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| Company Name | : |  |
| Address | : |  |

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| **Sample Description** | | |
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| Name / Type of Product | : |  |
| Item No. / Part No. | : |  |
| Material/Color | : |  |
| Manufacturer/Vendor | : |  |
|  |  | |
| Date Received | : | 0000. 00. 00 |
| Test Period | : | 0000. 00. 00 ~ 0000. 00. 00 |
|  |  | |
| Test Type | :  : | Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH |
| Test Site |  | Fixed Test Lab (RM908~915 126, Beolmal-ro, Dongan-gu, Anyang-si) |
| Test Method(s) | : | For the detail, please the following page(s). |
| Test Results(s) | : | For the detail, please the following page(s). |

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|  |  | Authorized by |
|  |  | Bureau Veritas Korea Co., Ltd.  Consumer Product Services |
| Scan to see the Report |  | **JIN KIM** |
|  |  | Lab Manager / Bureau Veritas Korea CPS |

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| TEST RESULT |

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| **Candidate List of Substances of Very High Concern for authorization published by European Chemicals Agency (ECHA) Regarding Regulation (EC) No. 1907/2006 concerning REACH.** |

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| **No.** | Substance name | **CAS No.** | **EC No.** | **Basis for identification as a SVHC** | Detection Limit,  % | Result,% |
| 1 | Triethyl arsenate\* | 15606-95-8 | 427-700-2 | Carcinogenic | 0.01 | ND |
| 2 | Anthracene | 120-12-7 | 204-371-1 | PBT | 0.005 | ND |
| 3 | 4,4’-Diaminodiphenyl  methane (MDA) | 101-77-9 | 202-974-4 | Carcinogenic | 0.005 | ND |
| 4 | Dibutyl phthalate (DBP) | 84-74-2 | 201-557-4 | Toxic for reproduction; Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 5 | Cobalt dichloride\* | 7646-79-9 | 231-589-4 | Carcinogenic | 0.01 | ND |
| 6 | Diarsenic pentaoxide\* | 1303-28-2 | 215-116-9 | Carcinogenic | 0.01 | ND |
| 7 | Diarsenic trioxide\* | 1327-53-3 | 215-481-4 | Carcinogenic | 0.01 | ND |
| 8 | Sodium dichromate\* | 7789-12-0(1),  10588-01-9(2) | 234-190-3 | Carcinogenic;  Mutagenic;  Toxic for reproduction | 0.01 | ND |
| 9 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 81-15-2 | 201-329-4 | vPvB | 0.005 | ND |
| 10 | Bis (2-ethylhexyl) phthalate (DEHP) | 117-81-7 | 204-211-0 | Toxic for reproduction; Equivalent level of concern having probable serious effects to environment and human health | 0.005 | ND |
| 11 | Hexabromo  cyclododecane (HBCDD) and all major diastereoisomers identified: | 3194-55-6(3), 25637-99-4(4) | 247-148-4, 221-695-9 | PBT | 0.005 | ND |
| α - HBCDD | 134237-50-6 |
| β - HBCDD | 134237-51-7 |
| γ - HBCDD | 134237-52-8 |
| 12 | Alkanes, C10-13, chloro  (Short Chain Chlorinated Paraffins) (SCCP) | 85535-84-8 | 287-476-5 | PBT, vPvB | 0.01 | ND |
| 13 | Bis(tributyltin)oxide  (TBTO)\*\* | 56-35-9 | 200-268-0 | PBT | 0.005 | ND |
| 14 | Lead hydrogen arsenate\* | 7784-40-9 | 232-064-2 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 15 | Benzyl butyl phthalate (BBP) | 85-68-7 | 201-622-7 | Toxic for reproduction; Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 16 | 2,4-Dinitrotoluene | 121-14-2 | 204-450-0 | Carcinogenic | 0.005 | ND |
| 17 | Anthracene oil | 90640-80-5 | 292-602-7 | Carcinogenic, PBT, vPvB | 0.01 | ND |
| 18 | Anthracene oil, anthracene paste, distn. Lights | 91995-17-4 | 295-278-5 | Carcinogenic; Mutagenic,  PBT, vPvB | 0.01 | ND |
| 19 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | 295-275-9 | Carcinogenic; Mutagenic,  PBT, vPvB | 0.01 | ND |
| 20 | Anthracene oil, anthracene-low | 90640-82-7 | 292-604-8 | Carcinogenic; Mutagenic,  PBT, vPvB | 0.01 | ND |
| 21 | Anthracene oil, anthracene paste | 90640-81-6 | 292-603-2 | Carcinogenic; Mutagenic,  PBT, vPvB | 0.01 | ND |
| 22 | Diisobutyl phthalate | 84-69-5 | 201-553-2 | Toxic for reproduction; Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 23 | Aluminosilicate, Refractory Ceramic Fibres\*a | Index no. 650-017-00-8 | | Carcinogenic | 0.01 | ND |
| 24 | Zirconia Aluminosilicate, Refractory Ceramic Fibres\*b | Index no. 650-017-00-8 | | Carcinogenic | 0.01 | ND |
| 25 | Lead chromate\* | 7758-97-6 | 231-846-0 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 26 | Lead chromate molybdate sulfate red (C.I. Pigment Red 104)\* | 12656-85-8 | 235-759-9 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 27 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)\* | 1344-37-2 | 215-693-7 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 28 | Tris(2-chloroethyl) phosphate | 115-96-8 | 204-118-5 | Toxic for reproduction | 0.005 | ND |
| 29 | Coal tar pitch, high temperature | 65996-93-2 | 266-028-2 | Carcinogenic, PBT, vPvB | 0.01 | ND |
| 30 | Acrylamide | 79-06-1 | 201-173-7 | Carcinogenic; Mutagenic | 0.005 | ND |
| 31 | Trichloroethylene | 79-01-6 | 201-167-4 | Carcinogenic | 0.005 | ND |
| 32 | Boric acid\* | 10043-35-3, 11113-50-1 | 233-139-2 / 234-343-4 | Toxic for reproduction | 0.01 | ND |
| 33 | Disodium tetraborate, anhydrous\* | 1330-43-4(5), 12179-04-3(6),  1303-96-4(7) | 215-540-4 | Toxic for reproduction | 0.01 | ND |
| 34 | Tetraboron disodium heptaoxide, hydrate\* | 12267-73-1 | 235-541-3 | Toxic for reproduction | 0.01 | ND |
| 35 | Sodium chromate\* | 7775-11-3 | 231-889-5 | Carcinogenic;  Mutagenic;  Toxic for reproduction | 0.01 | ND |
| 36 | Potassium chromate\* | 7789-00-6 | 232-140-5 | Carcinogenic;  Mutagenic | 0.01 | ND |
| 37 | Ammonium dichromate\* | 7789-09-5 | 232-143-1 | Carcinogenic;  Mutagenic;  Toxic for reproduction | 0.01 | ND |
| 38 | Potassium dichromate\* | 7778-50-9 | 231-906-6 | Carcinogenic;  Mutagenic;  Toxic for reproduction | 0.01 | ND |
| 39 | Cobalt(II) sulphate\* | 10124-43-3 | 233-334-2 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 40 | Cobalt(II) dinitrate\* | 10141-05-6 | 233-402-1 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 41 | Cobalt(II) carbonate\* | 513-79-1 | 208-169-4 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 42 | Cobalt(II) diacetate\* | 71-48-7 | 200-755-8 | Carcinogenic;  Toxic for reproduction | 0.01 | ND |
| 43 | 2-Methoxyethanol | 109-86-4 | 203-713-7 | Toxic for reproduction | 0.005 | ND |
| 44 | 2-Ethoxyethanol | 110-80-5 | 203-804-1 | Toxic for reproduction | 0.005 | ND |
| 45 | Chromium trioxide\* | 1333-82-0 | 215-607-8 | Carcinogenic;  Mutagenic | 0.01 | ND |
| 46 | Acid generated from chromium trioxide and their oligomers: |  |  | Carcinogenic | 0.01 | ND |
| Chromic acid\* | 7738-94-5 | 231-801-5 |
| Dichromic acid\* | 13530-68-2 | 236-881-5 |
| Oligomers of chromic acid and dichromic acid\* |  |  |
| 47 | 2-Ethoxyethyl acetate | 111-15-9 | 203-839-2 | Toxic for reproduction | 0.005 | ND |
| 48 | Strontium Chromate\* | 7789-06-2 | 232-142-6 | Carcinogenic | 0.01 | ND |
| 49 | 1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl ester and linear alkyl ester | 68515-42-4 | 271-084-6 | Toxic for reproduction | 0.005 | ND |
| 50 | Hydrazine | 302-01-2  7803-57-8 | 206-114-9 | Carcinogenic | 0.005 | ND |
| 51 | 1-Methyl-2-pyrrolidone | 872-50-4 | 212-828-1 | Toxic for reproduction | 0.005 | ND |
| 52 | 1,2,3-trichloropropane | 96-18-4 | 202-486-1 | Toxic for reproduction | 0.005 | ND |
| 53 | 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl ester, C7-rich (DIHP) | 71888-89-6 | 276-158-1 | Toxic for reproduction | 0.005 | ND |
| 54 | Dichromium tris(chromate)\* | 24613-89-6 | 246-356-2 | Carcinogenic | 0.01 | ND |
| 55 | Potassium hydroxyoctaoxodizincatedi-chromate\* | 11103-86-9 | 234-329-8 | Carcinogenic | 0.01 | ND |
| 56 | Pentazinc chromate octahydroxide\* | 49663-84-5 | 256-418-0 | Carcinogenic | 0.01 | ND |
| 57 | Formaldehyde, oligomeric reaction products with aniline (technical MDA) | 25214-70-4 | 500-036-1 | Carcinogenic | 0.005 | ND |
| 58 | Bis(2-methoxyethyl) phthalate | 117-82-8 | 204-212-6 | Toxic for reproduction | 0.005 | ND |
| 59 | 2-Methoxyaniline;  o-Anisidine | 90-04-0 | 201-963-1 | Carcinogenic | 0.005 | ND |
| 60 | 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol) | 140-66-9 | 205-426-2 | Equivalent level of concern | 0.005 | ND |
| 61 | 1,2-Dichloroethane | 107-06-2 | 203-458-1 | Carcinogenic | 0.005 | ND |
| 62 | Bis(2-methoxyethyl) ether | 111-96-6 | 203-924-4 | Toxic for reproduction | 0.005 | ND |
| 63 | Arsenic acid\* | 7778-39-4 | 231-901-9 | Carcinogenic | 0.01 | ND |
| 64 | Calcium arsenate\* | 7778-44-1 | 231-904-5 | Carcinogenic | 0.01 | ND |
| 65 | Trilead diarsenate\* | 3687-31-8 | 222-979-5 | Carcinogenic; Toxic for reproduction | 0.01 | ND |
| 66 | N,N-dimethylacetamide (DMAC) | 127-19-5 | 204-826-4 | Toxic for reproduction | 0.005 | ND |
| 67 | 2,2’-dichloro-4,4’-methylenedianiline (MOCA) | 101-14-4 | 202-918-9 | Carcinogenic | 0.005 | ND |
| 68 | Phenolphthalein | 77-09-8 | 201-004-7 | Carcinogenic | 0.005 | ND |
| 69 | Lead azide, Lead diazide\* | 13424-46-9 | 236-542-1 | Toxic for reproduction | 0.01 | ND |
| 70 | Lead styphnate\* | 15245-44-0 | 239-290-0 | Toxic for reproduction | 0.01 | ND |
| 71 | Lead dipicrate\* | 6477-64-1 | 229-335-2 | Toxic for reproduction | 0.01 | ND |
| 72 | 1,2-bis(2-methoxyethoxy)ethane  (TEGDME; triglyme) | 112-49-2 | 203-977-3 | Toxic for reproduction | 0.005 | ND |
| 73 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | 203-794-9 | Toxic for reproduction | 0.005 | ND |
| 74 | Diboron trioxide\* | 1303-86-2 | 215-125-8 | Toxic for reproduction | 0.01 | ND |
| 75 | Formamide | 75-12-7 | 200-842-0 | Toxic for reproduction | 0.01 | ND |
| 76 | Lead(II) bis(methanesulfonate)\* | 17570-76-2 | 401-750-5 | Toxic for reproduction | 0.01 | ND |
| 77 | TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) § | 2451-62-9 | 219-514-3 | Mutagenic | 0.005 | ND |
| 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 | Mutagenic | 0.005 | ND |
| 79 | 4,4'-bis(dimethylamino)benzophenone  (Michler's ketone) | 90-94-8 | 202-027-5 | Carcinogenic | 0.005 | ND |
| 80 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline  (Michler's base) | 101-61-1 | 202-959-2 | Carcinogenic | 0.005 | ND |
| 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 | Carcinogenic | 0.005 | ND |
| 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 | Carcinogenic | 0.005 | ND |
| 83 | α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol  (C.I. Solvent Blue 4) | 6786-83-0 | 229-851-8 | Carcinogenic | 0.01 | ND |
| 84 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol | 561-41-1 | 209-218-2 | Carcinogenic | 0.005 | ND |
| 85 | Bis(pentabromophenyl) ether (DecaBDE) | 1163-19-5 | 214-604-9 | Persistent, bioaccumulative and toxic; very persistent and very bioaccumulative | 0.005 | ND |
| 86 | N,N-dimethylformamide;  dimethyl formamide | 68-12-2 | 200-679-5 | Toxic for reproduction | 0.005 | ND |
| 87 | Methoxy acetic acid | 625-45-6 | 210-894-6 | Toxic for reproduction ; equivalent level of concern | 0.005 | ND |
| 88 | Dibutyltin dichloride (DBT)ȸ | 683-18-1 | 211-670-0 | Toxic for reproduction | 0.01 | ND |
| 89 | 1,2-Diethoxyethane | 629-14-1 | 211-076-1 | Toxic for reproduction | 0.005 | ND |
| 90 | 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 | 201-604-9,  236-086-3,  238-009-9 | Equivalent level of concern | 0.01 | ND |
| 91 | 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 | Equivalent level of concern | 0.01 | ND |
| 92 | 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 | - | - | Equivalent level of concern | 0.005 | ND |
| 93 | Heptacosafluorotetradecanoic acid | 376-06-7 | 206-803-4 | Very persistent and very bioaccumulative | 0.005 | ND |
| 94 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear + | 84777-06-0 | 284-032-2 | Toxic for reproduction | 0.005 | ND |
| 95 | Henicosafluoroundecanoic acid | 2058-94-8 | 218-165-4 | Very persistent and very bioaccumulative | 0.005 | ND |
| 96 | N-pentyl-isopentylphtalate (iPnPP) + | 776297-69-9 | - | Toxic for reproduction | 0.005 | ND |
| 97 | Pentacosafluorotridecanoic acid | 72629-94-8 | 276-745-2 | Very persistent and very bioaccumulative | 0.005 | ND |
| 98 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues | - | - | Equivalent level of concern | 0.005 | ND |
| 99 | Tricosafluorododecanoic acid | 307-55-1 | 206-203-2 | Very persistent and very bioaccumulative | 0.005 | ND |
| 100 | Lead bis(tetrafluoroborate)\* | 13814-96-5 | 237-486-0 | Toxic for reproduction | 0.01 | ND |
| 101 | Lead tetroxide (orange lead)\* | 1314-41-6 | 215-235-6 | Toxic for reproduction | 0.01 | ND |
| 102 | Diethyl sulphate | 64-67-5 | 200-589-6 | Carcinogenic; Mutagenic | 0.005 | ND |
| 103 | Dinoseb | 88-85-7 | 201-861-7 | Toxic for reproduction | 0.005 | ND |
| 104 | Lead Titanium Zirconium Oxide\* | 12626-81-2 | 235-727-4 | Toxic for reproduction | 0.01 | ND |
| 105 | Acetic acid, lead salt, basic\* | 51404-69-4 | 257-175-3 | Toxic for reproduction | 0.01 | ND |
| 106 | Furan | 110-00-9 | 203-727-3 | Carcinogenic | 0.01 | ND |
| 107 | N-methylacetamide | 79-16-3 | 201-182-6 | Toxic for reproduction | 0.005 | ND |
| 108 | o-Toluidine;  2-Aminotoluene | 95-53-4 | 202-429-0 | Carcinogenic | 0.005 | ND |
| 109 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | 421-150-7 | Toxic for reproduction | 0.01 | ND |
| 110 | 4,4'-oxydianiline and its salts | 101-80-4 | 202-977-0 | Carcinogenic; Mutagenic | 0.005 | ND |
| 111 | [Phthalato(2-)]dioxotrilead (Dibasic lead phthalate)\* | 69011-06-9 | 273-688-5 | Toxic for reproduction | 0.01 | ND |
| 112 | Lead titanium trioxide\* | 12060-00-3 | 235-038-9 | Toxic for reproduction | 0.01 | ND |
| 113 | Lead oxide sulphate\* | 12036-76-9 | 234-853-7 | Toxic for reproduction | 0.01 | ND |
| 114 | Lead dinitrate\* | 10099-74-8 | 233-245-9 | Toxic for reproduction | 0.01 | ND |
| 115 | 4-Aminoazobenzene;  4-Phenylazoaniline | 60-09-3 | 200-453-6 | Carcinogenic | 0.005 | ND |
| 116 | Lead cyanamidate\* | 20837-86-9 | 244-073-9 | Toxic for reproduction | 0.01 | ND |
| 117 | Tetralead trioxide sulphate\* | 12202-17-4 | 235-380-9 | Toxic for reproduction | 0.01 | ND |
| 118 | 4-methyl-m-phenylenediamine (2,4-toluene-diamine) | 95-80-7 | 202-453-1 | Carcinogenic | 0.005 | ND |
| 119 | Pyrochlore, antimony lead yellow\* | 8012-00-8 | 232-382-1 | Toxic for reproduction | 0.01 | ND |
| 120 | Trilead bis(carbonate)dihydroxide (basic lead carbonate)\* | 1319-46-6 | 215-290-6 | Toxic for reproduction | 0.01 | ND |
| 121 | Dimethyl sulphate | 77-78-1 | 201-058-1 | Carcinogenic | 0.005 | ND |
| 122 | Dioxobis(stearato)trilead\* | 12578-12-0 | 235-702-8 | Toxic for reproduction | 0.01 | ND |
| 123 | Silicic acid, barium salt, lead-doped\* | 68784-75-8 | 272-271-5 | Toxic for reproduction | 0.01 | ND |
| 124 | Biphenyl-4-ylamine | 92-67-1 | 202-177-1 | Carcinogenic | 0.005 | ND |
| 125 | Lead oxide (lead monoxide)\* | 1317-36-8 | 215-267-0 | Toxic for reproduction | 0.01 | ND |
| 126 | Pentalead tetraoxide sulphate\* | 12065-90-6 | 235-067-7 | Toxic for reproduction | 0.01 | ND |
| 127 | Propylene oxide;  1,2-epoxypropane; methyloxirane | 75-56-9 | 200-879-2 | Carcinogenic; Mutagenic | 0.01 | ND |
| 128 | Silicic acid, lead salt\* | 11120-22-2 | 234-363-3 | Toxic for reproduction | 0.01 | ND |
| 129 | Trilead dioxide phosphonate\* | 12141-20-7 | 235-252-2 | Toxic for reproduction | 0.01 | ND |
| 130 | o-aminoazotoluene | 97-56-3 | 202-591-2 | Carcinogenic | 0.005 | ND |
| 131 | 1-bromopropane | 106-94-5 | 203-445-0 | Toxic for reproduction | 0.01 | ND |
| 132 | 6-methoxy-m-toluidine (p-cresidine) | 120-71-8 | 204-419-1 | Carcinogenic | 0.005 | ND |
| 133 | 4,4'-methylenedi-o-toluidine | 838-88-0 | 212-658-8 | Carcinogenic | 0.005 | ND |
| 134 | Tetraethyllead\* | 78-00-2 | 201-075-4 | Toxic for reproduction | 0.01 | ND |
| 135 | Sulfurous acid, lead salt, dibasic\* | 62229-08-7 | 263-467-1 | Toxic for reproduction | 0.01 | ND |
| 136 | Fatty acids, C16-18, lead salts\* | 91031-62-8 | 292-966-7 | Toxic for reproduction | 0.01 | ND |
| 137 | Diisopentylphthalate + | 605-50-5 | 210-088-4 | Toxic for reproduction | 0.005 | ND |
| 138 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | 204-650-8 | Equivalent level of concern | 0.01 | ND |
| 139 | Cadmium\* | 7440-43-9 | 231-152-8 | Carcinogenic; Equivalent level of concern | 0.01 | ND |
| 140 | Cadmium oxide\* | 1306-19-0 | 215-146-2 | Carcinogenic; Equivalent level of concern | 0.01 | ND |
| 141 | Dipentyl phthalate (DPP) + | 131-18-0 | 205-017-9 | Toxic for reproduction | 0.005 | ND |
| 142 | 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] | - | - | Equivalent level of concern | 0.005 | ND |
| 143 | Ammonium pentadecafluorooctanoate (APFO) ≠ | 3825-26-1 | 223-320-4 | Toxic for reproduction; PBT | 0.005 | ND |
| 144 | Pentadecafluorooctanoic acid (PFOA) ≠ | 335-67-1 | 206-397-9 | Toxic for reproduction; PBT | 0.005 | ND |
| 145 | Cadmium sulphide\* | 1306-23-6 | 215-147-8 | Carcinogenic; Equivalent level of concern | 0.01 | ND |
| 146 | Dihexyl phthalate | 84-75-3 | 201-559-5 | Toxic for reproduction | 0.005 | ND |
| 147 | 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 | Carcinogenic | 0.005 | ND |
| 148 | Disodium 4-amino-3-[[4'-[(2,4diaminophenyl)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 | Carcinogenic | 0.005 | ND |
| 149 | Imidazolidine-2-thione  (2-imidazoline-2-thiol) | 96-45-7 | 202-506-9 | Toxic for reproduction | 0.005 | ND |
| 150 | Lead di(acetate)\* | 301-04-2 | 206-104-4 | Toxic for reproduction | 0.01 | ND |
| 151 | Trixylyl phosphate | 25155-23-1 | 246-677-8 | Toxic for reproduction | 0.005 | ND |
| 152 | Cadmium chloride\* | 10108-64-2 | 233-296-7 | Carcinogenic;  Mutagenic;  Toxic for Reproduction;  Equivalent level of concern having probable serious effects to human health | 0.01 | ND |
| 153 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear++ | 68515-50-4 | 271-093-5 | Toxic for reproduction | 0.005 | ND |
| 154 | Sodium peroxometaborate\* | 7632-04-4 | 231-556-4 | Toxic for reproduction | 0.01 | ND |
| 155 | Sodium perborate; perboric acid, sodium salt\* | - | 239-172-9;  234-390-0 | Toxic for reproduction | 0.01 | ND |
| 156 | Cadmium fluoride \* | 7790-79-6 | 232-222-0 | Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health | 0.01 | ND |
| 157 | Cadmium sulphate \* | 10124-36-4; 31119-53-6 | 233-331-6 | Carcinogenic; Mutagenic; Toxic for Reproduction; Equivalent level of concern having probable serious effects to human health | 0.01 | ND |
| 158 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol  (UV-320) | 3846-71-7 | 223-346-6 | PBT;  vPvB | 0.005 | ND |
| 159 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) | 25973-55-1 | 247-384-8 | PBT;  vPvB | 0.005 | ND |
| 160 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)ȸ | 15571-58-1 | 239-622-4 | Toxic for Reproduction | 0.01 | ND |
| 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)ȸ | - | - | Toxic for Reproduction | 0.01 | ND |
| 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 | Toxic for reproduction | 0.01 | ND |
| 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 isomers of [1] and [2] or any combination thereof] | - | - | vPvB | 0.01 | ND |
| 164 | 1,3-propanesultone | 1120-71-4 | 214-317-9 | Carcinogenic | 0.005 | ND |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) | 3864-99-1 | 223-383-8 | vPvB | 0.005 | ND |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 36437-37-3 | 253-037-1 | vPvB | 0.005 | ND |
| 167 | Nitrobenzene | 98-95-3 | 202-716-0 | Toxic for reproduction | 0.005 | ND |
| 168 | Perfluorononan-1-oic acid acid and its sodium and ammonium salts | 375-95-1; 21049-39-8; 4149-60-4 | 206-801-3 | Toxic for reproduction; PBT | 0.005 | ND |
| 169 | Benzo[def]chrysene  (Benzo[a]pyrene) | 50-32-8 | 200-028-5 | Carcinogenic; Mutagenic; Toxic for Reproduction;  PBT; vPvB | 0.005 | ND |
| 170 | 4,4’-isopropylidenediphenol (bisphenol A; BPA) | 80-05-7 | 201-245-8 | Toxic for reproduction; Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 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](4-Hpbl) | - | - | Equivalent level of concern having probable serious effects to the environment | 0.005 | ND |
| 172 | Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts | 3830-45-3,  335-76-2,  3108-42-7 | -,  206-400-3,  221-470-5 | Toxic for reproduction; PBT | 0.005 | ND |
| 173 | p-(1,1-dimethylpropyl)phenol (PTAP) | 80-46-6 | 201-280-9 | Equivalent level of concern having probable serious effects to the environment | 0.005 | ND |
| 174 | Perfluorohexane-1-sulphonic acid and its salts (PFHxS) | - | - | vPvB | 0.005 | ND |
| 175 | 1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo  [12.2.1.16,9.02,13.05,10]  octadeca-7,15-diene (“Dechlorane Plus”TM) [covering any of its individual anti- and syn-isomers or any combination thereof] | - | - | vPvB (Article 57e) | 0.005 | ND |
| 176 | Benz[a]anthracene | 56-55-3 | 200-280-6 | Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e) | 0.005 | ND |
| 177 | Cadmium nitrate | 10325-94-7 | 233-710-6 | Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health) | 0.005 | ND |
| 178 | Cadmium carbonate | 513-78-0 | 208-168-9 | Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health) | 0.005 | ND |
| 179 | Cadmium hydroxide | 21041-95-2 | 244-168-5 | Carcinogenic (Article 57a) Mutagenic (Article 57b) Specific target organ toxicity after repeated exposure (Article 57(f) - human health) | 0.005 | ND |
| 180 | Chrysene | 218-01-9 | 205-923-4 | Carcinogenic (Article 57a) PBT (Article 57d) vPvB (Article 57e) | 0.005 | ND |
| 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] | - | - | Endocrine disrupting properties (Article 57(f) – environment) | 0.005 | ND |
| 182 | Octamethylcyclotetrasiloxane (D4) | 556-67-2 | 209-136-7 | PBT; vPvB | 0.005 | ND |
| 183 | Decamethylcyclopentasiloxane (D5) | 541-02-6 | 208-764-9 | PBT;  vPvB | 0.005 | ND |
| 184 | Dodecamethylcyclohexasiloxane (D6) | 540-97-6 | 208-762-8 | PBT; vPvB | 0.005 | ND |
| 185 | Lead | 7439-92-1 | 231-100-4 | Toxic for reproduction | 0.005 | ND |
| 186 | Disodium octaborate | 12008-41-2 | 234-541-0 | Toxic for reproduction | 0.005 | ND |
| 187 | Benzo[ghi]perylene | 191-24-2 | 205-883-8 | PBT;  vPvB | 0.005 | ND |
| 188 | Terphenyl hydrogenated | 61788-32-7 | 262-967-7 | vPvB | 0.005 | ND |
| 189 | Ethylenediamine (EDA) | 107-15-3 | 203-468-6 | Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 190 | Benzene-1,2,4- tricarboxylic acid 1,2 anhydride (TMA) | 552-30-7 | 209-008-0 | Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 191 | Dicyclohexyl phthalate (DCHP) | 84-61-7 | 201-545-9 | Toxic for reproduction;  Equivalent level of concern having probable serious effects to human health | 0.005 | ND |
| 192 | 2,2-bis(4'-hydroxyphenyl)-4-methylpentane | 6807-17-6 | 401-720-1 | Toxic for reproduction | 0.005 | ND |
| 193 | Benzo[k]fluoranthene | 207-08-9 | 205-916-6 | Carcinogenic; PBT; vPvB | 0.005 | ND |
| 194 | Fluoranthene | 206-44-0 | 205-912-4 | PBT; vPvB | 0.005 | ND |
| 195 | Phenanthrene | 85-01-8 | 201-581-5 | vPvB | 0.005 | ND |
| 196 | Pyrene | 129-00-0 | 204-927-3 | PBT; vPvB | 0.005 | ND |
| 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 | Equivalent level of concern having probable serious effects to the environment | 0.005 | ND |
| 198 | 2-methoxyethyl acetate | 110-49-6 | 203-772-9 | Toxic for reproduction | 0.005 | ND |
| 199 | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) | - | - | Equivalent level of concern having probable serious effects to the environment | 0.005 | ND |
| 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) | - | - | Equivalent level of concern having probable serious effects on the environment & human health | 0.005 | ND |
| 201 | 4-tert-butylphenol  (PTBP) | 98-54-4 | 202-679-0 | Equivalent level of concern having probable serious effects to the environment | 0.005 | ND |
| 202 | 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 119313-12-1 | 404-360-3 | Toxic for reproduction | 0.005 | ND |
| 203 | 2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one | 71868-10-5 | 400-600-6 | Toxic for reproduction | 0.005 | ND |
| 204 | Diisohexyl phthalate | 71850-09-4 | 276-090-2 | Toxic for reproduction | 0.005 | ND |
| 205 | Perfluorobutane sulfonic acid (PFBS) and its salts | - | - | Equivalent level of concern having probable serious effects on the environment and human health | 0.005 | ND |
| 206 | 1-vinylimidazole | 1072-63-5 | 214-012-0 | Toxic for reproduction | 0.005 | ND |
| 207 | 2-methylimidazole | 693-98-1 | 211-765-7 | Toxic for reproduction | 0.005 | ND |
| 208 | Butyl 4-hydroxybenzoate  (Butylparaben) | 94-26-8 | 202-318-7 | Equivalent level of concern having probable serious effects on the human health | 0.005 | ND |
| 209 | Dibutylbis(pentane-2,4-dionato-O,O')tin | 22673-19-4 | 245-152-0 | Toxic for reproduction | 0.010 | ND |
| 210 | bis(2-(2-methoxyethoxy)ethyl) ether | 143-24-8 | 205-594-7 | Toxic for reproduction | 0.01 | ND |
| 211 | Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety | - | - | Toxic for reproduction | 0.01 | ND |
| 212 | 1,4-dioxane | 123-91-1 | 204-661-8 | Carcinogenic;  Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 213 | 2,2-bis(bromomethyl) propane1,3-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 | Carcinogenic | 0.01 | ND |
| 214 | 2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers | - | - | Toxic for reproduction | 0.01 | ND |
| 215 | 4,4'-(1-methylpropylidene)bisphenol; (bisphenol B) | 77-40-7 | 201-025-1 | Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 216 | Glutaral | 111-30-8 | 203-856-5 | Equivalent level of concern having probable serious effects on human health | 0.01 | ND |
| 217 | Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17] | - | - | PBT;  vPvB | 0.01 | ND |
| 218 | Orthoboric acid, sodium salt | 13840-56-7 | 237-560-2 | Toxic for reproduction | 0.01 | ND |
| 219 | Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) | - | - | Toxic for reproduction;  Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 220 | (±)-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) | - | - | Equivalent level of concern having probable serious effects on human health | 0.05 | ND |
| 221 | 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC) | 119-47-1 | 204-327-1 | Toxic for reproduction | 0.05 | ND |
| 222 | 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 | PBT | 0.05 | ND |
| 223 | tris(2-methoxyethoxy) vinylsilane | 1067-53-4 | 213-934-0 | Toxic for reproduction | 0.05 | ND |
| 224 | [N-(hydroxymethyl) acrylamide](https://echa.europa.eu/substance-information/-/substanceinfo/100.011.913) | 924-42-5 | 213-103-2 | Carcinogenic;  Mutagenic | 0.05 | ND |
| 225 | 1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene](BTBPE) | 37853-59-1 | 253-692-3 | vPvB | 0.01 | ND |
| 226 | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol)(TBBPA) | 79-94-7 | 201-236-9 | Carcinogenic | 0.01 | ND |
| 227 | 4,4'-sulphonyldiphenol(Bisphenol S, BPS) | 80-09-1 | 201-250-5 | Toxic for reproduction; Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 228 | Barium diborontetraoxide | 13701-59-2 | 237-222-4 | Toxic for reproduction | 0.01 | ND |
| 229 | Bis(2-ethylhexyl) tetrabromophthalate(TBPH) | - | - | vPvB | 0.01 | ND |
| 230 | Isobutyl 4-hydroxybenzoate(Isobutylparaben) | 4247-02-3 | 224-208-8 | Equivalent level of concern having probable serious effects on human health | 0.01 | ND |
| 231 | Melamine | 108-78-1 | 203-615-4 | Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 232 | Perfluoroheptanoicacid (PFHpA) and its salts | - | - | Toxic for reproduction; PBT; vPvB; Equivalent level of concern having probable serious effects on the environment & human health | 0.01 | ND |
| 233 | reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholineand 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine | - | 473-390-7 | vPvB | 0.01 | ND |
| 234 | Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 75980-60-8 | 278-355-8 | Suspected to be Toxic to Reproduction;  A majority of data submitters agree this substance is Skin sensitising | 0.01 | ND |
| 235 | Bis(4-chlorophenyl) sulphone | 80-07-9 | 201-247-9 | Under assessment as Persistent, Bioaccumulative and Toxic | 0.01 | ND |

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| (1) CAS no. 7789-12-0 refers to sodium dichromate dehydrate. |
| (2) CAS no. 10588-01-9 refers to anhydrous sodium dichromate. |
| (3) CAS no. 3194-55-6 refers to a specific HBCDD - 1, 2, 5, 6, 9, 10-hexabromocyclododecane. |
| (4) CAS no. 25637-99-4 refers to unspecific HBCDD isomer composition. |
| (5) CAS no. 1330-43-4 refers to disodium tetraborate, anhydrous. |
| (6) CAS no. 12179-04-3 refers to sodium tetraborate, pentahydrate. |
| (7) CAS no. 1303-96-4 refers to sodium tetraborate, decahydrate. |

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| Method: | Analysis is based on GC, LC, IC, ICP, with various detection techniques and UV. |

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| Remark: | 1. | PBT = Persistent, bio accumulative and toxic as defined in Regulation (EC) No 1907/2006. |
|  | 2. | vPvB = Very persistent and very bio accumulative as defined in Regulation (EC) No 1907/2006. |
|  | 3. | ND = Not Detected. |
|  | 4. | # = Reference with client information(attachment\_), \_haven’t been tested and consider as ND |
|  | 5. | \*Result is based on the heavy metal or inorganic element concentration. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain. |
|  | 6. | \*\*Result is identified by tributyltin (TBT). Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain. |
|  | 7. | §TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) and β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)are reported as a mixture. |
|  | 8. | aRefer to Aluminosilicate, Refractory Ceramic Fibres fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight. |
|  | 9. | bRefer to Zirconia Aluminosilicate, Refractory Ceramic Fibres fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na2O+K2O+CaO+MgO+BaO) content less or equal to 18% by weight. |
|  | 10. | +[1,2-Benzenedicarboxylic acid, dipentylester, branched and linear] is a mixture of phthalates contains DPP, DIPP and N-pentyl-isopentylphtalate. |
|  | 11. | ≠PFOA and APFO are reported together. The result is based on PFOA concentration. Due to the limit of the analytical technology available, any further investigation is not feasible. The client is strongly advised to review the chemical formulation to ascertain. |
|  | 12. | ++[1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear] is a mixture of phthalates contains dihexyl phthalate. |
|  | 13. | ȸResult is based on the tin metal concentration, and further confirmation for checking DBT, DOTE & MOTE concentration. |

Note:

1. The limit of 0.1% (w/w) applies to an article. The results were calculated assuming as the submitted sample was an article. However, the results may not be applicable if the intended use of the sample is a substance or mixture. According to REACH, definition of an article, substance and mixture are:
2. Article *-* An object during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition
3. Substance - A chemical element and its compound in the natural state or obtained by any manufacturing process
4. Mixture (Previously known as “Preparation”) - A mixture or solution composed of two or more substances
   1. In accordance of Article 7 of Regulation (EC) No. 1907/2006 (REACH regulation) – Registration and notification of substances in articles, any producer or importer of articles shall notify ECHA, if a substance meets in criteria in Article 57 and is identified in accordance with Article 59(1), if both (1) the substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year & (2) the substance is present in those articles above a concentration of 0.1% weight by weight (w/w) are met. The information to be notified shall include (a) identity and contact details of the producer or importer, (b) the registration numbers, (c) the identity of the substance and (d) the classification of the substance, (e) a brief description of the use of the substance and (f) the tonnage range of the substance.
   2. In accordance of Article 33 of Regulation (EC) No. 1907/2006 (REACH regulation) – Duty to communicate information on substances in articles, any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in concentration above 0.1% weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance. On request by a consumer the relevant information shall be provided by any supplier of an article free of charge, within 45 days of receipt of the request.

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| **Photo of the Submitted Sample** |

텍스트, 무기, 실내이(가) 표시된 사진

자동 생성된 설명

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| **Test Flowchart of SVHC Content** |
| Sample      Sample Preparation  - Cutting  - Weight        Report  Data  Analysis was performed by  ICP-OES, UV-VIS, GC/MS, GC/ECD and PLM  Sample pretreated  acid digestion and  solvent extraction |

- End of Report -