0.01%
94	Lead(II) bis(methanesulfonate) <sup>(*)3</sup>	17570-76-2	0.01%
95	1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	0.01%
96	1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	
97	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK	90-94-8	0.01%
98	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK	101-61-1	0.01%
99	[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)] <sup>(*)10</sup>	2580-56-5	0.01%
100	[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)] <sup>(*)10</sup>	548-62-9	
101	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)] <sup>(*)10</sup>	561-41-1	
102	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] <sup>(*)10</sup>	6786-83-0	
103	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	0.01%
104	Pentacosafuorotridecanoic acid	72629-94-8	0.01%
105	Tricosafuorododecanoic acid	307-55-1	0.01%
106	Henicosafuoroundecanoic acid	2058-94-8	0.01%
107	Heptacosafuorotetradecanoic acid	376-06-7	0.01%
108	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA) <sup>(*)12</sup>	123-77-3	0.05%
109	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	0.01%
110	Hexahydromethylphthalic anhydride (MHHPA) [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]	25550-51-0 / 19438-60-9 / 48122-14-1 / 57110-29-9	0.01%

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	Substances	CAS No.	Reporting Limit
111	N,N-dimethylformamide	68-12-2	0.01%
112	1,2-Diethoxyethane	629-14-1	0.01%
113	Diethyl sulphate	64-67-5	0.01%
114	Methoxyacetic acid (MAA)	625-45-6	0.01%
115	Dimethyl sulphate	77-78-1	0.01%
116	N-methylacetamide	79-16-3	0.01%
117	Furan	110-00-9	0.01%
118	Methyloxirane (Propylene oxide)	75-56-9	0.01%
119	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.01%
120	Dibutyltin dichloride (DBTC) <sup>(*)3</sup>	683-18-1	0.01%
121	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	0.01%
122	4,4'-methylenedi-o-toluidine	838-88-0	0.01%
123	4,4'-oxydianiline and its salts	101-80-4	0.01%
124	4-Aminoazobenzene	60-09-3	0.01%
125	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	0.01%
126	6-methoxy-m-toluidine (p-cresidine)	120-71-8	0.01%
127	Biphenyl-4-ylamine	92-67-1	0.01%
128	o-aminoazotoluene	97-56-3	0.01%
129	o-Toluidine	95-53-4	0.01%
130	Acetic acid, lead salt, basic <sup>(*)3</sup>	51404-69-4	0.01%
131	Trilead bis(carbonate) dihydroxide <sup>(*)3</sup>	1319-46-6	0.01%
132	Lead oxide sulfate <sup>(*)3</sup>	12036-76-9	0.01%
133	[Phthalato(2-)]dioxotrilead <sup>(*)3</sup>	69011-06-9	0.01%
134	Dioxobis(stearato)trilead <sup>(*)3</sup>	12578-12-0	0.01%
135	Fatty acids, C16-18, lead salts <sup>(*)3</sup>	91031-62-8	0.01%
136	Lead bis(tetrafluoroborate) <sup>(*)3</sup>	13814-96-5	0.01%
137	Lead cyanamidate <sup>(*)3</sup>	20837-86-9	0.01%
138	Lead dinitrate <sup>(*)3</sup>	10099-74-8	0.01%
139	Lead monoxide (lead oxide) <sup>(*)3</sup>	1317-36-8	0.01%
140	Orange lead (lead tetroxide) <sup>(*)3</sup>	1314-41-6	0.01%
141	Lead titanium trioxide <sup>(*)3</sup>	12060-00-3	0.01%
142	Lead titanium zirconium oxide <sup>(*)3</sup>	12626-81-2	0.01%
143	Pyrochlore, antimony lead yellow <sup>(*)3</sup>	8012-00-8	0.01%
144	Pentalead tetraoxide sulphate <sup>(*)3</sup>	12065-90-6	0.01%
145	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), 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] <sup>(*)3</sup>	68784-75-8	0.01%
146	Silicic acid, lead salt <sup>(*)3</sup>	11120-22-2	0.01%
147	Sulfurous acid, lead salt, dibasic <sup>(*)3</sup>	62229-08-7	0.01%



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	Substances	CAS No.	Reporting Limit
148	Tetraethyllead <sup>(*3)</sup>	78-00-2	0.01%
149	Tetralead trioxide sulphate <sup>(*3)</sup>	12202-17-4	0.01%
150	Trilead dioxide phosphonate <sup>(*3)</sup>	12141-20-7	0.01%
151	Ammonium pentadecafluorooctanoate (APFO) <sup>(*13)</sup>	3825-26-1	0.01%
152	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.01%
153	Cadmium <sup>(*3)</sup>	7440-43-9	0.01%
154	Cadmium oxide <sup>(*3)</sup>	1306-19-0	0.01%
155	4-Nonylphenol, branched and linear, ethoxylated (NPEO) [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]	-	0.01%
156	Imidazolidine-2-thione; (2-imidazoline-2-thiol)	96-45-7	0.01%
157	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0	0.01%
158	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	0.01%
159	Lead di(acetate) <sup>(*3)</sup>	301-04-2	0.01%
160	Cadmium sulphide <sup>(*3)</sup>	1306-23-6	0.01%
161	Cadmium chloride <sup>(*3)</sup>	10108-64-2	0.01%
162	Cadmium fluoride <sup>(*3)</sup>	7790-79-6	0.01%
163	Cadmium sulphate <sup>(*3)</sup>	10124-36-4 / 31119-53-6	0.01%
164	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) <sup>(*14)</sup>	15571-58-1	0.01%
165	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) <sup>(*15)</sup>	-	0.01%
166	1,3-propanesultone	1120-71-4	0.01%
167	Nitrobenzene	98-95-3	0.01%
168	Perfluorononan-1-oic-acid and its sodium and ammonium salts	375-95-1 21049-39-8 4149-60-4	0.01%
169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	0.01%
170	4,4'-isopropylidenediphenol (bisphenol A)	80-05-7	0.01%
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2 3830-45-3 3108-42-7	0.01%

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	Substances	CAS No.	Reporting Limit
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]	-	0.01%
173	p-(1,1-dimethylpropyl)phenol	80-46-6	0.01%
174	Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	-	0.01%
175	Chrysene	218-01-9	0.01%
176	Benzo[a]anthracene	56-55-3	0.01%
177	Cadmium nitrate <sup>(*)3</sup>	10325-94-7	0.01%
178	Cadmium hydroxide <sup>(*)3</sup>	21041-95-2	0.01%
179	Cadmium carbonate <sup>(*)3</sup>	513-78-0	0.01%
180	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octa deca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	0.01%
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]	-	0.01%
182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride, TMA)	552-30-7	0.01%
183	Dicyclohexyl phthalate (DCHP)	84-61-7	0.01%
184	Terphenyl, hydrogenated	61788-32-7	0.01%
185	Octamethylcyclotetrasiloxane (D4)	556-67-2	0.01%
186	Decamethylcyclopentasiloxane (D5)	541-02-6	0.01%
187	Dodecamethylcyclohexasiloxane (D6)	540-97-6	0.01%
188	Ethylenediamine (EDA)	107-15-3	0.01%
189	Lead	7439-92-1	0.01%
190	Disodium octaborate <sup>(*)3</sup>	12008-41-2	0.01%
191	Benzo[ghi]perylene	191-24-2	0.01%
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	0.01%
193	Benzo[k]fluoranthene	207-08-9	0.01%
194	Fluoranthene	206-44-0	0.01%
195	Phenanthrene	85-01-8	0.01%
196	Pyrene	129-00-0	0.01%
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo [2.2.1]heptan- 2-one	15087-24-8	0.01%
198	2-methoxyethyl acetate	110-49-6	0.01%
199	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	0.01%

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	Substances	CAS No.	Reporting Limit
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)	-	0.01%
201	4-tert-butylphenol	98-54-4	0.01%
202	Diisohexyl phthalate (DiHexP)	71850-09-4	0.01%
203	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	0.01%
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	0.01%
205	Perfluorobutane sulfonic acid (PFBS) and its salts	-	0.01%
206	1-vinylimidazole	1072-63-5	0.01%
207	2-methylimidazole	693-98-1	0.01%
208	Dibutylbis(pentane-2,4-dionato-O,O')tin	22673-19-4	0.01%
209	Butyl 4-hydroxybenzoate (Butylparaben)	94-26-8	0.01%

- (\*3) The substances are tested and calculated in terms of its respective elements and to the worst-case scenario. And the elements may come from the compounds other than SVHCs.
- (\*4) The substances are tested and calculated in terms of Cr (VI).
- (\*5) The substance is tested and calculated in terms of Tributyl tin.
- (\*6) The substances are confirmed and tested in terms of borate. Boric acid, Disodium tetraborate, anhydrous, Tetraboron disodium heptaoxide, hydrate and Diboron trioxide, Sodium perborate, perboric acid, sodium salt, Sodium peroxometaborate are detected as sum of boric acid. And the borate may come from the compounds other than SVHCs.
- (\*7) The substances are UVCB (substance of unknown or variable composition, complex reaction products or biological materials), which are identified by its main constituents.
- (\*8) Individual concentrations to the constituent of UVCB with an amount of < 0.01% were not considered by the calculation of the sum.
- (\*9) The test results are based on microscopic and chemical evaluation.
- (\*10) The substances are quantified in terms of Michler's ketone and Michler's base by LC-MS, as Michler's ketone or Michler's base was found exceeds 0.01%.
- (\*11) The content oligomer is determined by Py-GC/MS.
- (\*12) The content of diazene-1,2-dicarboxamide is analyzed in terms of its breakdown product.
- (\*13) The substance is tested in terms of pentadecafluorooctanoate.
- (\*14) The substance is tested and calculated in terms of dioctyl tin.
- (\*15) The substance is tested and calculated in terms of mono-octyl tin and dioctyl tin.

--- End of Test-Report ---