

### Material list

Item: riflesso set

Material No.	Material	Description	Remark
M001	Tritan	RIFB2-CL	Clear
M002	Tritan	RIFB2-YE	Yellow
M003	Tritan	RIFB2-PI	Pink
M004	Tritan	RIFB2-CY	Cyan
M005	Tritan	RIFB2-BL	Skyblue
M006	Tritan	RIFB2-BK	Black

### Test results

1. **Screening 173 Substances of very high concern (SVHC). SVHC candidate list based on the publication by European Chemical Agency (EHCA) on January 17, 2017, regarding regulation (EC) No. 1907/2006 concerning the REACH.**

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.

Test No.:	T001	T002
Material No.:	M001+M002+M003	M004+M005+M006
Result (mg/kg)	n.d.	n.d.

### Abbreviation

n.d. = Not Detected (< Reporting Limit)  
mg/kg = Milligram per kilogram

Remark:

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

	Substances	CAS No.	Reporting Limit
1	4,4'- Diaminodiphenylmethane (MDA)	101-77-9	0.01%
2	Benzylbutyl 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	0.01%
6	5-Tert-butyl-2,4,6-trinitro-m-xylene (Musk Xylene, MX)	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 pentoxide(*3)	1303-28-2	0.01%
11	Diarsenic trioxide(*3)	1327-53-3	0.01%
12	Lead chromate(*3)(*4)	7758-97-6	0.01%
13	Lead chromate molybdate sulphate red (C.I. Pigment Red 104) (*3)(*4)	12656-85-8	0.01%
14	Lead sulfochromate yellow (C.I.Pigment Yellow 34) (*3)	1344-37-2	0.01%
15	Trichloroethylene	79-01-6	0.01%
16	Chromium trioxide(*4)	1333-82-0	0.01%
17	Acids generated from chromium trioxide and their oligomers: Chromic acid Dichromic acid Oligomers of chromic acid and dichromic acid(*4)	7738-94-5 13530-68-2	0.01%
18	Sodium dichromate (*4)	7789-12-0/10588-01-9	0.01%
19	Potassium dichromate(*4)	7778-50-9	0.01%
20	Ammonium dichromate(*4)	7789-09-5	0.01%
21	Potassium chromate(*4)	7789-00-6	0.01%
22	Sodium chromate(*4)	7775-11-3	0.01%
23	Anthracene	120-12-7	0.01%
24	Bis(tributyltin)oxide (TBTO) (*5)	56-35-9	0.01%
25	Triethyl arsenate(*3)	15606-95-8	0.01%
26	Lead hydrogen arsenate(*3)	7784-40-9	0.01%
27	Cobalt(II) dichloride(*3)	7646-79-9	0.01%
28	Acrylamide	79-06-1	0.01%
29	Anthracene oil(*7)	90640-80-5	0.01%(*8)
30	Anthracene oil,anthracene paste,distn.lights(*7)	91995-17-4	
31	Anthracene oil, anthracene paste, anthracene fraction (*7)	91995-15-2	
32	Anthracene oil, anthracene-low(*7)	90640-82-7	
33	Anthracene oil, anthracene paste (*7)	90640-81-6	
34	Coal tar pitch, high temperature (*7)	65996-93-2	
35	Boric acid(*3) (*6)	10043-35-3/11113-50-1	0.01%

	Substances	CAS No.	Reporting Limit
36	Disodium tetraborate, anhydrous(*3) (*6)	1330-43-4/12179-04-3/ 1303-96-4	0.01%
37	Tetraboron disodium heptaoxide, hydrate(*3) (*6)	12267-73-1	0.01%
38	2-Methoxyethanol	109-86-4	0.01%
39	2-Ethoxyethanol	110-80-5	0.01%
40	Cobalt(II) sulphate(*3)	10124-43-3	0.01%
41	Cobalt(II) dinitrate(*3)	10141-05-6	0.01%
42	Cobalt(II) carbonate(*3)	513-79-1	0.01%
43	Cobalt(II) diacetate(*3)	71-48-7	0.01%
44	Alkanes C10-C13, chloro (Short chain chlorinated paraffins) (SCCP)	85535-84-8	0.01%
45	2-Ethoxyethyl acetate	111-15-9	0.01%
46	Strontium chromate (*4)	7789-06-2	0.01%
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	68515-42-4	0.01%
48	Hydrazine	7803-57-8 302-01-2	0.01%
49	1-Methyl-2-pyrrolidone	872-50-4	0.01%
50	1,2,3-Trichloropropane	96-18-4	0.01%
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters C7-rich (DIHP)	71888-89-6	0.01%
52	Dichromium tris(chromate) (*4)	24613-89-6	0.01%
53	Potassium hydroxyoctaoxidizincatedi-chromate (*4)	11103-86-9	0.01%
54	Pentazinc chromate octahydroxide (*4)	49663-84-5	0.01%
55	Aluminosilicate Refractory Ceramic Fibres (RCF) (*9)	-	0.01%
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) (*9)	-	0.01%
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA) (*11)	25214-70-4	0.01%
58	Bis(2-methoxyethyl) phthalate	117-82-8	0.01%
59	2-Methoxyaniline; o-Anisidine	90-04-0	0.01%
60	4-(1,1,3,3-tetramethylbutyl)phenol	140-66-9	0.01%
61	1,2-Dichloroethane	107-06-2	0.01%
62	Bis(2-methoxyethyl) ether	111-96-6	0.01%
63	Arsenic acid (*3)	7778-39-4	0.01%
64	Calcium arsenate (*3)	7778-44-1	0.01%
65	Trilead diarsenate (*3)	3687-31-8	0.01%
66	N,N-dimethylacetamide (DMAC)	127-19-5	0.01%
67	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	0.01%
68	Phenolphthalein	77-09-8	0.01%
69	Lead dipicrate (*3)	6477-64-1	0.01%
70	Lead diazide, Lead azide (*3)	13424-46-9	0.01%
71	Lead styphnate (*3)	15245-44-0	0.01%
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2	0.01%
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4	0.01%
74	Diboron trioxide	1303-86-2	0.01%

	Substances	CAS No.	Reporting Limit
75	Formamide	75-12-7	0.01%
76	Lead(II) bis(methanesulfonate) (*3)	17570-76-2	0.01%
77	1,3,5-tris(oxiran-2-ylmethyl)-1,3,5-triazinane-2,4,6-trione (TGIC)	2451-62-9	0.01%
78	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	
79	4,4'-bis(dimethylamino)benzophenone (Michler's ketone), MK	90-94-8	0.01%
80	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base), RMK	101-61-1	0.01%
81	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) (*10)	2580-56-5	0.01%
82	[4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) (*10)	548-62-9	
83	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol (*10)	561-41-1	
84	α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) (*10)	6786-83-0	
85	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5	0.01%
86	Pentacosafuorotridecanoic acid	72629-94-8	0.01%
87	Tricosafuorododecanoic acid	307-55-1	0.01%
88	Henicosafuoroundecanoic acid	2058-94-8	0.01%
89	Heptacosafuorotetradecanoic acid	376-06-7	0.01%
90	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated (OPEO) <i>[covering well-defined substances and UVCB substances, polymers and homologues]</i>	-	0.01%
91	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (*12)	123-77-3	0.05%
92	4-Nonylphenol, branched and linear <i>[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]</i>	-	0.01%
93	Hexahydro-2-benzofuran-1,3-dione (HHPA) cis-cyclohexane-1,2-dicarboxylic anhydride trans-cyclohexane-1,2-dicarboxylic anhydride	85-42-7 13149-00-3 14166-21-3	0.01%
94	Hexahydromethylphthalic anhydride (MHHPA) Hexahydro-4-methylphthalic anhydride Hexahydro-1-methylphthalic anhydride Hexahydro-3-methylphthalic anhydride	25550-51-0 19438-60-9 48122-14-1 57110-29-9	0.01%
95	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	0.01%
96	Diisopentylphthalate	605-50-5	
97	N-pentyl-isopentylphthalate	776297-69-9	
98	Methoxyacetic acid (MAA)	625-45-6	0.01%
99	N,N-dimethylformamide	68-12-2	0.01%
100	1,2-Diethoxyethane	629-14-1	0.01%
101	Diethyl sulphate	64-67-5	0.01%
102	Dimethyl sulphate	77-78-1	0.01%
103	N-methylacetamide	79-16-3	0.01%
104	1-bromopropane (n-propyl bromide)	106-94-5	0.01%
105	Furan	110-00-9	0.01%

	Substances	CAS No.	Reporting Limit
106	Methyloxirane (Propylene oxide)-	75-56-9	0.01%
107	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	0.01%
108	Dibutyltin dichloride (DBTC) (*5)	683-18-1	0.01%
109	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	0.01%
110	4,4'-methylenedi-o-toluidine	838-88-0	0.01%
111	4,4'-oxydianiline and its salts	101-80-4	0.01%
112	4-Aminoazobenzene	60-09-3	0.01%
113	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	0.01%
114	6-methoxy-m-toluidine (p-cresidine)	120-71-8	0.01%
115	Biphenyl-4-ylamine	92-67-1	0.01%
116	o-aminoazotoluene	97-56-3	0.01%
117	o-Toluidine	95-53-4	0.01%
118	Acetic acid, lead salt, basic (*3)	51404-69-4	0.01%
119	Trilead bis(carbonate)dihydroxide (*3)	1319-46-6	0.01%
120	Lead oxide sulfate (*3)	12036-76-9	0.01%
121	[Phthalato(2-)]dioxotrilead (*3)	69011-06-9	0.01%
122	Dioxobis(stearato)trilead (*3)	12578-12-0	0.01%
123	Fatty acids, C16-18, lead salts (*3)	91031-62-8	0.01%
124	Lead bis(tetrafluoroborate) (*3)	13814-96-5	0.01%
125	Lead cyanamidate (*3)	20837-86-9	0.01%
126	Lead dinitrate (*3)	10099-74-8	0.01%
127	Lead monoxide (Lead oxide) (*3)	1317-36-8	0.01%
128	Orange lead (Lead tetroxide) (*3)	1314-41-6	0.01%
129	Lead titanium trioxide (*3)	12060-00-3	0.01%
130	Lead Titanium Zirconium Oxide (*3)	12626-81-2	0.01%
131	Pyrochlore, antimony lead yellow (*3)	8012-00-8	0.01%
132	Pentalead tetraoxide sulphate (*3)	12065-90-6	0.01%
133	Silicic acid, barium salt (1:1), lead-doped (*3)	68784-75-8	0.01%
134	Silicic acid, lead salt (*3)	11120-22-2	0.01%
135	Sulfurous acid, lead salt, dibasic (*3)	62229-08-7	0.01%
136	Tetraethyllead (*3)	78-00-2	0.01%
137	Tetralead trioxide sulphate (*3)	12202-17-4	0.01%
138	Trilead dioxide phosphonate (*3)	12141-20-7	0.01%
139	Cadmium	7440-43-9	0.01%
140	Ammonium pentadecafluorooctanoae (APEO)	3825-26-1	0.01%
141	Pentadecafluorooctanoic acid (PFOA)	335-67-1	0.01%
142	Depentyl phthalate (DPP)	131-18-0	0.01%
143	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]	-	0.01%

	Substances	CAS No.	Reporting Limit
144	Cadmium oxide (*3)	1306-19-0	0.01%
145	Cadmium sulphide(*3)	1306-23-6	0.01%
146	Dihexyl phthalate	84-75-3	0.01%
147	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%
148	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%
149	Imidazolidine-2-thione; 2-imidazoline-2-thiol (Ethylenethiourea)	96-45-7	0.01%
150	Lead di(acetate) (*3)	301-04-2	0.01%
151	Trixylyl phosphate	25155-23-1	0.01%
152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4	0.01%
153	Cadmium chloride(*3)	10108-64-2	0.01%
154	Sodium perborate; perboric acid, sodium salt(*3)	-	0.01%
155	Sodium peroxometaborate(*3)	7632-04-04	0.01%
156	Cadmium fluoride (*3)	7790-79-6	0.01%
157	Cadmium sulphate(*3)	10124-36-4	0.01%
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	0.01%
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	0.01%
160	2-ethylhexyl 10-ethyl-4, 4-dioctyl-7-oxo-8-oxa-3, 5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1	0.01%
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****)	-	0.01%
162	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%
163	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters;	68515-51-5	0.01%
164	1,3-propanesultone	1120-71-4	0.01%
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	0.01%
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	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	50-32-8	0.01%
170	4,4'-isopropylidenediphenol	80-05-7	0.01%
171	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	-	0.01%
172	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	3108-42-7 335-76-2 3830-45-3	0.01%
173	p-(1,1-dimethylpropyl)phenol	80-46-6	0.01%

**Remarks:**

- (\*3) The substance is tested in terms of its respective elements (As, Pb, Co, B, Ba, Cd, Na)
- (\*4) The substance is tested in terms of Cr (VI)
- (\*5) The substance is tested and calculated in terms of Tributyl tin.
- (\*6) The substance is confirmed and tested in terms of Boric acid
- (\*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 result is based on microscopic and chemical evaluation.
- (\*10) The substance is 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 oligomer content is determined by Py-GC/MS.
- (\*12) The content of diazene-1,2-dicarboxamide is analyzed in term of its breakdown product
- (\*13) The material whose weight is <0.1% of the total weight in an article is neglected for testing.
- (\*14) For this mixed sample, the result was found to be more than the reporting limit. It's recommended that individual sample should be tested separately.
- (\*15) For battery sample, the anion content is confirmed by oxygen pump assessed digestion - Ion chromatography
- (\*16) The non-metal part of test article is grinded to a homogeneous powder by cryogenic milling.
- (\*17) The tested material(s) was screened only for selected SVHC substance(s). Selection of tests refers to the material type and application and the possibility of contamination during production & material specific contamination of the product.
- (\*18) The extractable content of substances are confirmed and tested in terms of Boric acid by in house method.
- (\*19) The other SVHC substances which are not mentioned in test result were either not subject to testing according to remark \*16 or not detected.