



**BUREAU
VERITAS**

TEST REPORT

Technical Report: (5214)099-0537

April 17, 2014

Date Received: April 9, 2014

Page 1 of 13

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Innovax Manufacturing Company
Unit 711, 712 & 715, 7/fl, Block B, Alexandra Ind. Bldg,
23-27 Wing Hong St., Lai Chi Kok, Kowloon, Hong Kong

Sample Description: Sample(s) received is/are stated to be:
Metal fasteners (metal badge and buttons type)

| | | | |
|-----------------------|---------------------------------|-------------------------|-------------------------------|
| Color: | Electroplated assorted colors | Manufacturer: | Innovax Manufacturing Company |
| Test Category: | Product Test | Age Group: | / |
| A-Tex Order Location: | HK and Europe | Style No(s): | / |
| A-Tex Product Code: | / | PO No.: | / |
| Test Period: | April 15, 2014 – April 17, 2014 | Retest No.: | / |
| Country of Origin: | China | Country of Destination: | European Countries |
| Accessibility: | Indirect Skin Contact | | |
| Fiber Content: | / | | |

SUMMARY OF TEST RESULTS

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

REMARK

If there are questions or concerns on this report, please contact:

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BUREAU VERITAS HONG KONG LIMITED

DR. ALEX HUI
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ATEXL

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Photo of the Submitted Sample



TEST RESULT

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 Item 1: | Golden plated silvery metal (badge) |
|--------------|-------------------------------------|

| No. | Substance name | CAS No. | EC No. | Result, % | Detection Limit, % | Basis for identification as a SVHC |
|-----|---|--|-------------------------|-----------|--------------------|---|
| | | | | 1 | | |
| 1 | Triethyl arsenate* | 15606-95-8 | 427-700-2 | ND | 0.01 | Carcinogenic |
| 2 | Anthracene | 120-12-7 | 204-371-1 | ND | 0.005 | PBT |
| 3 | 4,4'-Diaminodiphenyl methane (MDA) | 101-77-9 | 202-974-4 | ND | 0.005 | Carcinogenic |
| 4 | Dibutyl phthalate (DBP) | 84-74-2 | 201-557-4 | ND | 0.005 | Toxic for reproduction |
| 5 | Cobalt dichloride* | 7646-79-9 | 231-589-4 | ND | 0.01 | Carcinogenic |
| 6 | Diarsenic pentaoxide* | 1303-28-2 | 215-116-9 | ND | 0.01 | Carcinogenic |
| 7 | Diarsenic trioxide* | 1327-53-3 | 215-481-4 | ND | 0.01 | Carcinogenic |
| 8 | Sodium dichromate* | 7789-12-0 ⁽¹⁾ ; 10588-01-9 ⁽²⁾ | 234-190-3 | ND | 0.01 | Carcinogenic; Mutagenic; Toxic for reproduction |
| 9 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 81-15-2 | 201-329-4 | ND | 0.005 | vPvB |
| 10 | Bis (2-ethylhexyl) phthalate (DEHP) | 117-81-7 | 204-211-0 | ND | 0.005 | Toxic for reproduction |
| 11 | Hexabromo cyclododecane (HBCDD) and all major diastereoisomers identified: α - HBCDD β - HBCDD γ - HBCDD | 3194-55-6 ⁽³⁾ ; 25637-99-4 ⁽⁴⁾ 134237-50-6 134237-51-7 134237-52-8 | 247-148-4, 221-695-9 | ND | 0.005 | PBT |
| 12 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) (SCCP) | 85535-84-8 | 287-476-5 | ND | 0.01 | PBT, vPvB |
| 13 | Bis(tributyltin)oxide (TBTO)** | 56-35-9 | 200-268-0 | ND | 0.005 | PBT |
| 14 | Lead hydrogen arsenate* | 7784-40-9 | 232-064-2 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 15 | Benzyl butyl phthalate (BBP) | 85-68-7 | 201-622-7 | ND | 0.005 | Toxic for reproduction |
| 16 | 2,4-Dinitrotoluene | 121-14-2 | 204-450-0 | ND | 0.005 | Carcinogenic |
| 17 | Anthracene oil | 90640-80-5 | 292-602-7 | ND | 0.01 | Carcinogenic, PBT, vPvB |
| 18 | Anthracene oil, anthracene paste, distn. Lights | 91995-17-4 | 295-278-5 | ND | 0.01 | Carcinogenic; Mutagenic, PBT, vPvB |
| 19 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | 295-275-9 | ND | 0.01 | Carcinogenic; Mutagenic, PBT, vPvB |
| 20 | Anthracene oil, anthracene-low | 90640-82-7 | 292-604-8 | ND | 0.01 | Carcinogenic; Mutagenic, PBT, vPvB |

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| No. | Substance name | CAS No. | EC No. | Result, % | Detection Limit, % | Basis for identification as a SVHC |
|-----|---|---|-----------------------|-----------|--------------------|---|
| | | | | 1 | | |
| 21 | Anthracene oil, anthracene paste | 90640-81-6 | 292-603-2 | ND | 0.01 | Carcinogenic; Mutagenic, PBT, vPvB |
| 22 | Diisobutyl phthalate | 84-69-5 | 201-553-2 | ND | 0.005 | Toxic for reproduction |
| 23 | Aluminosilicate, Refractory Ceramic Fibres ^{*a} | Index no. 650-017-00-8 | | ND | 0.01 | Carcinogenic |
| 24 | Zirconia Aluminosilicate, Refractory Ceramic Fibres ^{*b} | Index no. 650-017-00-8 | | ND | 0.01 | Carcinogenic |
| 25 | Lead chromate* | 7758-97-6 | 231-846-0 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 26 | Lead chromate molybdate sulfate red (C.I. Pigment Red 104)* | 12656-85-8 | 235-759-9 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 27 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)* | 1344-37-2 | 215-693-7 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 28 | Tris(2-chloroethyl) phosphate | 115-96-8 | 204-118-5 | ND | 0.005 | Toxic for reproduction |
| 29 | Coal tar pitch, high temperature | 65996-93-2 | 266-028-2 | ND | 0.01 | Carcinogenic, PBT, vPvB |
| 30 | Acrylamide | 79-06-1 | 201-173-7 | ND | 0.005 | Carcinogenic; Mutagenic |
| 31 | Trichloroethylene | 79-01-6 | 201-167-4 | ND | 0.005 | Carcinogenic |
| 32 | Boric acid* | 10043-35-3, 11113-50-1 | 233-139-2 / 234-343-4 | ND | 0.01 | Toxic for reproduction |
| 33 | Disodium tetraborate, anhydrous* | 1330-43-4 ⁽⁵⁾ , 12179-04-3 ⁽⁶⁾ , 1303-96-4 ⁽⁷⁾ | 215-540-4 | ND | 0.01 | Toxic for reproduction |
| 34 | Tetraboron disodium heptaoxide, hydrate* | 12267-73-1 | 235-541-3 | ND | 0.01 | Toxic for reproduction |
| 35 | Sodium chromate* | 7775-11-3 | 231-889-5 | ND | 0.01 | Carcinogenic; Mutagenic; Toxic for reproduction |
| 36 | Potassium chromate* | 7789-00-6 | 232-140-5 | ND | 0.01 | Carcinogenic; Mutagenic |
| 37 | Ammonium dichromate* | 7789-09-5 | 232-143-1 | ND | 0.01 | Carcinogenic; Mutagenic; Toxic for reproduction |
| 38 | Potassium dichromate* | 7778-50-9 | 231-906-6 | ND | 0.01 | Carcinogenic; Mutagenic; Toxic for reproduction |
| 39 | Cobalt(II) sulphate* | 10124-43-3 | 233-334-2 | ND | 0.01 | Carcinogenic; Toxic for reproduction |

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|---|--|-----------------------|-----------|-----------|--------------------|---|
| | | | | 1 | | |
| 40 | Cobalt(II) dinitrate* | 10141-05-6 | 233-402-1 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 41 | Cobalt(II) carbonate* | 513-79-1 | 208-169-4 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 42 | Cobalt(II) diacetate* | 71-48-7 | 200-755-8 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 43 | 2-Methoxyethanol | 109-86-4 | 203-713-7 | ND | 0.005 | Toxic for reproduction |
| 44 | 2-Ethoxyethanol | 110-80-5 | 203-804-1 | ND | 0.005 | Toxic for reproduction |
| 45 | Chromium trioxide* | 1333-82-0 | 215-607-8 | ND | 0.01 | Carcinogenic; Mutagenic |
| 46 | Acid generated from chromium trioxide and their oligomers: | | | | | |
| | Chromic acid* | 7738-94-5 | 231-801-5 | ND | 0.01 | Carcinogenic |
| | 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 | ND | 0.005 | Toxic for reproduction |
| 48 | Strontium Chromate* | 7789-06-2 | 232-142-6 | ND | 0.01 | Carcinogenic |
| 49 | 1,2-benzenedicarboxylic acid, di-C7-11 branched alkyl ester and linear alkyl ester | 68515-42-4 | 271-084-6 | ND | 0.005 | Toxic for reproduction |
| 50 | Hydrazine | 302-01-2 7803-57-8 | 206-114-9 | ND | 0.005 | Carcinogenic |
| 51 | 1-Methyl-2-pyrrolidone | 872-50-4 | 212-828-1 | ND | 0.005 | Toxic for reproduction |
| 52 | 1,2,3-trichloropropane | 96-18-4 | 202-486-1 | ND | 0.005 | Toxic for reproduction |
| 53 | 1,2-benzenedicarboxylic acid, di-C6-8-branched alkyl ester, C7-rich (DIHP) | 71888-89-6 | 276-158-1 | ND | 0.005 | Toxic for reproduction |
| 54 | Dichromium tris(chromate)* | 24613-89-6 | 246-356-2 | ND | 0.01 | Carcinogenic |
| 55 | Potassium hydroxyoctaoxodizincated i-chromate* | 11103-86-9 | 234-329-8 | ND | 0.01 | Carcinogenic |
| 56 | Pentazine chromate octahydroxide* | 49663-84-5 | 256-418-0 | ND | 0.01 | Carcinogenic |
| 57 | Formaldehyde, oligomeric reaction products with aniline (technical MDA) | 25214-70-4 | 500-036-1 | ND | 0.005 | Carcinogenic |

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|-----|---|------------|-----------|-----------|--------------------|--------------------------------------|
| | | | | 1 | | |
| 58 | Bis(2-methoxyethyl) phthalate | 117-82-8 | 204-212-6 | ND | 0.005 | Toxic for reproduction |
| 59 | 2-Methoxyaniline; o-Anisidine | 90-04-0 | 201-963-1 | ND | 0.005 | Carcinogenic |
| 60 | 4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol) | 140-66-9 | 205-426-2 | ND | 0.005 | Equivalent level of concern |
| 61 | 1,2-Dichloroethane | 107-06-2 | 203-458-1 | ND | 0.005 | Carcinogenic |
| 62 | Bis(2-methoxyethyl) ether | 111-96-6 | 203-924-4 | ND | 0.005 | Toxic for reproduction |
| 63 | Arsenic acid* | 7778-39-4 | 231-901-9 | ND | 0.01 | Carcinogenic |
| 64 | Calcium arsenate* | 7778-44-1 | 231-904-5 | ND | 0.01 | Carcinogenic |
| 65 | Trilead diarsenate* | 3687-31-8 | 222-979-5 | ND | 0.01 | Carcinogenic; Toxic for reproduction |
| 66 | N,N-dimethylacetamide (DMAC) | 127-19-5 | 204-826-4 | ND | 0.005 | Toxic for reproduction |
| 67 | 2,2'-dichloro-4,4'-methylenedianiline (MOCA) | 101-14-4 | 202-918-9 | ND | 0.005 | Carcinogenic |
| 68 | Phenolphthalein | 77-09-8 | 201-004-7 | ND | 0.005 | Carcinogenic |
| 69 | Lead azide, Lead diazide* | 13424-46-9 | 236-542-1 | ND | 0.01 | Toxic for reproduction |
| 70 | Lead styphnate* | 15245-44-0 | 239-290-0 | ND | 0.01 | Toxic for reproduction |
| 71 | Lead dipicrate* | 6477-64-1 | 229-335-2 | ND | 0.01 | Toxic for reproduction |
| 72 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) | 112-49-2 | 203-977-3 | ND | 0.005 | Toxic for reproduction |
| 73 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4 | 203-794-9 | ND | 0.005 | Toxic for reproduction |
| 74 | Diboron trioxide* | 1303-86-2 | 215-125-8 | ND | 0.01 | Toxic for reproduction |
| 75 | Formamide | 75-12-7 | 200-842-0 | ND | 0.01 | Toxic for reproduction |
| 76 | Lead(II) bis(methanesulfonate)* | 17570-76-2 | 401-750-5 | ND | 0.01 | Toxic for reproduction |
| 77 | TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione) § | 2451-62-9 | 219-514-3 | ND | 0.005 | Mutagenic |
| 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 | ND | 0.005 | Mutagenic |

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|-----|--|-----------|-----------|-----------|--------------------|---|
| | | | | 1 | | |
| 79 | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone) | 90-94-8 | 202-027-5 | ND | 0.005 | Carcinogenic |
| 80 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base) | 101-61-1 | 202-959-2 | ND | 0.005 | Carcinogenic |
| 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 | ND | 0.005 | Carcinogenic |
| 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 | ND | 0.005 | Carcinogenic |
| 83 | α,α -Bis[4-(dimethylamino)phenyl]-4-(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) | 6786-83-0 | 229-851-8 | ND | 0.01 | Carcinogenic |
| 84 | 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol | 561-41-1 | 209-218-2 | ND | 0.005 | Carcinogenic |
| 85 | Bis(pentabromophenyl) ether (DecaBDE) | 1163-19-5 | 214-604-9 | ND | 0.005 | Persistent, bioaccumulative and toxic; very persistent and very bioaccumulative |
| 86 | N,N-dimethylformamide; dimethyl formamide | 68-12-2 | 200-679-5 | ND | 0.005 | Toxic for reproduction |
| 87 | Methoxy acetic acid | 625-45-6 | 210-894-6 | ND | 0.005 | Toxic for reproduction ; equivalent level of concern |
| 88 | Dibutyltin dichloride (DBT)* | 683-18-1 | 211-670-0 | ND | 0.01 | Toxic for reproduction |
| 89 | 1,2-Diethoxyethane | 629-14-1 | 211-076-1 | ND | 0.005 | Toxic for reproduction |

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|-----|--|---|---|-----------|--------------------|--|
| | | | | 1 | | |
| 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 | ND | 0.01 | Equivalent level of concern |
| 91 | Hexahydromethylphthalic anhydride, Hexahydro-4-methylphthalic anhydride, Hexahydro-1-methylphthalic anhydride, Hexahydro-3-methylphthalic 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 | ND | 0.01 | Equivalent level of concern |
| 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 | - | - | ND | 0.005 | Equivalent level of concern |
| 93 | Heptacosaf fluorotetradecanoic acid | 376-06-7 | 206-803-4 | ND | 0.005 | Very persistent and very bioaccumulative |
| 94 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear ⁺ | 84777-06-0 | 284-032-2 | ND | 0.005 | Toxic for reproduction |
| 95 | Henicosaf fluoroundecanoic acid | 2058-94-8 | 218-165-4 | ND | 0.005 | Very persistent and very bioaccumulative |
| 96 | N-pentyl-isopentylphthalate (iPnPP) ⁺ | 776297-69-9 | - | ND | 0.005 | Toxic for reproduction |
| 97 | Pentacosaf fluorotridecanoic acid | 72629-94-8 | 276-745-2 | ND | 0.005 | Very persistent and very bioaccumulative |
| 98 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - covering well-defined substances and UVCB substances, polymers and homologues | - | - | ND | 0.005 | Equivalent level of concern |
| 99 | Tricosaf fluorododecanoic acid | 307-55-1 | 206-203-2 | ND | 0.005 | Very persistent and very bioaccumulative |
| 100 | Lead bis(tetrafluoroborate)* | 13814-96-5 | 237-486-0 | ND | 0.01 | Toxic for reproduction |

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|-----|---|-------------|-----------|-----------|--------------------|------------------------------------|
| | | | | 1 | | |
| 101 | Lead tetroxide (orange lead)* | 1314-41-6 | 215-235-6 | ND | 0.01 | Toxic for reproduction |
| 102 | Diethyl sulphate | 64-67-5 | 200-589-6 | ND | 0.005 | Carcinogenic; Mutagenic |
| 103 | Dinoseb | 88-85-7 | 201-861-7 | ND | 0.005 | Toxic for reproduction |
| 104 | Lead Titanium Zirconium Oxide* | 12626-81-2 | 235-727-4 | ND | 0.01 | Toxic for reproduction |
| 105 | Acetic acid, lead salt, basic* | 51404-69-4 | 257-175-3 | ND | 0.01 | Toxic for reproduction |
| 106 | Furan | 110-00-9 | 203-727-3 | ND | 0.01 | Carcinogenic |
| 107 | N-methylacetamide | 79-16-3 | 201-182-6 | ND | 0.005 | Toxic for reproduction |
| 108 | o-Toluidine; 2-Aminotoluene | 95-53-4 | 202-429-0 | ND | 0.005 | Carcinogenic |
| 109 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 143860-04-2 | 421-150-7 | ND | 0.01 | Toxic for reproduction |
| 110 | 4,4'-oxydianiline and its salts | 101-80-4 | 202-977-0 | ND | 0.005 | Carcinogenic; Mutagenic |
| 111 | [Phthalato(2-)]dioxotrilead (Dibasic lead phthalate)* | 69011-06-9 | 273-688-5 | ND | 0.01 | Toxic for reproduction |
| 112 | Lead titanium trioxide* | 12060-00-3 | 235-038-9 | ND | 0.01 | Toxic for reproduction |
| 113 | Lead oxide sulphate* | 12036-76-9 | 234-853-7 | ND | 0.01 | Toxic for reproduction |
| 114 | Lead dinitrate* | 10099-74-8 | 233-245-9 | ND | 0.01 | Toxic for reproduction |
| 115 | 4-Aminoazobenzene; 4-Phenylazoaniline | 60-09-3 | 200-453-6 | ND | 0.005 | Carcinogenic |
| 116 | Lead cyanamidate* | 20837-86-9 | 244-073-9 | ND | 0.01 | Toxic for reproduction |
| 117 | Tetralead trioxide sulphate* | 12202-17-4 | 235-380-9 | ND | 0.01 | Toxic for reproduction |
| 118 | 4-methyl-m-phenylenediamine (2,4-toluene-diamine) | 95-80-7 | 202-453-1 | ND | 0.005 | Carcinogenic |
| 119 | Pyrochlore, antimony lead yellow* | 8012-00-8 | 232-382-1 | ND | 0.01 | Toxic for reproduction |
| 120 | Trilead bis(carbonate)dihydroxide (basic lead carbonate)* | 1319-46-6 | 215-290-6 | ND | 0.01 | Toxic for reproduction |
| 121 | Dimethyl sulphate | 77-78-1 | 201-058-1 | ND | 0.005 | Carcinogenic |
| 122 | Dioxobis(stearato)trilead* | 12578-12-0 | 235-702-8 | ND | 0.01 | Toxic for reproduction |
| 123 | Silicic acid, barium salt, lead-doped* | 68784-75-8 | 272-271-5 | ND | 0.01 | Toxic for reproduction |
| 124 | Biphenyl-4-ylamine | 92-67-1 | 202-177-1 | ND | 0.005 | Carcinogenic |
| 125 | Lead oxide (lead monoxide)* | 1317-36-8 | 215-267-0 | ND | 0.01 | Toxic for reproduction |
| 126 | Pentalead tetraoxide sulphate* | 12065-90-6 | 235-067-7 | ND | 0.01 | Toxic for reproduction |

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|-----|---|------------|-----------|-----------|--------------------|--|
| | | | | 1 | | |
| 127 | Propylene oxide; 1,2-epoxypropane; methyloxirane | 75-56-9 | 200-879-2 | ND | 0.01 | Carcinogenic; Mutagenic |
| 128 | Silicic acid, lead salt* | 11120-22-2 | 234-363-3 | ND | 0.01 | Toxic for reproduction |
| 129 | Trilead dioxide phosphonate* | 12141-20-7 | 235-252-2 | ND | 0.01 | Toxic for reproduction |
| 130 | o-aminoazotoluene | 97-56-3 | 202-591-2 | ND | 0.005 | Carcinogenic |
| 131 | 1-bromopropane | 106-94-5 | 203-445-0 | ND | 0.01 | Toxic for reproduction |
| 132 | 6-methoxy-m-toluidine (p-cresidine) | 120-71-8 | 204-419-1 | ND | 0.005 | Carcinogenic |
| 133 | 4,4'-methylenedi-o-toluidine | 838-88-0 | 212-658-8 | ND | 0.005 | Carcinogenic |
| 134 | Tetraethyllead* | 78-00-2 | 201-075-4 | ND | 0.01 | Toxic for reproduction |
| 135 | Sulfurous acid, lead salt, dibasic* | 62229-08-7 | 263-467-1 | ND | 0.01 | Toxic for reproduction |
| 136 | Fatty acids, C16-18, lead salts* | 91031-62-8 | 292-966-7 | ND | 0.01 | Toxic for reproduction |
| 137 | Diisopentylphthalate ⁺ | 605-50-5 | 210-088-4 | ND | 0.005 | Toxic for reproduction |
| 138 | Diazeno-1,2-dicarboxamide (C,C'-azodi(formamide)) | 123-77-3 | 204-650-8 | ND | 0.01 | Equivalent level of concern |
| 139 | Cadmium* | 7440-43-9 | 231-152-8 | ND | 0.01 | Carcinogenic; Equivalent level of concern |
| 140 | Cadmium oxide* | 1306-19-0 | 215-146-2 | ND | 0.01 | Carcinogenic; Equivalent level of concern |
| 141 | Dipentyl phthalate (DPP) ⁺ | 131-18-0 | 205-017-9 | ND | 0.005 | Toxic for reproduction |
| 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] | - | - | ND | 0.005 | Equivalent level of concern |
| 143 | Ammonium pentadecafluorooctanoate (APFO) [‡] | 3825-26-1 | 223-320-4 | ND | 0.005 | Toxic for reproduction; PBT |
| 144 | Pentadecafluorooctanoic acid (PFOA) [‡] | 335-67-1 | 206-397-9 | ND | 0.005 | Toxic for reproduction; PBT |

TEST RESULT

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

| No. | Substance name | CAS No. | EC No. | Result, % | Detection Limit, % | Basis for identification as a SVHC |
|-----|--|------------|-----------|-----------|--------------------|--|
| | | | | 1 | | |
| 145 | Cadmium sulphide | 1306-23-6 | 215-147-8 | ND | 0.01 | Carcinogenic; Equivalent level of concern |
| 146 | Dihexyl phthalate | 84-75-3 | 201-559-5 | ND | 0.005 | Toxic for reproduction |
| 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 | ND | 0.005 | Carcinogenic |
| 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 | 217-710-3 | ND | 0.005 | Carcinogenic |
| 149 | Imidazolidine-2-thione (2-imidazoline-2-thiol) | 96-45-7 | 202-506-9 | ND | 0.005 | Toxic for reproduction |
| 150 | Lead di(acetate) | 301-04-2 | 206-104-4 | ND | 0.01 | Toxic for reproduction |
| 151 | Trixylyl phosphate | 25155-23-1 | 246-677-8 | ND | 0.005 | Toxic for reproduction |

- (1) CAS no. 7789-12-0 refers to sodium dichromate dihydrate
(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

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

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. *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.
5. **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.
6. [§]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.
7. ^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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight.
8. ^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 ($\text{Na}_2\text{O}+\text{K}_2\text{O}+\text{CaO}+\text{MgO}+\text{BaO}$) content less or equal to 18% by weight.
9. ⁺[1,2-Benzenedicarboxylic acid, dipentylester, branched and linear] is a mixture of phthalates contains DPP, DIPP and N-pentyl-isopentylphthalate.
10. [≠]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.

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:
 - i. 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
 - ii. Substance - A chemical element and its compound in the natural state or obtained by any manufacturing process
 - iii. Mixture (Previously known as "Preparation") - A mixture or solution composed of two or more substances
2. 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.
3. 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.

END