

## Statement of compliance to REACH

PANJIT INTERNATIONAL INC. manufactures only products according to REACH. These products are not intended to release any harmful substance under normal and reasonable foreseeable conditions of usage. Based on Regulation (EC) No.1907/2006 Article 33 of REACH, we will continue to monitor developments of the REACH legislation and are committed to meeting our responsibilities for protection of the environment.

### Article 33:

1. Any supplier of an article containing a substance meeting the criteria in Article 57 (Definition of SVHC) and identified in accordance with Article 59(1) (dossier for SVHC) in a 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.
  
2. On request by a consumer any supplier of an article containing a substance meeting the criteria in Article 57(Definition of SVHC) and identified in accordance with Article 59(1) (dossier for SVHC) in a concentration above 0.1% weight by weight (w/w) shall provide the consumer with sufficient information, available to the supplier, to allow safe use of the article including as a minimum, the name of that substance.

The relevant information shall be provided, free of charge, within 45 days of receipt of the request.

### Annex I

#### Panjit products list regarding SVHC

| Package | Function    | PbO<br>Yes / No<br><small>(Weight of the part)</small> | B2O3<br>Yes / No<br><small>(Weight of the part)</small> | Pb<br>Yes / No<br><small>(Weight of the part)</small> |
|---------|-------------|--|---|---|
| DFN 2L  | TVS/ESD     | No   | No  | No  |
|         | SWITCHING   | No   | No  | No  |
|         | SCHOTTKY    | No   | No  | No  |
|         | ZENER       | No   | No  | No  |
| DFN 3L  | TVS/ESD     | No   | No  | No  |
|         | SWITCHING   | No   | No  | No  |
|         | MOSFET      | No   | No  | No  |
|         | Transistors | No   | No  | No  |
| SOD-123 | TVS/ESD     | No   | No  | No  |
|         | SWITCHING   | No   | No  | No  |
|         | SCHOTTKY    | No   | No  | No  |
|         | ZENER       | No   | No  | No  |

|           |             |       |    |        |
|-----------|-------------|-------|----|--------|
| SOD-323   | TVS/ESD     | No    | No | No     |
|           | SWITCHING   | No    | No | No     |
|           | SCHOTTKY    | No    | No | No     |
|           | PIN         | No    | No | No     |
|           | ZENER       | No    | No | No     |
| SOD-523   | TVS/ESD     | No    | No | No     |
|           | SWITCHING   | No    | No | No     |
|           | SCHOTTKY    | No    | No | No     |
|           | PIN         | No    | No | No     |
|           | ZENER       | No    | No | No     |
| SOD-723   | TVS/ESD     | No    | No | No     |
|           | SWITCHING   | No    | No | No     |
|           | SCHOTTKY    | No    | No | No     |
|           | PIN         | No    | No | No     |
|           | ZENER       | No    | No | No     |
| SOD-923   | TVS/ESD     | No    | No | No     |
|           | SWITCHING   | No    | No | No     |
|           | SCHOTTKY    | No    | No | No     |
| SOD-123FL | TVS         | 4.8%* | No | 92.5%* |
|           | SCHOTTKY    | No    | No | 92.5%* |
|           | ZENER       | 4.8%* | No | 92.5%* |
|           | General     | 4.8%* | No | 92.5%* |
|           | Fast        | 4.8%* | No | 92.5%* |
|           | Ultra Fast  | 4.8%* | No | 92.5%* |
|           | Super Fast  | 4.8%* | No | 92.5%* |
| SOD-123HE | SCHOTTKY    | No    | No | 92.5%* |
|           | General     | 4.8%* | No | 92.5%* |
| SOD-323HE | SCHOTTKY    | No    | No | 92.5%* |
|           | General     | 4.8%* | No | 92.5%* |
| SOT-23    | TVS/ESD     | No    | No | No     |
|           | SWITCHING   | No    | No | No     |
|           | MOSFET      | No    | No | No     |
|           | SCHOTTKY    | No    | No | No     |
|           | Transistors | No    | No | No     |
|           | PIN         | No    | No | No     |
|           | ZENER       | No    | No | No     |

|           |             |    |    |    |
|-----------|-------------|----|----|----|
| SOT-323   | TVS/ESD     | No | No | No |
|           | SWITCHING   | No | No | No |
|           | MOSFET      | No | No | No |
|           | SCHOTTKY    | No | No | No |
|           | Transistors | No | No | No |
|           | ZENER       | No | No | No |
| SOT-363   | TVS/ESD     | No | No | No |
|           | SWITCHING   | No | No | No |
|           | MOSFET      | No | No | No |
|           | SCHOTTKY    | No | No | No |
|           | SKY / ESD   | No | No | No |
|           | Transistors | No | No | No |
|           | ZENER       | No | No | No |
| SOT-23 6L | TVS/ESD     | No | No | No |
|           | SWITCHING   | No | No | No |
|           | SCHOTTKY    | No | No | No |
|           | SKY / ESD   | No | No | No |
|           | MOSFET      | No | No | No |
|           | Transistors | No | No | No |
| SOT-353   | TVS/ESD     | No | No | No |
| SOT-23 5L | TVS/ESD     | No | No | No |
| SOT-223   | Transistors | No | No | No |
|           | MOSFET      | No | No | No |
| SOT-523   | TVS/ESD     | No | No | No |
|           | SWITCHING   | No | No | No |
|           | MOSFET      | No | No | No |
|           | SCHOTTKY    | No | No | No |
|           | Transistors | No | No | No |
|           | ZENER       | No | No | No |
|           | ZENER ESD   | No | No | No |
| SOT-563   | TVS/ESD     | No | No | No |
|           | SWITCHING   | No | No | No |
|           | SCHOTTKY    | No | No | No |
|           | SKY / ESD   | No | No | No |
|           | Transistors | No | No | No |
| SOT-723   | MOSFET      | No | No | No |

|          |            |       |    |        |
|----------|------------|-------|----|--------|
| SOT-553  | TVS/ESD    | No    | No | No     |
| DO-218AC | TVS        | 4.8%* | No | 92.5%* |
| SC-59    | MOSFET     | No    | No | No     |
| SOT-143  | TVS/ESD    | No    | No | No     |
|          | PIN        | No    | No | No     |
| SOT-543  | TVS/ESD    | No    | No | No     |
| SMA      | General    | 4.8%* | No | 92.5%* |
|          | Fast       | 4.8%* | No | 92.5%* |
|          | Ultra Fast | 4.8%* | No | 92.5%* |
|          | Super Fast | 4.8%* | No | 92.5%* |
|          | TVS        | 4.8%* | No | 92.5%* |
|          | SCHOTTKY   | No    | No | 92.5%* |
|          | ZENER      | No    | No | 92.5%* |
| SMB      | General    | 4.8%* | No | 92.5%* |
|          | Fast       | 4.8%* | No | 92.5%* |
|          | Ultra Fast | 4.8%* | No | 92.5%* |
|          | Super Fast | 4.8%* | No | 92.5%* |
|          | TVS        | 4.8%* | No | 92.5%* |
|          | SCHOTTKY   | No    | No | 92.5%* |
|          | ZENER      | No    | No | 92.5%* |
| SMC      | General    | 4.8%* | No | 92.5%* |
|          | Fast       | 4.8%* | No | 92.5%* |
|          | Ultra Fast | 4.8%* | No | 92.5%* |
|          | Super Fast | 4.8%* | No | 92.5%* |
|          | TVS        | 4.8%* | No | 92.5%* |
|          | SCHOTTKY   | No    | No | 92.5%* |
|          | ZENER      | No    | No | 92.5%* |
| SMAF     | General    | 4.8%* | No | 92.5%* |
|          | Fast       | 4.8%* | No | 92.5%* |
|          | Ultra Fast | 4.8%* | No | 92.5%* |
|          | Super Fast | 4.8%* | No | 92.5%* |

|                |               |       |    |        |
|----------------|---------------|-------|----|--------|
|                | TVS           | 4.8%* | No | 92.5%* |
|                | SCHOTTKY      | No    | No | 92.5%* |
|                | ZENER         | No    | No | 92.5%* |
| SMBF           | General       | 4.8%* | No | 92.5%* |
|                | Fast          | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
|                | Super Fast    | 4.8%* | No | 92.5%* |
|                | TVS           | 4.8%* | No | 92.5%* |
|                | SCHOTTKY      | No    | No | 92.5%* |
|                | ZENER         | No    | No | 92.5%* |
| SMA(W)         | General       | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
|                | Fast          | 4.8%* | No | 92.5%* |
|                | SCHOTTKY      | No    | No | 92.5%* |
|                | Open Junction | No    | No | 92.5%* |
| TO-277/TO-277B | Super Fast    | 4.8%* | No | 92.5%* |
|                | Fast          | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
|                | MOSFET        | No    | No | 92.5%* |
|                | SCHOTTKY      | No    | No | 92.5%* |
| TO-220AB       | SCHOTTKY      | No    | No | 88%*   |
|                | Super Fast    | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
|                | MOSFET        | No    | No | 92.5%* |
| ITO-220AB      | SCHOTTKY      | No    | No | 88%*   |
|                | Super Fast    | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
| TO-220AC       | Fast          | 4.8%* | No | 92.5%* |
|                | Ultra Fast    | 4.8%* | No | 92.5%* |
|                | SCHOTTKY      | No    | No | 88%*   |
|                | Super Fast    | 4.8%* | No | 92.5%* |

|                   |            |       |    |        |
|-------------------|------------|-------|----|--------|
| ITO-220AC         | Ultra Fast | 4.8%* | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 88%*   |
|                   | Super Fast | 4.8%* | No | 92.5%* |
| D PAK(TO-252 )    | MOSFET     | No    | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 88%*   |
|                   | Super Fast | 4.8%* | No | 92.5%* |
| D 2 PAK(TO-263)   | MOSFET     | No    | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 88%*   |
|                   | Super Fast | No    | No | 92.5%* |
|                   | Fast       | No    | No | 92.5%* |
|                   | Ultra Fast | No    | No | 92.5%* |
| TO-3P (TO-247AD)  | SCHOTTKY   | No    | No | 88%*   |
| TO-3PS (TO-247S ) | SCHOTTKY   | No    | No | 88%*   |
| D PAK (TO-251AB ) | SCHOTTKY   | No    | No | 88%*   |
|                   | Super Fast | 4.8%* | No | 92.5%* |
| R-1               | Super Fast | 4.8%* | No | 92.5%* |
|                   | Fast       | 4.8%* | No | 92.5%* |
|                   | Ultra Fast | 4.8%* | No | 92.5%* |
|                   | General    | 4.8%* | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 92.5%* |
|                   | ZENER      | No    | No | 92.5%* |
| A-405             | Super Fast | 4.8%* | No | 92.5%* |
|                   | Fast       | 4.8%* | No | 92.5%* |
|                   | Ultra Fast | 4.8%* | No | 92.5%* |
|                   | General    | 4.8%* | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 92.5%* |
| DO-41             | ZENER      | No    | No | 92.5%* |
|                   | TVS        | 4.8%* | No | 92.5%* |
|                   | SCHOTTKY   | No    | No | 92.5%* |

|          |               |       |    |        |
|----------|---------------|-------|----|--------|
|          | Super Fast    | 4.8%* | No | 92.5%* |
|          | Fast          | 4.8%* | No | 92.5%* |
|          | Ultra Fast    | 4.8%* | No | 92.5%* |
|          | General       | 4.8%* | No | 92.5%* |
|          | Open Junction | No    | No | 92.5%* |
| DO-15    | ZENER         | No    | No | 92.5%* |
|          | TVS           | 4.8%* | No | 92.5%* |
|          | SCHOTTKY      | No    | No | 92.5%* |
|          | Super Fast    | 4.8%* | No | 92.5%* |
|          | Fast          | 4.8%* | No | 92.5%* |
|          | Ultra Fast    | 4.8%* | No | 92.5%* |
|          | General       | 4.8%* | No | 92.5%* |
|          | Open Junction | No    | No | 92.5%* |
| DO-201AD | General       | 4.8%* | No | 92.5%* |
|          | Fast          | 4.8%* | No | 92.5%* |
|          | Ultra Fast    | 4.8%* | No | 92.5%* |
|          | SCHOTTKY      | No    | No | 92.5%* |
|          | Super Fast    | 4.8%* | No | 92.5%* |
|          | Open Junction | No    | No | 92.5%* |
| DO-201AE | TVS           | 4.8%* | No | 92.5%* |
|          | ZENER         | No    | No | 92.5%* |
| P-600    | General       | 4.8%* | No | 92.5%* |
|          | Fast          | 4.8%* | No | 92.5%* |
|          | Ultra Fast    | 4.8%* | No | 92.5%* |
|          | SCHOTTKY      | No    | No | 92.5%* |
|          | Super Fast    | 4.8%* | No | 92.5%* |
|          | TVS           | 4.8%* | No | 92.5%* |
|          | Open Junction | No    | No | 92.5%* |
| DIP      | General       | 4.8%* | No | 92.5%* |
|          | Fast          | 4.8%* | No | 92.5%* |

|                   |            |         |    |        |
|-------------------|------------|---------|----|--------|
|                   | Ultra Fast | 4.8%*   | No | 92.5%* |
| SDIP              | General    | 4.8%*   | No | 92.5%* |
|                   | Fast       | 4.8%*   | No | 92.5%* |
|                   | Ultra Fast | 4.8%*   | No | 92.5%* |
| MDI               | General    | 4.8%*   | No | 92.5%* |
|                   | SCHOTTKY   | No      | No | 92.5%* |
| ABS               | General    | 20%*    | No | 92.5%* |
| MBF               | General    | 4.8%*   | No | 92.5%* |
| TDI(MICRO DIP)    | General    | 4.8%*   | No | 92.5%* |
|                   | SCHOTTKY   | No      | No | 92.5%* |
| KBU               | General    | 6.5%*   | No | 92.5%* |
| FL                | General    | 6.5%*   | No | 92.5%* |
| KBL               | General    | 6.5%*   | No | 92.5%* |
| GBU               | General    | 4.55%*  | No | 92.5%* |
| GBP               | General    | 8.0%*   | No | 92.5%* |
| KBPF              | General    | 6.5%*   | No | 92.5%* |
| GBJ               | General    | 8.0%*   | No | 92.5%* |
| KBJ               | General    | 4.55%*  | No | 92.5%* |
| RB-10/AM          | General    | 8.0%*   | No | 92.5%* |
| SBU               | General    | 8.0%*   | No | 92.5%* |
| GBL               | General    | 6.5%*   | No | 92.5%* |
| DO-34             | SWITCHING  | 61.35%* | 3% | No     |
|                   | ZENER      | 61.35%* | 3% | No     |
| DO-35             | SWITCHING  | 61.35%* | 3% | No     |
|                   | ZENER      | 61.35%* | 3% | No     |
| Mini Melf (LL-34) | SWITCHING  | 58%*    | No | No     |
|                   | ZENER      | 58%*    | No | No     |
|                   | SCHOTTKY   | 58%*    | No | No     |
| Micro Melf        | SWITCHING  | 61.35%* | 3% | No     |
|                   | ZENER      | 61.35%* | 3% | No     |
|                   | SCHOTTKY   | 61.35%* | 3% | No     |
| Quadro Melf       | SWITCHING  | 61.35%* | 3% | No     |
|                   | ZENER      | 61.35%* | 3% | No     |



|        |          |         |    |    |
|--------|----------|---------|----|----|
|        | SCHOTTKY | 61.35%* | 3% | No |
| DO-41G | ZENER    | 58%*    | No | No |
| DL-41  | ZENER    | 58%*    | No | No |

**\*Note1** : According to "Guidance for Annex V Exemptions from the obligation to register (ECHA-10-G-02-EN)" from "Regulation (EC) No 987/2008" and refer to the link below:  
[http://home.jeita.or.jp/ecb/pdf/PbO\\_glass\\_e.pdf](http://home.jeita.or.jp/ecb/pdf/PbO_glass_e.pdf)

PbO noted as the ceramic matrix and the chemical compound created is not a substance of Very High Concern (SVHC).

**\*Note2** : Refer to the following statement, no obligations should arise under REACH,  
 "Position paper no diboron trioxide(B<sub>2</sub>O<sub>3</sub>)under REACH":  
<http://www.zvei.org/Publikationen/Position%20paper%20on%20diboron%20trioxide.pdf>

B<sub>2</sub>O<sub>3</sub> is used as a base substance in production, but is not part of the finished product, the chemical compound created is not a substance of Very High Concern(SVHC).

**\*Note3** : Articles already covered by specific Union legislation regulating lead content or migration should, for reasons of consistency, be exempted.  
 Amending Annex XVII to Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals ('REACH') as regards lead and its compounds.

[https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L\\_.2015.104.01.0002.01.ENG](https://eur-lex.europa.eu/legal-content/EN/TXT/?uri=uriserv:OJ.L_.2015.104.01.0002.01.ENG)

## Annex II REACH SVHC list

The first list of SVHC (ECHA/PR/08/34)

Helsinki, 9 October 2008

| # | Substance name                    | CAS number              | EC number | Basis for Identification as a SVHC                                    |
|---|-----------------------------------|-------------------------|-----------|---|
| 1 | Anthracene                        | 120-12-7                | 204-371-1 | Persistent, bioaccumulative and toxic                                 |
| 2 | 4,4'-Diaminodiphenylmethane (MDA) | 101-77-9                | 202-974-4 | Carcinogen, cat.2   |
| 3 | Dibutyl phthalate (DBP)           | 84-74-2                 | 201-557-4 | Toxic for reproduction, cat.2   |
| 4 | Cobalt dichloride*                | 7646-79-9               | 231-589-4 | Carcinogen, cat.2   |
| 5 | Diarsenic pentaoxide*             | 1303-28-2               | 215-116-9 | Carcinogen, cat.1   |
| 6 | Diarsenic trioxide*               | 1327-53-3               | 215-481-4 | Carcinogen, cat.1   |
| 7 | Sodium dichromate                 | 7789-12-0<br>10588-01-9 | 234-190-3 | Carcinogen, cat.2;<br>Mutagen, cat.2<br>Toxic for reproduction, cat.2 |

|    |   |   |                        |  |
|----|---|---|------------------------|--|
| 8  | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)  | 81-15-2   | 201-329-4              | Very persistent and very bioaccumulative                                       |
| 9  | Bis (2-ethyl(hexyl)phthalate)   | 117-81-7  | 204-211-0              | Toxic for reproduction, cat.2  |
| 10 | Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified ( $\alpha$ – HBCDD, $\beta$ -HBCDD, $\gamma$ - | 25637-99-4<br>3194-55-6<br>(134237-51-7<br>134237-50-6,<br>134237-52-8) | 247-148-4<br>221-695-9 | Persistent, bioaccumulative and toxic  |
| 11 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)   | 85535-84-8  | 287-476-5              | Persistent, bioaccumulative and toxic Very persistent and very bioaccumulative |
| 12 | Bis(tributyltin)oxide   | 56-35-9   | 200-268-0              | Persistent, bioaccumulative and toxic  |
| 13 | Lead hydrogen arsenate*   | 7784-40-9   | 232-064-2              | Carcinogen, cat.1<br>Toxic for reproduction cat.1                              |
| 14 | Benzyl butyl phthalate (BBP)  | 85-68-7   | 201-622-7              | Toxic for reproduction, cat.2  |
| 15 | Triethyl arsenate   | 15606-95-8  | 427-700-2              | Carcinogen, cat.1  |

The second batch of SVHC list (ECHA/PR/09/12)

Helsinki, 01 September 2009

| #  | Substance name  | CAS number | EC number | Proposed SVHC property                                       |
|----|---|------------|-----------|--|
| 16 | Anthracene oil  | 90640-80-5 | 292-602-7 | Persistent, bioaccumulative and toxic                        |
| 17 | Anthracene oil, anthracene paste, distn. lights *     | 91995-17-4 | 295-278-5 | Persistent, bioaccumulative and toxic                        |
| 18 | Anthracene oil, anthracene paste, anthracene fraction | 91995-15-2 | 295-275-9 | Persistent, bioaccumulative and toxic                        |
| 19 | Anthracene oil, anthracene -low                       | 90640-82-7 | 292-604-8 | Persistent, bioaccumulative and toxic                        |
| 20 | Anthracene oil, anthracene paste                      | 90640-81-6 | 292-603-2 | Persistent, bioaccumulative and toxic                        |
| 21 | Diisobutyl phthalate                                  | 84-69-5    | 201-553-2 | Toxic for reproduction, category 2                           |
| 22 | 2,4-Dinitrotoluene                                    | 121-14-2   | 204-450-0 | Carcinogen, category 2                                       |
| 23 | Coal tar pitch, high temperature                      | 65996-93-2 | 266-028-2 | Persistent, bioaccumulative and toxic;carcinogen, category 2 |
| 24 | Tris(2-chloroethyl)phosphate                          | 115-96-8   | 204-118-5 | Toxic for reproduction, category 2                           |
| 25 | Lead sulfochromate yellow (C.I. Pigment Yellow 34)*** | 1344-37-2  | 215-693-7 | Carcinogen, category 2; toxic for reproduction, category 1   |

|    |  |            |           |  |
|----|--|------------|-----------|--|
| 26 | Lead chromate molybdate sulphate red (C.I. Pigment Red 104)*** | 12656-85-8 | 235-759-9 | Carcinogen, category 2; toxic for reproduction, category 1 |
| 27 | Lead chromate  | 7758-97-6  | 231-846-0 | Carcinogen, category 2; toxic for reproduction, category 1 |
| 28 | Acrylamide   | 79-06-1    | 201-173-7 | Carcinogen, category 2; mutagen, category 2                |

The third list of SVHC (ECHA/PR/10/12)

Helsinki, 18 June 2010

| #  | Substance name                          | CAS number                           | EC number              | Proposed SVHC property   |
|----|---|--------------------------------------|------------------------|--|
| 29 | Trichloroethylene                       | 79-01-6                              | 201-167-4              | Carcinogenic category 2  |
| 30 | Boric acid                              | 10043-35-3<br>11113-50-1             | 233-139-2<br>234-343-4 | Toxic for reproduction category 2  |
| 31 | Disodium tetraborate, anhydrous         | 1330-43-4<br>12179-04-3<br>1303-96-4 | 215-540-4              | Toxic for reproduction category 2  |
| 32 | Tetraboron disodium heptaoxide, hydrate | 12267-73-1                           | 235-541-3              | Toxic for reproduction category 2  |
| 33 | Sodium chromate                         | 7775-11-3                            | 231-889-5              | Carcinogen, category 2; mutagen, category 2; toxic for reproduction category 2 |
| 34 | Potassium chromate                      | 7789-00-6                            | 232-140-5              | Carcinogen, category 2; mutagen, category 2                                    |
| 35 | Ammonium dichromate                     | 7789-09-5                            | 232-143-1              | Carcinogen, category 2; mutagen, category 2; toxic for reproduction category 2 |
| 36 | Potassium dichromate                    | 7778-50-9                            | 231-906-6              | Carcinogen, category 2; mutagen, category 2; toxic for reproduction category 2 |

The fourth batch of SVHC list (ECHA/PR/10/16)

Helsinki, 30 August 2010

| #  | Substance name       | CAS number | EC number             | Proposed SVH property                                  |
|----|----------------------|------------|-----------------------|--|
| 37 | Cobalt(II) sulphate  | 111-15-9   | 203-839-2             | CMR(carcinogen, cat. 2; toxic for reproduction, cat.2) |
| 38 | Cobalt(II) dinitrate | 215-10-68  | 232-142-6             | CMR(carcinogen, cat. 2; toxic for reproduction, cat.2) |
| 39 | Cobalt(II) carbonate | 68515-42-4 | 271-084-6             | CMR(carcinogen, cat. 2; toxic for reproduction, cat.2) |
| 40 | Cobalt(II) diacetate | 206-114-9  | 7803-57-8<br>302-01-2 | CMR(carcinogen, cat. 2; toxic for reproduction, cat.2) |

|    |  |            |           |                                      |
|----|--|------------|-----------|--------------------------------------|
| 41 | 2-Methoxyethanol   | 872-50-4   | 212-828-1 | CMR(toxic for reproduction, cat.2)   |
| 42 | 2-Ethoxyethanol  | 96-18-4    | 202-486-1 | CMR(toxic for reproduction, cat.2)   |
| 43 | Chromium trioxide  | 71888-89-6 | 276-158-1 | CMR(carcinogen, cat 1;mutagen,cat.2) |
| 44 | Acids generated from chromium trioxide and their oligomers |            |           |                                      |
|    | Chromic acid   | 7738-94-5  | 231-801-5 | CMR(carcinogen, cat.2)               |
|    | Dichromic acid   | 13530-68-2 | 236-881-5 |                                      |
|    | Oligomers of chromic acid and dichromic acid               | -          | -         |                                      |

The fifth batch of SVHC list (ECHA/PR/11/15)

Helsinki, 20 June 2011

| #  | Substance name   | CAS number            | EC number | Proposed SVHC property                              |
|----|--|-----------------------|-----------|---|
| 45 | 2-ethoxyethyl acetate  | 111-15-9              | 203-839-2 | Art. 57(c), toxic for reproduction                  |
| 46 | strontium chromate   | 7789-06-2             | 232-142-6 | Art. 57(a),carcinogenic                             |
| 47 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters    | 68515-42-4            | 271-084-6 | Art. 57(c), toxic for reproduction                  |
| 48 | Hydrazine  | 7803-57-8<br>302-01-2 | 206-114-9 | Art. 57(a),carcinogenic                             |
| 49 | 1-methyl-2-pyrrolidone   | 872-50-4              | 212-828-1 | Art. 57(c), toxic for reproduction                  |
| 50 | 1,2,3-trichloropropane   | 96-18-4               | 202-486-1 | Art. 57(a)&(c),carcinogenic& toxic for reproduction |
| 51 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich(DIHP) | 71888-89-6            | 276-158-1 | Art. 57(c), toxic for reproduction                  |

The sixth batch of SVHC list (ED/77/2011)

Helsinki, 19 December 2011

| #  | Substance name  | CAS number | EC number | Proposed SVHC property               |
|----|---|------------|-----------|--------------------------------------|
| 52 | Dichromium tris(chromate)   | 24613-89-6 | 246-356-2 | Carcinogenic (article 57 a)          |
| 53 | Potassium hydroxyoctaoxodizincatedichromate                             | 11103-86-9 | 234-329-8 | Carcinogenic (article 57 a)          |
| 54 | Pentazinc chromate octahydroxide  | 49663-84-5 | 256-418-0 | Carcinogenic (article 57 a)          |
| 55 | Formaldehyde, oligomeric reaction products with aniline (technical MDA) | 25214-70-4 | 500-036-1 | Carcinogenic (article 57 a)          |
| 56 | Bis(2-methoxyethyl) phthalate   | 117-82-8   | 204-212-6 | Toxic for reproduction (article 57c) |

|    |   |            |              |  |
|----|---|------------|--------------|--|
| 57 | 2-Methoxyaniline; o-Anisidine                               | 90-04-0    | 201-963-1    | Carcinogenic (article 57a)   |
| 58 | 4-(1,1,3,3-tetramethylbutyl) phenol, (4-tert-Octylphenol)   | 140-66-9   | 205-426-2    | Equivalent level of concern having probable serious effects to the environment (article 57f) |
| 59 | 1,2-Dichloroethane  | 107-06-2   | 203-458-1    | Carcinogenic (article 57a)   |
| 60 | Bis(2-methoxyethyl) ether                                   | 111-96-6   | 203-924-4    | Toxic for reproduction (article 57c)   |
| 61 | Arsenic acid  | 7778-39-4  | 231-901-9    | Carcinogenic (article 57a)   |
| 62 | Calcium arsenate  | 7778-44-1  | 231-904-5    | Carcinogenic (article 57a)   |
| 63 | Trilead diarsenate  | 3687-31-8  | 222-979-5    | Carcinogenic and toxic for reproduction (articles 57a ,57c)                                  |
| 64 | N,N-dimethylacetamide (DMAC)                                | 127-19-5   | 204-826-4    | Toxic for reproduction (article 57c)   |
| 65 | 2,2'-dichloro-4,4'-methylenedianiline (MOCA)                | 101-14-4   | 202-918-9    | Carcinogenic (article 57a)   |
| 66 | Phenolphthalein   | 77-09-8    | 201-004-7    | Carcinogenic (article 57a)   |
| 67 | Lead azide Lead diazide                                     | 13424-46-9 | 236-542-1    | Toxic for reproduction (article 57c)   |
| 68 | Lead styphnate  | 15245-44-0 | 239-290-0    | Toxic for reproduction (article 57c)   |
| 69 | Lead dipicrate  | 6477-64-1  | 229-335-2    | Toxic for reproduction (article 57c)   |
| 70 | Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF) | -          | 650-017-00-8 | Carcinogenic(Article 57a)  |
| 71 | Aluminosilicate Refractory Ceramic Fibres(RCF)              | -          | 650-017-00-8 | Carcinogenic(Article 57a)  |

The seventh batch of SVHC list (ECHA/PR/12/16)

Helsinki, 18 June 2012

| #  | Substance name  | CAS number | EC number | Proposed SVHC property               |
|----|---|------------|-----------|--------------------------------------|
| 72 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)           | 112-49-2   | 203-977-3 | Toxic for reproduction (article 57c) |
| 73 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 110-71-4   | 203-794-9 | Toxic for reproduction (article 57c) |
| 74 | Diboron trioxide  | 1303-86-2  | 215-125-8 | Toxic for reproduction (article 57c) |
| 75 | Formamide   | 75-12-7    | 200-842-0 | Toxic for reproduction (article 57c) |

|    |   |            |           |                                      |
|----|---|------------|-----------|--------------------------------------|
| 76 | Lead(II) bis<br>(methanesulfonate)  | 17570-76-2 | 401-750-5 | Toxic for reproduction (article 57c) |
| 77 | 1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione (TGIC)   | 2451-62-9  | 219-514-3 | Mutagenic (Article 57 b)             |
| 78 | 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)   | 59653-74-6 | 423-400-0 | Mutagenic (Article 57 b)             |
| 79 | 4,4'-bis(dimethylamino)benzophenone (Michler's ketone)  | 90-94-8    | 202-027-5 | Carcinogenic (Article 57a)           |
| 80 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)  | 101-61-1   | 202-959-2 | Carcinogenic (Article 57a)           |
| 81 | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylenecyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] | 2580-56-5  | 219-943-6 | Carcinogenic (Article 57a)           |
| 82 | [4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]                 | 548-62-9   | 208-953-6 | Carcinogenic (Article 57a)           |
| 83 | 4,4'-bis(dimethylamino)-4''-(methylamino) trityl alcohol [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]  | 561-41-1   | 209-218-2 | Carcinogenic (Article 57a)           |

|    |  |           |           |                            |
|----|--|-----------|-----------|----------------------------|
| 84 | $\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [ <i>with <math>\geq 0.1\%</math> of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)</i> ] | 6786-83-0 | 229-851-8 | Carcinogenic (Article 57a) |
|----|--|-----------|-----------|----------------------------|

The eighth batch of SVHC list (ECHA/PR/12/39)

Helsinki, 19 December 2012

| #  | Substance name   | CAS number                          | EC number                           | Proposed SVHC property   |
|----|--|-------------------------------------|-------------------------------------|--|
| 85 | Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)   | 1163-19-5                           | 214-604-9                           | PBT (Article 57 d); vPvB (Article 57 e)  |
| 86 | Pentacosafuorotridecanoic acid   | 72629-94-8                          | 276-745-2                           | vPvB (Article 57 e)  |
| 87 | Tricosafuorododecanoic acid  | 307-55-1                            | 206-203-2                           | vPvB (Article 57 e)  |
| 88 | Henicosafuoroundecanoic acid   | 2058-94-8                           | 218-165-4                           | vPvB (Article 57 e)  |
| 89 | Heptacosafuorotetradecanoic acid   | 376-06-7                            | 206-803-4                           | vPvB (Article 57 e)  |
| 90 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))  | 123-77-3                            | 204-650-8                           | Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 91 | Cyclohexane-1,2-dicarboxylic anhydride [1]<br>cis-cyclohexane-1,2-dicarboxylic anhydride [2]<br>trans-cyclohexane-1,2-dicarboxylic anhydride [3]<br><i>[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].</i> | 85-42-7<br>13149-00-3<br>14166-21-3 | 201-604-9<br>236-086-3<br>238-009-9 | Equivalent level of concern having probable serious effects to human health (Article 57 f) |

|    |   |  |  |   |
|----|---|--|--|---|
| 92 | Hexahydromethylphthalic anhydride [1],<br>Hexahydro-4-methylphthalic anhydride [2],<br>Hexahydro-1-methylphthalic anhydride [3],<br>Hexahydro-3-methylphthalic anhydride [4]<br><i>[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]</i> | 25550-51-0<br>19438-60-9<br>48122-14-1<br>57110-29-9 | 247-094-1<br>243-072-0<br>256-356-4<br>260-566-1 | Equivalent level of concern having probable serious effects to human health (Article 57 f)    |
| 93 | 4-Nonylphenol, branched and linear<br><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>  | -  | -  | Equivalent level of concern having probable serious effects to the environment (Article 57 f) |
| 94 | 4-(1,1,3,3-tetramethylbutyl) phenol, ethoxylated<br><i>[covering well-defined substances and UVCB substances, polymers and homologues]</i>  | -  | -  | Equivalent level of concern having probable serious effects to the environment (Article 57 f) |
| 95 | Methoxyacetic acid  | 625-45-6   | 210-894-6  | Toxic for reproduction (Article 57 c)   |
| 96 | N,N-dimethylformamide   | 68-12-2  | 200-679-5  | Toxic for reproduction (Article 57 c)   |
| 97 | Dibutyltin dichloride (DBTC)  | 683-18-1   | 211-670-0  | Toxic for reproduction (Article 57 c)   |
| 98 | Lead monoxide (Lead oxide)  | 1317-36-8  | 215-267-0  | Toxic for reproduction (Article 57 c)   |
| 99 | Orange lead (Lead tetroxide)  | 1314-41-6  | 215-235-6  | Toxic for reproduction (Article 57 c)   |



|     |   |             |           |  |
|-----|---|-------------|-----------|--|
| 100 | Lead bis(tetrafluoroborate)   | 13814-96-5  | 237-486-0 | Toxic for reproduction (Article 57 c)                |
| 101 | Trilead bis(carbonate) dihydroxide  | 1319-46-6   | 215-290-6 | Toxic for reproduction (Article 57 c)                |
| 102 | Lead titanium trioxide  | 12060-00-3  | 235-038-9 | Toxic for reproduction (Article 57 c)                |
| 103 | Lead titanium zirconium oxide   | 12626-81-2  | 235-727-4 | Toxic for reproduction (Article 57 c)                |
| 104 | Silicic acid, lead salt   | 11120-22-2  | 234-363-3 | Toxic for reproduction (Article 57 c)                |
| 105 | Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped<br><i>[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]</i> | 68784-75-8  | 272-271-5 | Toxic for reproduction (Article 57 c)                |
| 106 | 1-bromopropane (n-propyl bromide)   | 106-94-5    | 203-445-0 | Toxic for reproduction (Article 57 c)                |
| 107 | Methyloxirane (Propylene oxide)   | 75-56-9     | 200-879-2 | Carcinogenic(Article 57a);<br>Mutagenic(Article 57c) |
| 108 | 1,2-Benzenedicarboxylic acid, dipentylester, branched and linear  | 84777-06-0  | 284-032-2 | Toxic for reproduction (Article 57 c)                |
| 109 | Diisopentylphthalate (DIPP)   | 605-50-5    | 210-088-4 | Toxic for reproduction (Article 57 c)                |
| 110 | N-pentyl-isopentylphthalate   | 776297-69-9 | -         | Toxic for reproduction (Article 57 c)                |
| 111 | 1,2-diethoxyethane  | 629-14-1    | 211-076-1 | Toxic for reproduction (Article 57 c)                |
| 112 | Acetic acid, lead salt, basic   | 51404-69-4  | 257-175-3 | Toxic for reproduction (Article 57 c)                |
| 113 | Lead oxide sulfate  | 12036-76-9  | 234-853-7 | Toxic for reproduction (Article 57 c)                |

|     |  |             |           |   |
|-----|--|-------------|-----------|---|
| 114 | [Phthalato(2-)]dioxotrilead                                | 69011-06-9  | 273-688-5 | Toxic for reproduction (Article 57 c)               |
| 115 | Dioxo bis(stearato)trilead                                 | 12578-12-0  | 235-702-8 | Toxic for reproduction (Article 57 c)               |
| 116 | Fatty acids, C16-18, lead salts                            | 91031-62-8  | 292-966-7 | Toxic for reproduction (Article 57 c)               |
| 117 | Lead cyanamidate   | 20837-86-9  | 244-073-9 | Toxic for reproduction (Article 57 c)               |
| 118 | Lead dinitrate   | 10099-74-8  | 233-245-9 | Toxic for reproduction (Article 57 c)               |
| 119 | Pentalead tetraoxide sulphate                              | 12065-90-6  | 235-067-7 | Toxic for reproduction (Article 57 c)               |
| 120 | Pyrochlore, antimony lead yellow                           | 8012-00-8   | 232-382-1 | Toxic for reproduction (Article 57 c)               |
| 121 | Sulfurous acid, lead salt, dibasic                         | 62229-08-7  | 263-467-1 | Toxic for reproduction (Article 57 c)               |
| 122 | Tetraethyllead   | 78-00-2     | 201-075-4 | Toxic for reproduction (Article 57 c)               |
| 123 | Tetralead trioxide sulphate                                | 12202-17-4  | 235-380-9 | Toxic for reproduction (Article 57 c)               |
| 124 | Trilead dioxide phosphonate                                | 12141-20-7  | 235-252-2 | Toxic for reproduction (Article 57 c)               |
| 125 | Furan  | 110-00-9    | 203-727-3 | Carcinogenic (Article 57a)                          |
| 126 | Diethyl sulphate   | 64-67-5     | 200-589-6 | Carcinogenic(Article57a)<br>Mutagenic (Article 57b) |
| 127 | Dimethyl sulphate  | 77-78-1     | 201-058-1 | Carcinogenic (Article 57a)                          |
| 128 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine         | 143860-04-2 | 421-150-7 | Toxic for reproduction (Article 57c)                |
| 129 | Dinoseb(6-sec-butyl-2,4-dinitrophenol)                     | 88-85-7     | 201-861-7 | Toxic for reproduction (Article 57c)                |
| 130 | 4,4'-methylenedi- <i>o</i> -toluidine                      | 838-88-0    | 212-658-8 | Carcinogenic (Article 57a)                          |
| 131 | 4,4'-oxydianiline and its salts                            | 101-80-4    | 202-977-0 | Carcinogenic(Article57a)<br>Mutagenic (Article 57b) |
| 132 | 4-aminoazobenzene  | 60-09-3     | 200-453-6 | Carcinogenic (Article 57a)                          |
| 133 | 4-methyl- <i>m</i> -phenylenediamine (toluene-2,4-diamine) | 95-80-7     | 202-453-1 | Carcinogenic (Article 57a)                          |
| 134 | 6-methoxy- <i>m</i> -toluidine (p-cresidine)               | 120-71-8    | 204-419-1 | Carcinogenic (Article 57a)                          |

|     |   |         |           |                                      |
|-----|---|---------|-----------|--------------------------------------|
| 135 | Biphenyl-4-ylamine  | 92-67-1 | 202-177-1 | Carcinogenic (Article 57a)           |
| 136 | <i>o</i> -aminoazotoluene<br>[(4- <i>o</i> -tolylazo- <i>o</i> -toluidine)] | 97-56-3 | 202-591-2 | Carcinogenic (Article 57a)           |
| 137 | <i>o</i> -toluidine   | 95-53-4 | 202-429-0 | Carcinogenic (Article 57a)           |
| 138 | <i>N</i> -methylacetamide   | 79-16-3 | 201-182-6 | Toxic for reproduction (Article 57c) |

The ninth batch list of SVHC (ECHA/PR/13/26)

Helsinki , 20 June 2013

| #   | Substance name  | CAS number | EC number | Proposed SVHC property   |
|-----|---|------------|-----------|--|
| 139 | Cadmium   | 7440-43-9  | 231-152-8 | Carcinogenic (Article 57a)<br>Equivalent level of concern having probable serious effects to human health (Article 57 f)   |
| 140 | Cadmium oxide   | 1306-19-0  | 215-146-2 | Carcinogenic (Article 57a)<br>Equivalent level of concern having probable serious effects to human health (effects on kidney and bone) (Article 57 f)                  |
| 141 | Ammonium pentadecafluorooctanoate (APFO)  | 3825-26-1  | 223-320-4 | Toxic for reproduction (Article 57 c)<br>PBT (Article 57 d)  |
| 142 | Pentadecafluorooctanoic acid (PFOA)   | 335-67-1   | 206-397-9 | Toxic for reproduction (Article 57 c);<br>PBT (Article 57 d)   |
| 143 | Dipentyl phthalate (DPP)  | 131-18-0   | 205-017-9 | Toxic for reproduction (Article 57 c)  |
| 144 | 4-Nonylphenol, branched and linear, ethoxylated<br><i>[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]</i> | -          | -         | Equivalent level of concern having probable serious effects to the environment (due to the endocrine disrupting properties of the degradation products) (Article 57 f) |

## The tenth list of SVHC (ECHA/PR/13/40)

Helsinki, 3 Jan 2014

| #   | Substance name   | CAS number | EC number | Proposed SVHC property  |
|-----|--|------------|-----------|---|
| 145 | Cadmium sulphide   | 1306-23-6  | 215-147-8 | Carcinogenic (Article 57a);<br>Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 146 | 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 (Article 57a)  |
| 147 | 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 | Carcinogenic (Article 57a)  |
| 148 | Dihexyl phthalate  | 84-75-3    | 201-559-5 | Toxic for reproduction (Article 57 c)   |
| 149 | Imidazolidine-2-thione (2-imidazoline-2-thiol)   | 96-45-7    | 202-506-9 | Toxic for reproduction (Article 57 c)   |
| 150 | Lead di(acetate)   | 301-04-2   | 206-104-4 | Toxic for reproduction (Article 57 c)   |
| 151 | Trixylyl phosphate   | 25155-23-1 | 246-677-8 | Toxic for reproduction (Article 57 c)   |

## The 11th batch of SVHC list (ECHA/PR/14/11)

Helsinki, 16 June 2014

| #   | Substance name   | CAS number | EC number | Proposed SVHC property   |
|-----|--|------------|-----------|--|
| 152 | Cadmium chloride   | 10108-64-2 | 233-296-7 | Carcinogenic (Article 57a);<br>Mutagenic (Article 57b);<br>Toxic for reproduction (Article 57c);<br>Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 153 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | 68515-50-4 | 271-093-5 | Toxic for reproduction (Article 57 c)  |
| 154 | Sodium peroxometaborate  | 7632-04-4  | 231-556-4 | Toxic for reproduction (Article 57 c)  |

|     |  |   |                        |                                       |
|-----|--|---|------------------------|---------------------------------------|
| 155 | Sodium perborate; perboric acid, sodium salt | - | 239-172-9<br>234-390-0 | Toxic for reproduction (Article 57 c) |
|-----|--|---|------------------------|---------------------------------------|

The 12th batch of SVHC list (ECHA/PR/14/18)

Helsinki, 17 December 2014

| #   | Substance name  | CAS number                 | EC number | Proposed SVHC property  |
|-----|---|----------------------------|-----------|---|
| 156 | Cadmium fluoride  | 7790-79-6                  | 232-222-0 | Carcinogenic (Article 57 a);<br>Mutagenic (Article 57 b);<br>Toxic for reproduction (Article 57 c);<br>Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 157 | Cadmium sulphate  | 10124-36-4 ;<br>31119-53-6 | 233-331-6 | Carcinogenic (Article 57 a);<br>Mutagenic (Article 57 b);<br>Toxic for reproduction (Article 57 c);<br>Equivalent level of concern having probable serious effects to human health (Article 57 f) |
| 158 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)  | 3846-71-7                  | 223-346-6 | PBT (Article 57 d);<br>vPvB (Article 57 e)  |
| 159 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)  | 25973-55-1                 | 247-384-8 | PBT (Article 57 d);<br>vPvB (Article 57 e)  |
| 160 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)  | 15571-58-1                 | 239-622-4 | Toxic for reproduction (Article 57 c)   |
| 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) | -                          | -         | Toxic for reproduction (Article 57 c)   |

## The 13th batch of SVHC list (ECHA/PR/15/09)

Helsinki, 15 June 2015

| #   | Substance name  | CAS number               | EC number              | Proposed SVHC property                |
|-----|---|--------------------------|------------------------|---------------------------------------|
| 162 | 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters;<br>1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with $\geq 0.3\%$ of dihexyl phthalate (EC No. 201-559-5)  | 68515-51-5<br>68648-93-1 | 271-094-0<br>272-013-1 | Toxic for reproduction (Article 57 c) |
| 163 | 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof] | -                        | -                      | vPvB (Article 57e)                    |

## The 14th batch of SVHC list (ECHA/PR/15/18)

Helsinki, 17 December 2015

| #   | Substance name   | CAS number                          | EC number | Proposed SVHC property                                  |
|-----|--|-------------------------------------|-----------|---|
| 164 | Nitrobenzene   | 98-95-3                             | 202-716-0 | Toxic for reproduction (article 57c)                    |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)       | 3864-99-1                           | 223-383-8 | vPvB (Article 57 e)                                     |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 6437-37-3                           | 253-037-1 | vPvB (Article 57 e)                                     |
| 167 | 1,3-propanesultone   | 1120-71-4                           | 214-317-9 | Carcinogenic (Article 57 a)                             |
| 168 | Perfluorononan-1-oic-acid and its sodium and ammonium salts          | 375-95-1<br>21049-39-8<br>4149-60-4 | 206-801-3 | Toxic for reproduction (article 57c) PBT (Article 57 d) |

## The 15th batch of SVHC list (ECHA/PR/16/07)

Helsinki, 20 June 2016

| #   | Substance name                      | CAS number | EC number | Proposed SVHC property   |
|-----|-------------------------------------|------------|-----------|--|
| 169 | Benzo[def]chrysene (Benzo[a]pyrene) | 50-32-8    | 200-028-5 | Carcinogenic (Article 57a)<br>Mutagenic (Article 57b)<br>Toxic for reproduction (article 57c)<br>PBT (Article 57d)<br>vPvB (Article 57e) |

## The 16th batch of SVHC list (ECHA/NA/16/38)

Helsinki, 19 December 2016

| #   | Substance name  | CAS number                         | EC number              | Proposed SVHC property   |
|-----|---|------------------------------------|------------------------|--|
| 170 | 4,4'-sopropylidenediphenol (bisphenol A)  | 80-05-7                            | 201-245-8              | Toxic for reproduction (article 57c)<br>Endocrine disrupting properties (Article 57(f) - human health) |
| 171 | Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts  | 335-76-2<br>3108-42-7<br>3830-45-3 | 206-400-3<br>221-470-5 | Toxic for reproduction (article 57c) PBT (Article 57d)   |
| 172 | p-(1,1-dimethylpropyl) phenol = 4-tert-pentylphenol (PTAP)  | 80-46-6                            | 201-280-9              | Equivalent level of concern having probable serious effects to human health (Article 57f)              |
| 173 | 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] | -                                  | -                      | Equivalent level of concern having probable serious effects to human health (Article 57f)              |

## The 17th batch of SVHC list (ECHA/PR/17/14)

Helsinki, 10 July 2017

| #   | Substance name  | CAS number | EC number | Proposed SVHC property |
|-----|---|------------|-----------|------------------------|
| 174 | Perfluorohexane-1-sulphonic acid and its salts, (PFHxS) | -          | -         | vPvB (Article 57e)     |

## The 18th batch of SVHC list (ECHA/PR/18/01)

Helsinki, 15 January 2018

| #   | Substance name    | CAS number | EC number | Proposed SVHC property   |
|-----|-------------------|------------|-----------|--|
| 175 | Chrysene          | 218-01-9   | 205-923-4 | Carcinogenic (Article 57a)<br>PBT (Article 57d)<br>vPvB (Article 57e)  |
| 176 | Benz[a]anthracene | 56-55-3    | 200-280-6 | Carcinogenic (Article 57a)<br>PBT (Article 57d)<br>vPvB (Article 57e)  |
| 177 | Cadmium nitrate   | 10325-94-7 | 233-710-6 | Carcinogenic (Article 57a)<br>Mutagenic (Article 57b)<br>Specific target organ toxicity after repeated exposure (Article 57(f) - human health) |

|     |  |            |           |  |
|-----|--|------------|-----------|--|
| 178 | Cadmium hydroxide  | 21041-95-2 | 244-168-5 | Carcinogenic (Article 57a)<br>Mutagenic (Article 57b)<br>Specific target organ toxicity after repeated exposure (Article 57(f) - human health) |
| 179 | Cadmium carbonate  | 513-78-0   | 208-168-9 | Carcinogenic (Article 57a)<br>Mutagenic (Article 57b)<br>Specific target organ toxicity after repeated exposure (Article 57(f) - human health) |
| 180 | 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"™) [covering any of its individual anti- and syn-isomers or any combination thereof] | -          | -         | vPvB (Article 57e)   |
| 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)  |

The 19th batch of SVHC list (ECHA/PR/18/11)

Helsinki, 27 June 2018

| #   | Substance name                     | CAS number | EC number | Proposed SVHC property                  |
|-----|------------------------------------|------------|-----------|---|
| 182 | Octamethylcyclotetrasiloxane (D4)  | 556-67-2   | 209-136-7 | PBT (Article 57d)<br>vPvB (Article 57e) |
| 183 | Decamethylcyclopentasiloxane (D5)  | 541-02-6   | 208-764-9 | PBT (Article 57d)<br>vPvB (Article 57e) |
| 184 | Dodecamethylcyclohexasiloxane (D6) | 540-97-6   | 208-762-8 | PBT (Article 57d)<br>vPvB (Article 57e) |
| 185 | Lead                               | 7439-92-1  | 231-100-4 | Toxic for reproduction (Article 57c)    |
| 186 | Disodium octaborate                | 12008-41-2 | 234-541-0 | Toxic for reproduction (Article 57c)    |
| 187 | Benzo[ghi]perylene                 | 191-24-2   | 205-883-8 | PBT (Article 57d)<br>vPvB (Article 57e) |



|     |  |            |           |   |
|-----|--|------------|-----------|---|
| 188 | Terphenyl hydrogenated   | 61788-32-7 | 262-967-7 | vPvB (Article 57e)  |
| 189 | Ethylenediamine (EDA)  | 107-15-3   | 203-468-6 | Specific target organ toxicity after repeated exposure (Article 57(f) - human health)   |
| 190 | Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (Trimellitic Anhydride) (TMA) | 552-30-7   | 209-008-0 | Specific target organ toxicity after repeated exposure (Article 57(f) - human health)   |
| 191 | Dicyclohexyl Phthalate (DCHP)  | 84-61-7    | 201-545-9 | Toxic for reproduction (Article 57c)<br>Specific target organ toxicity after repeated exposure (Article 57(f) - human health) |

The 20th batch of SVHC list (ECHA/PR/19/01)

Helsinki, 15 January 2019

| #   | Substance name  | CAS number | EC number | Proposed SVHC property  |
|-----|---|------------|-----------|---|
| 192 | 2,2-bis(4'-hydroxyphenyl)-4-methylpentane   | 6807-17-6  | 401-720-1 | Toxic for reproduction (Article 57c)                                  |
| 193 | Benzo[k]fluoranthene  | 207-08-9   | 205-916-6 | Carcinogenic (Article 57a)<br>PBT (Article 57d)<br>vPvB (Article 57e) |
| 194 | Fluoranthene  | 206-44-0   | 205-912-4 | PBT (Article 57d)<br>vPvB (Article 57e)                               |
| 195 | Phenanthrene  | 85-01-8    | 201-581-5 | vPvB (Article 57e)  |
| 196 | Pyrene  | 129-00-0   | 204-927-3 | PBT (Article 57d)<br>vPvB (Article 57e)                               |
| 197 | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one (3-benzylidene camphor) | 15087-24-8 | 239-139-9 | Endocrine disrupting properties (Article 57(f) - environment)         |

The 21th batch of SVHC list (ECHA/PR/19/12)

Helsinki, 16 July 2019

| #   | Substance name   | CAS number | EC number | Proposed SVHC property  |
|-----|--|------------|-----------|---|
| 198 | 2-methoxyethyl acetate   | 110-49-6   | 203-772-9 | Toxic for reproduction (Article 57(c))                        |
| 199 | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP) | -          | -         | Endocrine disrupting properties (Article 57(f) – environment) |
| 200 | 4-tert-butylphenol   | 98-54-4    | 202-679-0 | Endocrine disrupting properties (Article 57(f) – environment) |

|     |  |   |   |   |
|-----|--|---|---|---|
| 201 | 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof) | - | - | <p>Equivalent level of concern having probable serious effects to the environment (Article 57(f) - environment)</p> <p>Equivalent level of concern having probable serious effects to human health (Article 57(f) – human health)</p> |
|-----|--|---|---|---|

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 HQD Quality System & sustainability  
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