

**K E R I N G**



***Product Restricted Substances List (PRSL)***  
***and Product Safety Requirements***

Product Compliance Advisory Department

Rev. 05 - October 2020

## **SCOPE**

Compliance with the standards contained in the present document is mandatory for all Kering products, including packaging materials.

## **INTRODUCTION**

Kering Group committed to operating in a compliant manner in order to protect its customers, workers, Brands and the environment. The “Kering Product Restricted Substances List and Product Safety Requirements” is a necessary part of this commitment. Moreover, the present document is intended to help users to understand and comply with the strictest worldwide legislation about health, product safety and the environment.

A primary aim of Kering is to ensure that only safe and compliant products are offered to the customer.

Kering restrictions are generally based on existing compulsory global regulations, but in certain cases it has been decided to impose stricter limitations on raw materials and finished products in case of the evidence that they may present safety risks for final customers and the environment, although specific act has not yet been released.

## NOTE

1. This document does not cover specific safety requirements for items other than those of the "fashion system" (Ready to Wear, Soft Accessories, Footwear, Leather goods, Jewellery, Eyewear and their Packaging); for example toys, baby care products, food contact products, electrical and electronic products, cosmetic products, etc. are excluded.
2. EC Regulation no. 1907/2006 (REACH):
  - All materials must be provided according to EC Regulation and all its amendments in force at the time of delivery of the items (<http://echa.europa.eu/it/home>).
  - All materials shall not contain SVHC reported on "Candidate List" (<http://echa.europa.eu/it/candidate-list-table>) at the time of delivery of the items. Otherwise, the supplier must inform us immediately.
3. Children's Products must meet, in addition to any other requirement reported in this document, also non-federal regulations in the US: suppliers must comply with the non-intentional use of several hazardous chemicals. If the use cannot be avoided, suppliers must inform us immediately. The list of these chemicals is reported in Section 1.10.
4. All test methods referred to regulations must be performed in accordance to the release in force at the time of delivery of the items.
5. PVC (polyvinyl chloride) is banned in all materials and finished products, in accordance with Kering Standards.
6. For additional information about Kering Standards please refer to: [https://keringcorporate.dam.kering.com/m/1ca1b08d57d7292d/original/kering\\_standards\\_en.pdf](https://keringcorporate.dam.kering.com/m/1ca1b08d57d7292d/original/kering_standards_en.pdf).

## CONTACTS

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## MAIN UPDATE

The “Kering Product Restricted Substances List and Product Safety Requirements” will be updated by Product Compliance Advisory Department annually or whenever required, as worldwide Legislations and Regulations are constantly evolving, reserving the right to alter the update at any time outside of the schedule.

| Revision ref. | News added or updated   | Material/Product involved  |
|---------------|---|--|
| Rev. 05       | Children’s Products: US not federal Regulation (Section 1.10)   | All materials - Children’s Products                                      |
|               | Limits applicable to regenerated materials only for the following substances: <ul style="list-style-type: none"> <li>- Biocides</li> <li>- Chlorobenzenes and Chlorotoluenes</li> <li>- Allergenic Disperse</li> <li>- Carcinogenic</li> <li>- Nonylphenoethoxylates and Octylphenoethoxylates</li> <li>- Organotin compounds</li> <li>- Pentachlorophenol and Tetrachlorophenols</li> <li>- Perfluorooctanesulfonates</li> <li>- Perfluorooctanoic Acid and its salts</li> </ul> | Textile - Regenerated materials (Adult and Children - Baby not included) |
|               | New test method for Ammonium perfluorooctanoate (Appendix 15)   | Leather  |

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## 1. KERING PRODUCT RESTRICTED SUBSTANCES LIST (PRSL)

| 1.1 Textile                                       |  |   | Requirements  |   | Test method reference                             |
|---|--|---|---|---|---|
| Parameter   | Unit   | Babies ( $\leq 36$ months)                  | Children (3-14 years)<br>& Adults ( $>14$ years)                                      |   |   |
| Acid boric  | mg/kg  | $\leq 1000$                                 |   | Screening Test: acid digestion ICP-MS;<br>Specific Test: Aqueous extraction - TEA derivatization - GC-MS      |   |
| Asbestos (Appendix 2)                             | mg/kg  | Not detected                                |   | Microscopic examination   |   |
| Biocides (Appendix 3)                             | mg/kg  | $\leq 0,5$ (sum)<br>(PCP and TeCP excluded) | $\leq 1$ (sum)<br>$\leq 5$ (sum) (recycled materials only)<br>(PCP and TeCP excluded) | Chromatographic Test Methods refer to US<br>EPA 8081  |   |
| Chlorobenzenes and Chlorotoluenes<br>(Appendix 5) | mg/kg  | $\leq 1$ (sum)                              | $\leq 1$ (sum)<br>$\leq 5$ (sum) (recycled materials only)                            | EN 17137  |   |
| Colour<br>Fastness to                             | Dry rubbing  | gray scale                                  | $\geq 4$  | $\geq 3$  | EN ISO 105-X12; GB 18401: GB/T 3920               |
|   | Perspiration<br>(acid and alkaline)  | gray scale                                  | $\geq 3/4$  | $\geq 3$  | EN ISO 105-E04; GB 18401: GB/T 3922               |
|   | Saliva   | gray scale                                  | $\geq 4$  | N.A.  | GB 18401: GB/T 18886                              |
|   | Water  | gray scale                                  | $\geq 3/4$  | $\geq 3$  | EN ISO 105-E01; GB 18401: GB/T 5713               |
|   | Wet rubbing  | gray scale                                  | $\geq 3$<br>$\geq 2/3$ (only dark colour)   | $\geq 2/3$ ( $\leq 14$ years)   | EN ISO 105-X12; GB 31701: GB/T 3920               |
| Dimethyl fumarate                                 | mg/kg  | $\leq 0,1$                                  |   | ISO/TS 16186 - GB/T 26713   |   |
| Dyes  | Allergenic Disperse<br>(Appendix 1)  | mg/kg                                       | Not detectable ( $\leq 5$ mg/kg)  | Not detectable ( $\leq 5$ mg/kg)<br>$\leq 50$ (recycled materials only)                                       | DIN 54231<br>ISO 16373-2                          |
|   | Azo: aryl amines can<br>be split off under<br>reductive conditions<br>(Appendix 8) | mg/kg                                       | $\leq 20$ (each)  |   | UNI EN 14362-1,3<br>GB/T 17592.1 GB/T 23344       |
|   | Carcinogenic<br>(Appendix 4)   | mg/kg                                       | Not detectable ( $\leq 5$ mg/kg)  | Not detectable ( $\leq 5$ mg/kg)<br>$\leq 50$ (recycled materials only)                                       | DIN 54231 - Analysis TLC and LC-MS<br>ISO 16373-3 |
|   | Navy Blue<br>(Appendix 11)   | mg/kg                                       | Not detectable ( $\leq 5$ mg/kg)  |   | Based on DIN 54231                                |
| Flame Retardants (Appendix 7)                     | mg/kg  | Not detectable ( $\leq 5$ mg/kg)            |   | GB/T 24279 - ISO 17881-1-2<br>Extraction with organic solvent - Analysis by GC-MS; GC-ECD;<br>LC-MS; KS 62321 |   |



| Parameter   |         | Unit                              | Requirements  |  | Test method reference  |
|---|---------|-----------------------------------|---|--|--|
|   |         |                                   | Babies ( $\leq 36$ months)                          | Children (3-14 years) & Adults ( $>14$ years)  |  |
| Formaldehyde (free and extractable)   |         | mg/kg                             | $\leq 16$   | $\leq 75$  | EN ISO 14184-1<br>GB 18401: GB/T 2912.1<br>KS K 0611                           |
| Heavy Metals (total amount)   | Cadmium | mg/kg                             | $\leq 40$   | $\leq 40$ ( $\leq 14$ years)<br>$\leq 50$  | EN 16711-1   |
|   | Lead    | mg/kg                             | $\leq 40$ (jewelry only)<br>$\leq 90$               | $\leq 40$ (jewelry only, $\leq 14$ years)<br>$\leq 90$ ( $\leq 14$ years)<br>$\leq 100$    | EN 16711-1   |
| Mercury compounds (Appendix 10)   |         | mg/kg                             | $\leq 1$ (mercury)                                  |  | Screening Test method: ISO 17072-2<br>EN 16711-1                               |
| Nonylphenoxyethoxylates (NPEO)<br>Octylphenoxyethoxylates (OPEO)<br>(Appendix 13)   |         | mg/kg                             | $\leq 100$ (sum)                                    | $\leq 100$ (sum)<br>$\leq 250$ (recycled materials only)                                   | ISO 18254 -1   |
| Nonylphenols (NP), Octylphenols (OP)<br>(Appendix 14)                               |         | mg/kg                             | $\leq 100$ (sum)                                    |  | Extraction with organic solvent - Analysis by GC-MS referred to ISO 18857-1    |
| Odorous   |         |                                   | None  |  | GB 18401 part 6.7  |
| Organotin compounds: DBT, DOT,<br>TBT, TBTO, TPhT                                   |         | mg/kg                             | $\leq 0,5$ (TBT, TBTO, TPhT)<br>$\leq 1$ (DBT, DOT) | $\leq 1$ (TBT, TBTO, TPhT)<br>$\leq 2$ (DBT, DOT)<br>$\leq 5$ (recycled materials only)    | ISO/TS 16179<br>KS K 0737<br>NIEA T504.30B3                                    |
| Ortho-phenilphenol (OPP)  |         | mg/kg                             | $\leq 50$   | $\leq 100$   | Extraction with organic solvent - GC-MS  |
| Pentachlorophenol (PCP)<br>Tetrachlorophenols (2,3,4,5-; 2,3,4,6-;<br>2,3,5,6-TeCP) |         | mg/kg                             | $\leq 0,05$ (sum)                                   | $\leq 0,5$ (sum)<br>$\leq 5$ (recycled materials only)                                     | UNI 11057<br>US EPA 8081 A   |
| Perfluorooctanesulfonates (PFOS)<br>Perfluorooctanoic Acid (PFOA)                   |         | $\mu\text{g}/\text{m}^2$<br>mg/kg | $\leq 1 \mu\text{g}/\text{m}^2$                     | $\leq 1 \mu\text{g}/\text{m}^2$<br>$\leq 5 \text{ mg}/\text{kg}$ (recycled materials only) | CEN/TS 15968   |
| Perfluorooctanoic Acid (PFOA) and its salts (Appendix 15)                           |         | $\mu\text{g}/\text{kg}$           | $\leq 25 \mu\text{g}/\text{kg}$                     | $\leq 25 \mu\text{g}/\text{kg}$<br>$\leq 5 \text{ mg}/\text{kg}$ (recycled materials only) | Extraction with organic solvent - Analysis by LC-MSMS referred to CEN/TS 15968 |
| PFOA-related substances (Appendix 15)   |         | mg/kg                             | $\leq 1000 \mu\text{g}/\text{kg}$ (sum)             |  |  |
| pH value of aqueous extract   |         | pH                                | 4,0÷7,5   |  | EN ISO 3071<br>GB 18401: GB/T 7573   |
| Polychlorobiphenyls (PCB)<br>(Appendix 17)  |         | mg/kg                             | $\leq 0,1$  |  | Ref. EPA 3540C + EPA 8082A   |

| Parameter  | Unit  | Requirements                       |   | Test method reference                       |
|--|-------|------------------------------------|---|---|
|  |       | Babies ( $\leq 36$ months)         | Children (3-14 years) & Adults ( $>14$ years) |   |
| Polychloronaphthalenes (PCN) (Appendix 18)                                 | mg/kg | $\leq 1$                           |   | Ref. EPA 3550C + EPA 8270E                  |
| Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 19)                 | mg/kg | $\leq 0,5$ (synthetic fibers only) | $\leq 1$ (synthetic fibers only)              | AfPS GS 2019:01<br>ISO/TS 16190             |
| Short chained chloroparaffines (SCCPs : C <sub>10</sub> -C <sub>13</sub> ) | mg/kg | $\leq 50$ (sum)                    |   | ISO 18219                                   |
| Quinoline (CAS 91-22-5)  | mg/kg | $\leq 50$                          |   | GC-MS<br>extraction MeOH or THF and HPLC-MS |

| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements                      |   | Test method reference  |
|---|-------|-----------------------------------|---|--|
|   |       | Babies ( $\leq 36$ months)        | Children (3-14 years) and Adults ( $>14$ years) |  |
| Antimony                                | mg/kg | $\leq 30$                         |   | Extractable Content: extraction with acid perspiration according to:<br>EN 16711-2<br>Cr (VI): GB/T 17593-3; ISO 17075 |
| Arsenic                                 | mg/kg | $\leq 0,2$ (natural fibers only)  | $\leq 1$ (natural fibers only)                  |  |
| Cadmium                                 | mg/kg | $\leq 0,1$                        |   |  |
| Chromium (total)                        | mg/kg | $\leq 1$                          | $\leq 2$  |  |
| Chromium VI                             | mg/kg | $\leq 0,5$                        |   |  |
| Cobalt                                  | mg/kg | $\leq 1$                          | $\leq 4$  |  |
| Copper                                  | mg/kg | $\leq 25$                         | $\leq 50$                                       |  |
| Lead                                    | mg/kg | $\leq 0,2$                        | $\leq 1$  |  |
| Mercury                                 | mg/kg | $\leq 0,02$ (natural fibers only) |   |  |
| Nickel                                  | mg/kg | $\leq 1$                          | $\leq 4$  |  |



| Parameter<br>(referring to coating material) |   | Unit  | Requirements                            |                    | Test method reference   |
|--|---|-------|---|--------------------|---|
|  |   |       | Children (≤ 14 years)                   | Adults (>14 years) |   |
| Heavy Metals<br>(total amount)               | Cadmium                                 | mg/kg | ≤ 40                                    | N.A.               | EN 16711-1<br>CPSC-CH-E1003-09.1  |
|  | Lead                                    | mg/kg | ≤ 40 (jewelry only)<br>≤ 90             | ≤ 90               | Microwave digestion; ICP-MS/OES - CPSC-CH-E-1003-09.1 -<br>GB/T 30157                         |
|  | Mercury                                 | mg/kg | ≤ 10                                    |                    | Microwave digestion ICP-MS/OES  |
| Phthalates<br>(Appendix 16)                  | BBP, DBP, DEHP,<br>DIBP, DINP           | mg/kg | ≤ 50 (each)                             |                    | EN 14389<br>CPSC-CH-C1001-09.4<br>GB/T 20388<br>ISO 8124-6                                    |
|  | DIDP, DNOP                              | mg/kg | ≤ 1000 (sum)                            |                    |   |
|  | DHNUP, DPP,<br>DHP-DnHP,<br>DIHP, DMEP, | mg/kg | ≤ 1000 (sum)<br>≤ 500 (each, ≤ 3 years) | ≤ 1000 (sum)       |   |
|  | All other esters of<br>o-phthalic acid  | mg/kg | ≤ 500 (each, ≤ 3 years)                 | N.A.               |   |
| Solvents (Appendix 20)                       |   | mg/kg | According to dedicated appendix         |                    | GB 19340:2003 "Extraction HS - SPME or Purge & Trap and<br>Analysis by GC-MS"<br>ISO/TS 16189 |

| Additional Requirements for Painted and Coated Textile - Children Products (only for 0-3 years "Infants" and 3-13 years "Children") |       |        |              |  |                       |
|---|-------|--------|--------------|--|-----------------------|
| Parameter<br>Heavy Metals (extractable)   |       | Unit   | Requirements |  | Test method reference |
| Antimony  | mg/kg | ≤ 60   |              | KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |                       |
| Arsenic   | mg/kg | ≤ 25   |              |  |                       |
| Barium  | mg/kg | ≤ 1000 |              |  |                       |
| Cadmium   | mg/kg | ≤ 75   |              |  |                       |
| Chromium (total)  | mg/kg | ≤ 60   |              |  |                       |
| Lead  | mg/kg | ≤ 90   |              |  |                       |
| Mercury   | mg/kg | ≤ 60   |              |  |                       |
| Selenium  | mg/kg | ≤ 500  |              |  |                       |



## 1.2 Leather and Fur

| Parameter                           | Unit  | Requirements   |  | Test method reference   |  |
|-------------------------------------|---|--|--|---|--|
|                                     |   | Children ( $\leq 14$ years)  | Adults ( $> 14$ years)   |   |  |
| Acid boric                          | mg/kg   | $\leq 1000$  |  | Screening Test: acid digestion - ICP-MS<br>Specific Test: aqueous extraction - TEA derivatization - GC-MS |  |
| Asbestos (Appendix 2)               | mg/kg   | Not detected   |  | Microscopic examination   |  |
| Biocides (Appendix 3)               | mg/kg   | $\leq 0,5$ (sum) ( $\leq 36$ months)<br>$\leq 1$ (sum) (PCP and TeCP excluded) |  | Chromatographic Test Methods refer to US<br>EPA 8081  |  |
| Chromium VI                         | mg/kg   | $\leq 3$   |  | EN ISO 17075-2  |  |
| Dimethyl fumarate                   | mg/kg   | $\leq 0,1$   |  | ISO/TS 16186  |  |
| Dioxins and furans (Appendix 6)     | mg/kg   | According to dedicated appendix  |  | Extraction with organic solvent - Analysis by GC-MS   |  |
| Dyes                                | Allergenic Disperse (Appendix 1)  | mg/kg  | Not detectable ( $\leq 5$ mg/kg)                                     |   | DIN 54231  |
|                                     | Azo: aryl amines can be split off under reductive conditions (Appendix 8) | mg/kg  | $\leq 30$ (each)   |   | EN ISO 17234-1,2<br>GB 20400: GB/T 19942<br>JIS L 1940 |
|                                     | Carcinogenic (Appendix 4)   | mg/kg  | Not detectable ( $\leq 5$ mg/kg)                                     |   | DIN 54231 - Analysis TLC and LC-MS<br>ISO 16373-2      |
|                                     | Navy Blue (Appendix 11)   | mg/kg  | Not detectable ( $\leq 1$ mg/kg)                                     |   | Based on DIN 54231                                     |
| Flame Retardants (Appendix 7)       | mg/kg   | Not detectable ( $\leq 5$ mg/kg)   |  | Extraction with organic solvent - Analysis by: GC-MS; GC-ECD;<br>LC-MS - GB/T 24279                       |  |
| Formaldehyde (free and extractable) | mg/kg   | $\leq 20$ ( $\leq 36$ months)<br>$\leq 75$                                     |  | EN ISO 17226-1<br>GB 20400: GB/T 19941  |  |
| Heavy Metals (extractable)          | Cadmium   | mg/kg  | $\leq 0,1$   |   | EN ISO 17072-1   |
|                                     | Lead  | mg/kg  | $\leq 0,8$   |   | EN ISO 17072-1   |
|                                     | Mercury   | mg/kg  | $\leq 0,02$  |   | EN ISO 17072-1   |
| Heavy Metals (total amount)         | Cadmium   | mg/kg  | $\leq 40$  | $\leq 1000$   | EN ISO 17072-2   |
|                                     | Lead  | mg/kg  | $\leq 40$ (jewelry only)<br>$\leq 100$<br>$\leq 90$ (patent leather) | $\leq 100$<br>$\leq 90$ (patent leather)  | EN ISO 17072-2   |
| Mercury compounds (Appendix 10)     | mg/kg   | $\leq 1$ (mercury)   |  | Screening Test method: ISO 17072-2  |  |



| Parameter   | Unit                                   | Requirements                              |   | Test method reference   |                                      |
|---|--|---|---|---|--------------------------------------|
|   |  | Children (≤ 14 years)                     | Adults (> 14 years)                     |   |                                      |
| Nonylphenols (NP)<br>Octylphenols (OP) (Appendix 14)                                | mg/kg                                  | ≤ 100 (sum)                               |   | Extraction with organic solvent - Analysis by GC-MS refer to ISO 18857-1                      |                                      |
| Nonylphenoethoxylates (NPEO)<br>Octylphenoethoxylates (OPEO)<br>(Appendix 13)       | mg/kg                                  | ≤ 100 (sum)                               |   | Extraction with organic solvent - Analysis by LC-MS<br>ISO 18218-1                            |                                      |
| Organotin compounds: DBT, DOT,<br>TBT, TBTO, TPhT                                   | mg/kg                                  | ≤ 0,5 (TBT, TBTO, TPhT)<br>≤ 1 (DBT, DOT) | ≤ 1 (TBT, TBTO, TPhT)<br>≤ 2 (DBT, DOT) | ISO/TS 16179  |                                      |
| Ortho-phenylphenol  | mg/kg                                  | ≤ 750                                     |   | ISO 13365   |                                      |
| Pentachlorophenol (PCP)<br>Tetrachlorophenols (2,3,4,5-; 2,3,4,6-;<br>2,3,5,6-TeCP) | mg/kg                                  | ≤ 0,5 (sum)                               |   | EN ISO 17070  |                                      |
| Perfluorooctanesulfonates (PFOS)<br>Perfluorooctanoic Acid (PFOA)                   | µg/m <sup>2</sup>                      | ≤ 1 (PFOS) (patent leather)<br>≤ 1 (PFOA) |   | ISO 23702-1   |                                      |
| Perfluorooctanoic Acid (PFOA) and its<br>salts (Appendix 15)                        | µg/kg                                  | ≤ 25                                      |   | ISO 23702-1   |                                      |
| PFOA-related substances<br>(Appendix 15)  |  | ≤ 1000 (sum)                              |   |   |                                      |
| pH (ΔpH)  | pH                                     | 3,2 ÷ 7,5 (ΔpH ≤ 0,7)                     |   | EN ISO 4045   |                                      |
| Phthalates<br>(Appendix 16)   | BBP, DBP, DEHP,<br>DIBP, DINP          | mg/kg                                     | ≤ 50 (each)                             |   | CPSC-CH-C1001-09.4<br>Ref. ISO 16181 |
|   | DIDP, DNOP                             | mg/kg                                     | ≤ 1000 (sum)                            |   |                                      |
|   | DHNU, DPP,<br>DHP-DnHP,<br>DIHP, DMEP, | mg/kg                                     | ≤ 1000 (sum)<br>≤ 500 (each, ≤ 3 years) | ≤ 1000 (sum)  |                                      |
|   | All other esters of<br>o-phthalic acid | mg/kg                                     | ≤ 500 (each, ≤ 3 years)                 | N.A.  |                                      |
| Polychlorobiphenyls (PCB)<br>(Appendix 17)  | mg/kg                                  | ≤ 0,1                                     |   | Ref. EPA 3540C + EPA 8082A  |                                      |
| Polychloronaphthalenes (PCN)<br>(Appendix 18)                                       | mg/kg                                  | ≤ 1                                       |   | Ref. EPA 3550C + EPA 8270E  |                                      |
| Short chained chloroparaffines<br>(SCCPs: C <sub>10</sub> -C <sub>13</sub> )        | mg/kg                                  | ≤ 50 (sum)                                |   | ISO 18219   |                                      |
| Solvents (Appendix 20)  | mg/kg                                  | According to dedicated appendix           |   | GB 19340:2003 "Extraction HS - SPME or Purge & Trap and<br>Analysis by GC-MS"<br>ISO/TS 16189 |                                      |



**Additional Requirements for Painted and Coated Leather and Fur - Children Products (only for 0-3 years “Infants” and 3-13 years “Children”)**

| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements | Test method reference   |
|---|-------|--------------|---|
| Antimony                                | mg/kg | ≤ 60         | EN 71-3<br>KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |
| Arsenic                                 | mg/kg | ≤ 25         |   |
| Barium                                  | mg/kg | ≤ 1000       |   |
| Cadmium                                 | mg/kg | ≤ 75         |   |
| Chromium (total amount)                 | mg/kg | ≤ 60         |   |
| Lead                                    | mg/kg | ≤ 90         |   |
| Mercury                                 | mg/kg | ≤ 60         |   |
| Selenium                                | mg/kg | ≤ 500        |   |

**Additional Requirements for Watches Straps and Similar**

| Parameter                      |                                     | CAS Nr.    | Unit  | Requirements | Test method reference  |
|--------------------------------|-------------------------------------|------------|-------|--------------|--|
| Biocides                       | 2-Octylisothiazol-3(2H)-on          | 26530-20-1 | mg/kg | ≤ 250        | ISO 4044 (grinded)<br>ISO 13365<br>or Solvent extraction GC-MS |
|                                | 2-Phenylphenol/ortho-Phenylphenol   | 90-43-7    | mg/kg | ≤ 500        |  |
|                                | 2-(Thiocyanomethylthio)benzothiazol | 21564-17-0 | mg/kg | ≤ 500        |  |
|                                | 4-Chloro-3-methylphenol             | 59-50-7    | mg/kg | ≤ 600        |  |
| Heavy Metals<br>(total amount) | Arsenic                             | 7440-38-2  | mg/kg | ≤ 1          | ISO 4044 (cut or grinded)<br>ISO 17072-2                       |
|                                | Cadmium                             | 7440-43-9  | mg/kg | ≤ 100        |  |
|                                | Lead                                | 7439-92-1  | mg/kg | ≤ 90         |  |
|                                | Tin                                 | 744031-5   | mg/kg | ≤ 1          |  |



## 1.3 Plastic

| Parameter   | Unit                                | Requirements                              |   | Test method reference  |   |
|---|-------------------------------------|---|---|--|---|
|   |                                     | Children (≤ 14 years)                     | Adults (> 14 years)                     |  |   |
| Asbestos (Appendix 2)   | mg/kg                               | Not detected                              |   | Microscopic examination  |   |
| Bisphenol A   | mg/L                                | ≤ 0,04                                    |   | EN 71-10/11 (migration)  |   |
| Dioxin and Furans (Appendix 6)  | mg/kg                               | According to dedicated table (Appendix 6) |   | Extraction with organic solvent - GC-MS  |   |
| Flame Retardants (Appendix 7)   | mg/kg                               | Not detectable (≤ 5 mg/kg)                |   | Extraction with organic solvent - Analysis by GC-MS; GC-ECD; LC-MS                         |   |
| Heavy Metals (total mount)  | Cadmium                             | mg/kg                                     | ≤ 40                                    | ≤ 100  | EN 1122 (Microwave digestion - ICP)   |
|   | Lead                                | mg/kg                                     | ≤ 40 (jewelry only)                     | ≤ 100  | Microwave digestion; ICP-MS/OES - ref: CPSC-CH-E-1002-08.3<br>CPSC-CH-E-1003-09.1 (painted access.) |
|   |                                     |   | ≤ 90 (coating materials)                | ≤ 90 (coating materials)   |   |
| Mercury   | mg/kg                               | ≤ 10 (coating materials)                  |   | Microwave digestion ICP-MS/OES   |   |
| Organotin compounds: DBT, DOT, TBT, TBTO, TPhT                            | mg/kg                               | ≤ 0,5 (TBT, TBTO, TPhT)<br>≤ 1 (DBT, DOT) | ≤ 1 (TBT, TBTO, TPhT)<br>≤ 2 (DBT, DOT) | ISO/TS 16179   |   |
| Phthalates (Appendix 16)  | BBP, DBP, DEHP, DIBP, DINP          | mg/kg                                     | ≤ 50 (each)                             |  | CPSC-CH-C1001-09.4;<br>ISO 8124-6   |
|   | DIDP, DNOP                          | mg/kg                                     | ≤ 1000 (sum)                            |  |   |
|   | DHNUP, DPP, DHP-DnHP, DIHP, DMEP,   | mg/kg                                     | ≤ 1000 (sum)<br>≤ 500 (each, ≤ 3 years) | ≤ 1000 (sum)   | CPSC-CH-C1001-09.4;<br>ISO 8124-6   |
|   | All other esters of o-phthalic acid | mg/kg                                     | ≤ 500 (each, ≤ 3 years)                 | N.A.   |   |
| Polychlorobiphenyls (PCB) (Appendix 17)                                   | mg/kg                               | ≤ 0,1                                     |   | Ref. EPA 3540C + EPA 8082A   |   |
| Polychloronaphthalenes (PCN) (Appendix 18)                                | mg/kg                               | ≤ 1                                       |   | Ref. EPA 3550C + EPA 8270E   |   |
| Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 19)                | mg/kg                               | ≤ 0,5                                     | ≤ 1                                     |  | AfPS GS 2019:01 PAK   |
| Short chained chloroparaffines (SCCPs: C <sub>10</sub> -C <sub>13</sub> ) | mg/kg                               | ≤ 50 (sum)                                |   | Ref. ISO 18219   |   |
| Solvents (Appendix 20)  | mg/kg                               | According to dedicated appendix           |   | GB 19340:2003 "Extraction HS - SPME or Purge & Trap and Analysis by GC-MS"<br>ISO/TS 16189 |   |



| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements: Children ( $\leq 14$ years) | Test method reference                                       |
|---|-------|---|---|
| Heavy Metals (Appendix 9)               | mg/kg | According to Category III                 | Extractable Heavy Metals: Hydrochloric Acid 0,07M (EN 71-3) |

| Additional Requirements for Painted and Coated Plastic - Children Products (only for 0-3 years “Infants” and 3-13 years “Children”) |       |              |  |
|---|-------|--------------|--|
| Parameter<br>Heavy Metals (extractable)   | Unit  | Requirements | Test method reference  |
| Antimony  | mg/kg | $\leq 60$    | KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |
| Arsenic   | mg/kg | $\leq 25$    |  |
| Barium  | mg/kg | $\leq 1000$  |  |
| Cadmium   | mg/kg | $\leq 75$    |  |
| Chromium (total amount)   | mg/kg | $\leq 60$    |  |
| Lead  | mg/kg | $\leq 90$    |  |
| Mercury   | mg/kg | $\leq 60$    |  |
| Selenium  | mg/kg | $\leq 500$   |  |

## 1.4 Metal

| Parameter  | Unit   | Requirements   |   | Test method reference  |
|--|--|--|---|--|
|  |  | Children ( $\leq 14$ years)  | Adults ( $> 14$ years)                      |  |
| Arsenic (total amount)   | mg/kg  | $\leq 1000$  |   | Microwave digestion ICP-MS/OES<br>GB/T 21198-6 - GB/T 28021  |
| Cadmium (total amount)   | mg/kg  | $\leq 40$  | $\leq 100$                                  | Microwave digestion ICP-MS/OES ref:<br>GB/T 28021  |
| Chromium VI  | mg/kg  | $\leq 1000$  |   | GB/T 28019   |
| Lead (total amount)  | mg/kg  | $\leq 40$ (jewelry only)<br>$\leq 90$<br>$\leq 90$ (coating materials) | $\leq 100$<br>$\leq 90$ (coating materials) | Microwave digestion ICP-MS/OES ref:<br>CPSC-CH-E-1001-08.3<br>CPSC-CH-E-1003-09.1 (painted acc.)<br>GB/T 28021   |
| Mercury (total amount)   | mg/kg  | $\leq 1000$<br>$\leq 10$ (coating materials)                           |   | Microwave digestion ICP-MS/OES<br>GB/T 21198-6 - GB/T 28021  |
| Nickel (released from metal accessories in direct and prolonged contact with skin) | $\mu\text{g}/\text{cm}^2 \times \text{week}$ | $\leq 0,50$<br>$\leq 0,20$ (only for pierced parts of human body)      |   | EN 1811 (no coated, no painted and no plated accessories)<br>EN 12472 + EN 1811 (coated, painted and plated accessories)<br>EN 16128 (spectacle frames and sunglasses) |
| Polychlorobiphenyls (PCB) (Appendix 17)  | mg/kg  | $\leq 0,1$ (coating materials)   |   | Ref. EPA 3540C + EPA 8082A   |
| Polychloronaphthalenes (PCN) (Appendix 18)   | mg/kg  | $\leq 1$ (coating materials)   |   | Ref. EPA 3550C + EPA 8270E   |

| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements: Children ( $\leq 14$ years) | Test method reference                                       |
|---|-------|---|---|
| Heavy Metals (Appendix 9)               | mg/kg | According to Category III                 | Extractable Heavy Metals: Hydrochloric Acid 0,07M (EN 71-3) |

| <b>Additional Requirements for Painted and Coated Metal - Children Products (only for 0-3 years “Infants” and 3-13 years “Children”)</b> |             |                     |  |
|--|-------------|---------------------|--|
| <b>Parameter<br/>Heavy Metals (extractable)</b>  | <b>Unit</b> | <b>Requirements</b> | <b>Test method reference</b>                                       |
| Antimony   | mg/kg       | ≤ 60                | KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |
| Arsenic  | mg/kg       | ≤ 25                |  |
| Barium   | mg/kg       | ≤ 1000              |  |
| Cadmium  | mg/kg       | ≤ 75                |  |
| Chromium (total amount)  | mg/kg       | ≤ 60                |  |
| Lead   | mg/kg       | ≤ 90                |  |
| Mercury  | mg/kg       | ≤ 60                |  |
| Selenium   | mg/kg       | ≤ 500               |  |





## 1.5 Glass and Crystal

| Parameter<br>Heavy Metals (total amount) | Unit  | Requirements   |   | Test method reference  |
|--|-------|--|---|--|
|  |       | Children ( $\leq 14$ years)  | Adults ( $> 14$ years)                      |  |
| Cadmium (total amount)                   | mg/kg | $\leq 40$  | $\leq 1000$                                 | Microwave digestion ICP-MS/OES<br>ref: CPSC-CH-E-1002-08.3       |
| Lead (total amount)                      | mg/kg | $\leq 40$ (jewelry only)<br>$\leq 90$<br>$\leq 90$ (coating materials) | $\leq 100$<br>$\leq 90$ (coating materials) | CPSC-CH-E-1002-08.3<br>CPSC-CH-E-1003-09.1 (painted accessories) |
| Mercury (total amount)                   | mg/kg | $\leq 10$ (coating materials)  |   | Microwave digestion ICP-MS/OES                                   |

| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements: Children ( $\leq 14$ years) | Test method reference                                       |
|---|-------|---|---|
| Heavy metals (Appendix 9)               | mg/kg | According to Category III                 | Extractable Heavy Metals: Hydrochloric Acid 0,07M (EN 71-3) |

### Additional Requirements for Painted and Coated Glass - Children Products (only for 0-3 years "Infants" and 3-13 years "Children")

| Parameter<br>Heavy Metals (extractable) | Unit  | Requirements | Test method reference  |
|---|-------|--------------|--|
| Antimony                                | mg/kg | $\leq 60$    | KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |
| Arsenic                                 | mg/kg | $\leq 25$    |  |
| Barium                                  | mg/kg | $\leq 1000$  |  |
| Cadmium                                 | mg/kg | $\leq 75$    |  |
| Chromium (total amount)                 | mg/kg | $\leq 60$    |  |
| Lead                                    | mg/kg | $\leq 90$    |  |
| Mercury                                 | mg/kg | $\leq 60$    |  |
| Selenium                                | mg/kg | $\leq 500$   |  |

## 1.6 Wood and Similar (Bamboo, Cork, etc.)

| Parameter  | Unit    | Requirements  |  | Test method reference  |
|--|---------|---|--|--|
|  |         | Babies ( $\leq 36$ months)  | Children (3-14 years) & Adults ( $>14$ years)  |  |
| Acid boric   | mg/kg   | $\leq 1000$   |  | Screening Test: acid digestion - ICP-MS;<br>Specific Test: aqueous extraction - TEA derivatization - GC-MS                       |
| Asbestos (Appendix 2)  | mg/kg   | Not detected  |  | Microscopic examination  |
| Dimethyl fumarate  | mg/kg   | $\leq 0,1$  |  | ISO/TS 16186   |
| Flame Retardants (Appendix 7)  | mg/kg   | Not detectable ( $\leq 5$ mg/kg)  |  | Extraction with organic solvent - Analysis by GC-MS; GC-ECD; LC-MS   |
| Formaldehyde (free and extractable)  | mg/kg   | $\leq 20$   | $\leq 75$  | EN 717-3   |
| Heavy Metals (total amount)  | Arsenic | $\leq 1$  |  | Microwave digestion - ICP-MS/OES   |
|  | Cadmium | $\leq 40$   | $\leq 40$ (only for children)<br>$\leq 100$  | EN 1122 Microwave digestion;<br>ICP-MS/OES ref: CPSC-CH-E-1004-11  |
|  | Lead    | $\leq 40$ (jewelry only)<br>$\leq 90$<br>$\leq 90$ (coating materials)          | $\leq 40$ (jewelry only $\leq 14$ )<br>$\leq 90$ ( $\leq 14$ years)<br>$\leq 90$ (coating materials)   | Microwave digestion; ICP-MS/OES - ref: CPSC-CH-E-1002-08.3<br>CPSC-CH-E-1003-09.1 (painted acc.)                                 |
|  | Mercury | $\leq 10$ (painted accessories)   |  | Microwave digestion ICP-MS/OES   |
| Mercury compounds (Appendix 10)  | mg/kg   | $\leq 1$ (mercury)  |  | Microwave digestion; ICP-MS/OES  |
| Organotin compounds: DBT, DOT, TBT, TBTO, TPhT                             | mg/kg   | $\leq 0,5$ (TBT, TBTO, TPhT)<br>$\leq 1$ (DBT, DOT)                             | $\leq 0,5$ (TBT, TBTO, TPhT) (children)<br>$\leq 1$ (DBT, DOT) (children)<br>$\leq 1$ (TBT, TBTO, TPhT) (adult)<br>$\leq 2$ (DBT, DOT) (adult) | ISO/TS 16179   |
| Pentachlorophenol (PCP)<br>Tetrachlorophenol (2,3,5,6-TeCP)                | mg/kg   | $\leq 0,5$  |  | BVL B 82.02-08 (modified) - Potassium Hydroxide extraction direct<br>LC-MS analysis or derivatization followed by GC-MS analysis |
| Polychlorobiphenyls (PCB) (Appendix 17)                                    | mg/kg   | $\leq 0,1$ (coating materials)  |  | Ref. EPA 3540C + EPA 8082A   |
| Polychloronaphthalenes (PCN) (Appendix 18)                                 | mg/kg   | $\leq 1$ (coating materials)  |  | Ref. EPA 3550C + EPA 8270E   |
| Polycyclic Aromatic Hydrocarbons (IPA - PAH) (Appendix 19)                 | mg/kg   | $\leq 0,5$  | $\leq 1$   | AfPS GS 2014:01 PAK  |
| Preservatives: Cyfluthrin, Cypermethrin, Deltamethrin, Lindane, Permethrin | mg/kg   | $\leq 5$ Cyfluthrin, Cypermethrin, Deltamethrin, Permethrin<br>$\leq 1$ Lindane |  | EN 71-9: GC Test Method (GC-MS; GC-ECD);<br>extraction ethylic alcohol/ acetic acid  |



| Parameter              | Unit  | Requirements                    |  | Test method reference  |
|------------------------|-------|---------------------------------|--|--|
|                        |       | Babies ( $\leq 36$ months)      | Children (3-14 years)<br>& Adults ( $>14$ years) |  |
| Solvents (Appendix 20) | mg/kg | According to dedicated appendix |  | GB 19340:2003 "Extraction HS-SPME or Purge & Trap and Analysis by GC-MS"<br>ISO/TS 16189 |

| PARAMETER<br>Heavy Metals (extractable) | Unit  | Requirements: Children ( $\leq 14$ years) | Test method reference                                       |
|---|-------|---|---|
| Heavy metals (Appendix 9)               | mg/kg | According to Category III                 | Extractable Heavy Metals: Hydrochloric Acid 0,07M (EN 71-3) |

| Additional Requirements for Painted and Coated Wood - Children Products (only for 0-3 years "Infants" and 3-13 years "Children") |       |              |  |  |
|--|-------|--------------|--|--|
| Parameter<br>Heavy Metals (extractable)  | Unit  | Requirements |  | Test method reference  |
| Antimony   | mg/kg | $\leq 60$    |  | KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>Hydrochloric Acid 0,07M |
| Arsenic  | mg/kg | $\leq 25$    |  |  |
| Barium   | mg/kg | $\leq 1000$  |  |  |
| Cadmium  | mg/kg | $\leq 75$    |  |  |
| Chromium (total amount)  | mg/kg | $\leq 60$    |  |  |
| Lead   | mg/kg | $\leq 90$    |  |  |
| Mercury  | mg/kg | $\leq 60$    |  |  |
| Selenium   | mg/kg | $\leq 500$   |  |  |

## 1.7 Paper and similar

| Parameter   |             | Unit  | Requirements | Test method reference  |
|---|-------------|-------|--------------|--|
| Heavy Metals<br>(total amount)  | Cadmium     | mg/kg | ≤ 100 (sum)  | Microwave digestion ICP-MS/OES ref:<br>CPSC-CH-E-1002-08.3;<br>Cr VI: EN ISO 17075-2 |
|   | Chromium VI | mg/kg |              |  |
|   | Lead        | mg/kg |              |  |
|   | Mercury     | mg/kg |              |  |
| Formaldehyde (free and extractable)   |             | mg/kg | ≤ 75         | EN 645; EN 1541  |
| Nonylphenols (NP)<br>Octylphenols (OP) (Appendix 14)                              |             | mg/kg | ≤ 100 (sum)  | Extraction with organic solvent<br>Analysis by GC-MS, ref: ISO 18857-1               |
| Nonylphenoxyethoxylates (NPEO)<br>Octylphenoxyethoxylates (OPEO)<br>(Appendix 13) |             | mg/kg | ≤ 100 (sum)  | Extraction with organic solvent<br>Analysis by LC-MS, ref: ISO 18254-1               |

## 1.8 Requirements for Custom Jewellery (metal parts only)

| Parameter  | Unit   | Requirements  |   | Test method reference   |
|--|--|---|---|---|
|  |  | Children ( $\leq 14$ years)                                       | Adults ( $>14$ years)                       |   |
| Arsenic (total amount)   | mg/kg  | $\leq 1000$   |   | Microwave digestion ICP-MS/OES; GB/T 21198-6 - GB/T 28021   |
| Cadmium (total amount)   | mg/kg  | $\leq 40$   | $\leq 100$                                  | Microwave digestion ICP-MS/OES ref: GB/T 28021  |
| Chromium VI  | mg/kg  | $\leq 1000$   |   | GB/T 28019  |
| Lead (total amount)  | mg/kg  | $\leq 40$<br>$\leq 90$ (coating materials)                        | $\leq 100$<br>$\leq 90$ (coating materials) | Microwave digestion ICP-MS/OES ref: CPSC-CH-E-1001-08.3<br>CPSC-CH-E-1003-09.1 (painted acc.)<br>GB/T 28021               |
| Mercury (total amount)   | mg/kg  | $\leq 1000$<br>$\leq 10$ (coating materials)                      |   | Microwave digestion ICP-MS/OES<br>GB/T 21198-6 - GB/T 28021   |
| Nickel (released from metal accessories in direct and prolonged contact with skin) | $\mu\text{g}/\text{cm}^2 \times \text{week}$ | $\leq 0,50$<br>$\leq 0,20$ (only for pierced parts of human body) |   | EN 1811 (no coated, no painted and no plated accessories);<br>EN 12472 + EN 1811 (coated, painted and plated accessories) |

| Extractable Heavy Metals<br>(HCl 0,07M) | Unit  | Requirements          |   | Test method reference   |
|---|-------|-----------------------|---|---|
|   |       | Children (≤ 14 years) | Adults (>14 years)<br>only coated and painted materials |   |
| Aluminium                               | mg/kg | ≤ 70000               | N.A.  | ASTM F963-11<br>KS G ISO 8124-3:2013<br>ISO 8124-3:1997<br>EN 71-3<br>(Adult products: test only if coating material ≥ 10 mg) |
| Antimony                                | mg/kg | ≤ 60                  |   |   |
| Arsenic                                 | mg/kg | ≤ 25                  |   |   |
| Barium                                  | mg/kg | ≤ 1000                |   |   |
| Cadmium                                 | mg/kg | ≤ 17                  | ≤ 75  |   |
| Chromium (total)                        | mg/kg | ≤ 60                  |   |   |
| Chromium (VI)                           | mg/kg | ≤ 0,053               | N.A.  |   |
| Cobalt                                  | mg/kg | ≤ 130                 | N.A.  |   |
| Copper                                  | mg/kg | ≤ 7700                | N.A.  |   |
| Lead                                    | mg/kg | ≤ 23                  | N.A.  |   |
| Manganese                               | mg/kg | ≤ 15000               | N.A.  |   |
| Mercury                                 | mg/kg | ≤ 60                  | ≤ 60  |   |
| Nickel                                  | mg/kg | ≤ 930                 | N.A.  |   |
| Selenium                                | mg/kg | ≤ 460                 |   |   |
| Strontium                               | mg/kg | ≤ 56000               | N.A.  |   |
| Organotin Compounds                     | mg/kg | ≤ 12                  | N.A.  |   |
| Tin                                     | mg/kg | ≤ 180000              | N.A.  |   |
| Zinc                                    | mg/kg | ≤ 46000               | N.A.  |   |



## 1.9 Additional Requirements for Footwear

### Rubber Shoes, Children's Footwear and Children's Canvas Rubber

| Parameter   | Field of application  | Unit                 | Requirements                             |                          |                       | Test method reference                                |                                  |
|---|---|----------------------|--|--------------------------|-----------------------|--|----------------------------------|
|   |   |                      | Infants<br>(≤ 36 months)                 | Children<br>(3-14 years) | Adult<br>Rubber Shoes |  |                                  |
| Chlorinated phenols: PCP and 2,3,5,6-TeCP                     | Uppers, linings and insoles<br>(textile, synthetic leather<br>and artificial leather) | mg/kg                | ≤ 0,5                                    |                          |                       | GB/T 18414.1 - 2                                     |                                  |
| Heavy Metals<br>(extractable)                                 |   | Arsenic              | mg/kg                                    | ≤ 1                      |                       |  | GB/T 17593.4                     |
|   |   | Cadmium              | mg/kg                                    | ≤ 0,1                    |                       |  | GB/T 17593.1                     |
|   |   | Lead                 | mg/kg                                    | ≤ 1                      |                       |  | GB/T 17593.1                     |
| pH Value  |   | pH                   | 4,0 ÷ 9,0                                |                          |                       | GB/T 7573  |                                  |
| Chromium VI   | Leather and fur   | mg/kg                | ≤ 3                                      |                          |                       | EN ISO 17075-2;<br>GB/T 22807                        |                                  |
| Decomposable harmful aromatic amine dye                       | Textile, synthetic<br>Leather,<br>artificial<br>leather, leather and fur              | mg/kg                | ≤ 20 (textile)<br>≤ 30 (leather and fur) |                          |                       | GB/T 17592 textile;<br>GB/T 19942 leather and fur    |                                  |
| Dimethyl fumarate   |   | mg/kg                | ≤ 0,1                                    |                          | N.A.                  | ISO/TS 16186;<br>GB/T 26713                          |                                  |
| Formaldehyde  |   | mg/kg                | ≤ 20                                     | ≤ 75                     | ≤ 150                 | GB/T 2912.1 textile;<br>GB/T 19941 leather and fur   |                                  |
| Colour fastness to rubbing                                    | Lining and insoles (staining)   | gray scale           | ≥ 3                                      | ≥ 2/3                    |                       | QB/T 2882  |                                  |
| N-nitrosamines (Appendix 12)                                  | Rubber<br>components  | mg/kg                | ≤ 0,5                                    |                          |                       | GB/T 24153   |                                  |
| Polycyclic Aromatic Hydrocarbons<br>(IPA - PAH) (Appendix 19) |   | mg/kg                | ≤ 0,5                                    | ≤ 1                      | N.A.                  | Extraction with organic solvent<br>Analysis by GC-MS |                                  |
| Organotin compounds: DOT                                      | All parts of footwear product   | %                    | ≤ 0,1% (1000 mg/kg)                      |                          | N.A.                  | ISO/TS 16179   |                                  |
| Phthalates<br>(Appendix 16)                                   |   | BBP, DBP, DEHP, DINP | mg/kg                                    | ≤ 50 (each)              |                       | N.A.   | ISO/TS 16181; CPSC-CH-C1001-09.4 |
|   |   | DIDP, DNOP           | mg/kg                                    | ≤ 1000 (sum)             |                       | N.A.   | ISO/TS 16181; CPSC-CH-C1001-09.4 |

| Parameter                          | Field of application         | Unit  | Requirements                 | Test method reference |
|------------------------------------|------------------------------|-------|------------------------------|-----------------------|
| <b>Heavy Metals (total amount)</b> |                              |       | <b>Children (≤ 14 years)</b> |                       |
| Arsenic                            | All components and materials | mg/kg | ≤ 100                        | QB/T 4340             |
| Cadmium                            |                              |       |                              |                       |
| Lead                               |                              |       |                              |                       |



## 1.10 Additional Requirements for Children's Products in US Market

Several States (Maine, Oregon, Vermont, etc.) in the US enacted Regulations to map and possibly avoid the use of hazardous chemicals of concern in Children's Products. Suppliers must comply with the non-intentional use of these chemicals; in case of the use cannot be avoided, suppliers must inform us immediately.

A possible presence as contaminant is allowed if the total concentration of each chemical in the material/product is **under 100 mg/kg**. Suppliers must assure that this maximum level of contamination is respected. If the level of contamination is higher, the material/product is not compliant: suppliers must inform us immediately also in this case.

The chemicals involved are listed below. Some chemicals can have different requirements due to specific restrictions as reported in other the sections of this document. Please refer to the following table (limit in mg/kg), bearing in mind that for Children's products in US the total concentration limit is 100 mg/kg.

| Substance  | CAS No.     | 1.1 Textile  | 1.2 Leather & Fur | 1.3 Plastic  | 1.4 Metal    | 1.5 Glass & Crystal | 1.6 Wood & Similar | 1.7 Paper & Similar | 1.8 Jewelry | 1.9 Footwear |
|--|-------------|--------------|-------------------|--------------|--------------|---------------------|--------------------|---------------------|-------------|--------------|
| 1,1,2,2-Tetrachloroethane (Solvents)   | 79-34-5     | 1000         | 1000              | 1000         |              |                     | 1000               |                     |             |              |
| 1,4-Dioxane  | 123-91-1    |              |                   |              |              |                     |                    |                     |             |              |
| 2,4-Diaminotoluene (Azo Dyes)  | 95-80-7     | 20           | 30                |              |              |                     |                    |                     |             |              |
| 2-Aminotoluene (Azo Dyes)  | 95-53-4     | 20           | 30                |              |              |                     |                    |                     |             |              |
| 2-Ethylhexanoic acid   | 149-57-5    |              |                   |              |              |                     |                    |                     |             |              |
| 2-ethylhexyl-2,3,4,5-tetrabromobenzoate (TBB) (Flame Retardants)                         | 183658-27-7 | 5            | 5                 | 5            |              |                     | 5                  |                     |             |              |
| 2-Ethyl-hexyl-4-methoxycinnamate   | 5466-77-3   |              |                   |              |              |                     |                    |                     |             |              |
| 2-Methoxyethanol (Solvents)  | 109-86-4    | 10           | 10                | 10           |              |                     | 10                 |                     |             |              |
| 3,3'-Dimethylbenzidine (Azo Dyes)  | 119-93-7    | 20           | 30                |              |              |                     |                    |                     |             |              |
| 4-chloroaniline (Azo Dyes)   | 106-47-8    | 20           | 30                |              |              |                     |                    |                     |             |              |
| 4-Hydroxybenzoic acid  | 99-96-7     |              |                   |              |              |                     |                    |                     |             |              |
| 4-Nonylphenol (Nonylphenols and Octylphenols)  | 104-40-5    | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-Nonylphenol, branched (Nonylphenols and Octylphenols)                                  | 84852-15-3  | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-Nonylphenol, branched, ethoxylated (Nonylphenolethoxylates and Octylphenolethoxylates) | 127087-87-0 | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-Nonylphenol, ethoxylated (Nonylphenolethoxylates and Octylphenolethoxylates)           | 26027-38-3  | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-Nonylphenyl-polyethylene glycol (Nonylphenolethoxylates and Octylphenolethoxylates)    | 9016-45-9   | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-Octylphenol (Nonylphenols and Octylphenols)  | 1806-26-4   | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| 4-tert-Octylphenol (Nonylphenols and Octylphenols)                                       | 140-66-9    | 100 (sum)    | 100 (sum)         |              |              |                     |                    | 100 (sum)           |             |              |
| Acetaldehyde   | 75-07-0     |              |                   |              |              |                     |                    |                     |             |              |
| Acrylonitrile  | 107-13-1    |              |                   |              |              |                     |                    |                     |             |              |
| Aniline  | 62-53-3     |              |                   |              |              |                     |                    |                     |             |              |
| Antimony (Heavy Metals)  | 7440-36-0   | *extractable | *extractable      | *extractable | *extractable | *extractable        | *extractable       | *extractable        |             |              |
| Antimony Compounds (Heavy Metals)  | various     | *extractable | *extractable      | *extractable | *extractable | *extractable        | *extractable       | *extractable        |             |              |
| Arsenic (Heavy Metals)   | 7440-38-2   | *extractable | 1                 | *extractable | *extractable | *extractable        | 1                  |                     |             | 100          |
| Arsenic Compounds (Heavy Metals)   | various     | *extractable | 1                 | *extractable | *extractable | *extractable        | 1                  |                     |             | 100          |
| Arsenic trioxide   | 1327-53-3   |              |                   |              |              |                     |                    |                     |             |              |





| Substance  | CAS No.     | 1.1 Textile  | 1.2 Leather & Fur | 1.3 Plastic  | 1.4 Metal    | 1.5 Glass & Crystal | 1.6 Wood & Similar | 1.7 Paper & Similar | 1.8 Jewelry | 1.9 Footwear |
|--|-------------|--------------|-------------------|--------------|--------------|---------------------|--------------------|---------------------|-------------|--------------|
| Benzene (Solvents)   | 71-43-2     | 5            | 5                 | 5            |              |                     | 5                  |                     |             |              |
| Benzophenone-2 (Bp-2)  | 131-55-5    |              |                   |              |              |                     |                    |                     |             |              |
| Bis (2-ethylhexyl) tetrabromophthalate (TBPH) (Flame Retardants)               | 26040-51-7  | 5            | 5                 | 5            |              |                     | 5                  |                     |             |              |
| Bis(chloromethyl)propane-1,3-diyl tetrakis-(2-chloroethyl) bis(phosphate) (V6) | 38051-10-4  |              |                   |              |              |                     |                    |                     |             |              |
| Bisphenol A (BPA)  | 80-05-7     |              |                   | *extractable |              |                     |                    |                     |             |              |
| Bisphenol F (BPF)  | 620-92-8    |              |                   |              |              |                     |                    |                     |             |              |
| Bisphenol S (BPS)  | 80-09-1     |              |                   |              |              |                     |                    |                     |             |              |
| Butyl benzyl phthalate (BBP) (Phthalates)                                      | 85-68-7     | 50           | 50                | 50           |              |                     |                    |                     |             | 50           |
| Butyl paraben  | 94-26-8     |              |                   |              |              |                     |                    |                     |             |              |
| Butylated hydroxyanisole (BHA)   | 25013-16-5  |              |                   |              |              |                     |                    |                     |             |              |
| C.I. solvent yellow 14   | 842-07-9    |              |                   |              |              |                     |                    |                     |             |              |
| Cadmium (Heavy Metals)   | 7440-43-9   | 40           | 40                | 40           | 40           | 40                  | 40                 | 100 (sum)           | 40          | 100          |
| Cadmium Compounds (Heavy Metals)   | various     | 40           | 40                | 40           | 40           | 40                  | 40                 | 100 (sum)           | 40          | 100          |
| Carbon disulfide   | 75-15-0     |              |                   |              |              |                     |                    |                     |             |              |
| Chlorinated paraffins  | 108171-26-2 |              |                   |              |              |                     |                    |                     |             |              |
| Cobalt (Co) (Heavy metals)   | 7440-48-4   | *extractable |                   | *extractable | *extractable | *extractable        | *extractable       | *extractable        |             |              |
| Cobalt Compounds (Heavy metals)  | various     | *extractable |                   | *extractable | *extractable | *extractable        | *extractable       | *extractable        |             |              |
| Decabromodiphenyl ethane (DBDPE)   | 84852-53-9  |              |                   |              |              |                     |                    |                     |             |              |
| Decabromodiphenyl ether (BDE-209) (Flame Retardants)                           | 1163-19-5   | 5            | 5                 | 5            |              |                     | 5                  |                     |             |              |
| Di-(2-methoxyethyl) phthalate (DMEP) (Phthalates)                              | 117-82-8    | 1000 (sum)   | 1000 (sum)        | 1000 (sum)   |              |                     |                    |                     |             |              |
| Di-2-ethylhexyl phthalate (DEHP) (Phthalates)                                  | 117-81-7    | 50           | 50                | 50           |              |                     |                    |                     |             | 50           |
| Dicyclohexyl phthalate (DCHP) (Phthalates)                                     | 84-61-7     | 500          | 500               | 500          |              |                     |                    |                     |             |              |
| Diethyl phthalate (DEP) (Phthalates)   | 84-66-2     | 500          | 500               | 500          |              |                     |                    |                     |             |              |
| Diisobutyl phthalate (DIBP) (Phthalates)                                       | 84-69-5     | 50           | 50                | 50           |              |                     |                    |                     |             |              |
| Diisodecyl phthalate (DIDP) (Phthalates)                                       | 26761-40-0  | 1000 (sum)   | 1000 (sum)        | 1000 (sum)   |              |                     |                    |                     |             | 1000 (sum)   |
| Diisononyl phthalate (unbranched) (DINP) (Phthalates)                          | 28553-12-0  | 50           | 50                | 50           |              |                     |                    |                     |             | 50           |
| Dimethyl arsenic acid  | 75-60-5     |              |                   |              |              |                     |                    |                     |             |              |
| Di-n-butyl phthalate (DBP) (Phthalates)  | 84-74-2     | 50           | 50                | 50           |              |                     |                    |                     |             | 50           |
| Di-n-hexyl phthalate (DnHP) (Phthalates)                                       | 84-75-3     | 1000 (sum)   | 1000 (sum)        | 1000 (sum)   |              |                     |                    |                     |             |              |
| Di-n-octyl phthalate (DnOP) (Phthalates)                                       | 117-84-0    | 1000 (sum)   | 1000 (sum)        | 1000 (sum)   |              |                     |                    |                     |             | 1000 (sum)   |
| Dipentyl phthalate (DPP) (Phthalates)  | 131-18-0    | 1000 (sum)   | 1000 (sum)        | 1000 (sum)   |              |                     |                    |                     |             |              |
| Estragole  | 140-67-0    |              |                   |              |              |                     |                    |                     |             |              |
| Ethyl paraben  | 120-47-8    |              |                   |              |              |                     |                    |                     |             |              |
| Ethylbenzene   | 100-41-4    |              |                   |              |              |                     |                    |                     |             |              |
| Ethylene glycol  | 107-21-1    |              |                   |              |              |                     |                    |                     |             |              |

| Substance  | CAS No.    | 1.1 Textile         | 1.2 Leather & Fur   | 1.3 Plastic | 1.4 Metal | 1.5 Glass & Crystal | 1.6 Wood & Similar | 1.7 Paper & Similar | 1.8 Jewelry  | 1.9 Footwear |
|--|------------|---------------------|---------------------|-------------|-----------|---------------------|--------------------|---------------------|--------------|--------------|
| Ethylene glycol monoethyl ether  | 110-80-5   |                     |                     |             |           |                     |                    |                     |              |              |
| Ethylhexyl diphenyl phosphate (EHDPP)  | 1241-94-7  |                     |                     |             |           |                     |                    |                     |              |              |
| Formaldehyde and formaldehyde releasing compounds <sup>(1)</sup>   | 50-00-0    | 16                  | 20                  |             |           |                     | 20                 | 20                  |              | 20           |
| Hexabromocyclododecane (Flame Retardants)  | 25637-99-4 | 5                   | 5                   | 5           |           |                     | 5                  |                     |              |              |
| Hexachlorobenzene (Biocides + Chlorobenzenes and Chlorotoluenes)   | 118-74-1   | 0,5                 | 0,5                 |             |           |                     |                    |                     |              |              |
| Hexachlorobutadiene (HCDB)   | 87-68-3    |                     |                     |             |           |                     |                    |                     |              |              |
| Isopropylated triphenyl phosphate (IPTPP)  | 68937-41-7 |                     |                     |             |           |                     |                    |                     |              |              |
| Lead (Heavy Metals)  | 7439-92-1  | 90                  | 90                  | 90          | 90        | 90                  | 90                 | 100 (sum)           | 40           | 100          |
| Lead Compounds (Heavy Metals)  | various    | 90                  | 90                  | 90          | 90        | 90                  | 90                 | 100 (sum)           | 40           | 100          |
| Mercury (Heavy Metals + Mercury Compounds)   | 7439-97-6  | 1                   | 1                   | 10          | 10        | 10                  | 1                  | 100 (sum)           | *extractable |              |
| Mercury Compounds (Heavy Metals + Mercury Compounds)   | various    | 1                   | 1                   | 10          | 10        | 10                  | 1                  | 100 (sum)           | *extractable |              |
| Methyl ethyl ketone  | 78-93-3    |                     |                     |             |           |                     |                    |                     |              |              |
| Methyl mercury   | 22967-92-6 |                     |                     |             |           |                     |                    |                     |              |              |
| Methyl paraben   | 99-76-3    |                     |                     |             |           |                     |                    |                     |              |              |
| Methylene chloride (Solvents)  | 75-09-2    | 50 (sum)            | 50 (sum)            | 50 (sum)    |           |                     | 50 (sum)           |                     |              |              |
| Molybdenum   | 7439-98-7  |                     |                     |             |           |                     |                    |                     |              |              |
| Molybdenum Compounds   | various    |                     |                     |             |           |                     |                    |                     |              |              |
| N-Methylpyrrolidone (Solvents)   | 872-50-4   | 1000                | 1000                | 1000        |           |                     | 1000               |                     |              |              |
| N-nitrosodimethylamine (N-nitrosamines)  | 62-75-9    |                     |                     |             |           |                     |                    |                     |              | 0,5          |
| N-Nitrosodiphenylamine   | 86-30-6    |                     |                     |             |           |                     |                    |                     |              |              |
| Nonyl phenol (Nonylphenols and Octylphenols)   | 140-40-5   | 100 (sum)           | 100 (sum)           |             |           |                     |                    | 100 (sum)           |              |              |
| Octamethylcyclotetrasiloxane   | 556-67-2   |                     |                     |             |           |                     |                    |                     |              |              |
| Pentachlorobenzene (Chlorobenzenes and Chlorotoluenes)   | 608-93-5   | 1                   |                     |             |           |                     |                    |                     |              |              |
| Perfluorooctanesulfonates (PFOS)   | 1763-23-1  | 1 µg/m <sup>2</sup> | 1 µg/m <sup>2</sup> |             |           |                     |                    |                     |              |              |
| Perfluorooctanoic Acid (PFOA)  | 335-67-1   | 25 µg/kg            | 25 µg/kg            |             |           |                     |                    |                     |              |              |
| Phenol   | 108-95-2   |                     |                     |             |           |                     |                    |                     |              |              |
| Phthalic anhydride   | 85-44-9    |                     |                     |             |           |                     |                    |                     |              |              |
| Polyoxyethylene nonylphenylether, branched (NPES 3-18) (Nonylphenolethoxylates and Octylphenolethoxylates) | 68412-54-4 | 100 (sum)           | 100 (sum)           |             |           |                     |                    | 100 (sum)           |              |              |
| Propyl paraben   | 94-13-3    |                     |                     |             |           |                     |                    |                     |              |              |
| Short-chain chlorinated paraffins (SCCP)   | 85535-84-8 | 50                  | 50                  | 50          |           |                     |                    |                     |              |              |
| Styrene  | 100-42-5   |                     |                     |             |           |                     |                    |                     |              |              |
| Tetrabromobisphenol A (TBBPA) (Flame Retardants)   | 79-94-7    | 5                   | 5                   | 5           |           |                     | 5                  |                     |              |              |
| Tetrachloroethene (Solvents)   | 127-18-4   | 1000                | 1000                | 1000        |           |                     | 1000               |                     |              |              |
| Toluene (Solvents)   | 108-88-3   | 200                 | 200                 | 200         |           |                     | 200                |                     |              |              |
| Tricresyl phosphate (TCP)  | 1330-78-5  |                     |                     |             |           |                     |                    |                     |              |              |

| Substance   | CAS No.    | 1.1 Textile | 1.2 Leather & Fur | 1.3 Plastic | 1.4 Metal | 1.5 Glass & Crystal | 1.6 Wood & Similar | 1.7 Paper & Similar | 1.8 Jewelry | 1.9 Footwear |
|---|------------|-------------|-------------------|-------------|-----------|---------------------|--------------------|---------------------|-------------|--------------|
| Tri-n-butyl phosphate (TNBP)  | 126-73-8   |             |                   |             |           |                     |                    |                     |             |              |
| Triphenyl phosphate (TPP)   | 115-86-6   |             |                   |             |           |                     |                    |                     |             |              |
| Tris (2,3-dibromopropyl) phosphate (TDBPP) (Flame Retardants)                               | 126-72-7   | 5           | 5                 | 5           |           |                     | 5                  |                     |             |              |
| Tris(1,3-dichloro-2-propyl) phosphate (TDCPP) (Flame Retardants)                            | 13674-87-8 | 5           | 5                 | 5           |           |                     | 5                  |                     |             |              |
| Tris(1-chloro-2-propyl) phosphate (TCPP) (Flame Retardants)                                 | 13674-84-5 | 5           | 5                 | 5           |           |                     | 5                  |                     |             |              |
| Tris(2-chloroethyl) phosphate (TCEP) (Flame Retardants)                                     | 115-96-8   | 5           | 5                 | 5           |           |                     | 5                  |                     |             |              |
| Unbekanntes Farbmittel 94 (SIN list)<br>(Nonylphenolethoxylates and Octylphenolethoxylates) | 37205-87-1 | 100 (sum)   | 100 (sum)         |             |           |                     |                    | 100 (sum)           |             |              |

(1) Formaldehyde releasing compounds are defined as "substances that are intentionally added to release formaldehyde". Among these substances, we can list many preservatives, as 5-Bromo-5-nitro-1,3-dioxane, Bronopol, Diazolidinyl urea, DMDM hydantoin (1,3-bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione), Imidazolidinyl urea, Phenylmethoxy methanol, Methenamine, Quaternium-15, Sodium N-(hydroxymethyl) glycinate, etc.

## 2. KERING PRODUCT SAFETY REQUIREMENTS

### 2.1 Main Requirements (All Products)

| Parameter          | Field of application | Requirements   | Test method reference  |
|--------------------|----------------------|--|--|
| Drawstrings        | ≤ 14 years           | According to Test method reference   | GB 31701<br>EN 14682<br>ASTM F1816                               |
| Magnetic component | ≤ 14 years           | ≤ 8 years: No magnetic component   | ISO 8124-1   |
|                    |                      | > 8 years:<br>Magnetic Flux Index < 50 kG <sup>2</sup> mm <sup>2</sup> and in compliance in small part test<br>Specific warning is mandatory |  |
| Sharp edge         | All products         | No sharp edge  | GB/T 31702; EN-71-1;<br>16 CFR Parts 1500.49<br>ASTM F 963 4.7   |
| Sharp point        | All products         | No sharp point   | GB/T 31702 ; EN-71-1 ;<br>16 CFR Parts 1500.48<br>ASTM F 963 4.8 |
| Small parts        | ≤ 36 months          | No small parts   | GB 31701; EN-71-1<br>16 CFR Parts 1501<br>ASTM F 963 4.6         |



## 2.2 Flammability for Textile (Raw Material and Finished Product)

| Field of application                        | Requirements  | Country     | Test method reference                 |
|---|---|-------------|---------------------------------------|
| Children Sleepwear<br>(0-14 years)          | Flame spread time. When tested in accordance with ISO 6941 the flame spread time shall be 12 sec. or greater in the lengthwise direction and the width-wise direction, and no one determination of the time to burn a test specimen shall be less than 10 seconds in either the lengthwise direction or the width-wise direction.   | Australia   | AS/NZS 1249:2014                      |
|   | An average char length for five specimens that does not exceed 178 mm; and not more than one individual specimen with a char length equal to the full length of the specimen (254 mm). Remark: tight-fitting sleepwear when tested in accordance with CGSB standard CAN/CGSB 4.2 No. 27.5 must have a flame spread time of more than seven seconds.   | Canada      | Method F-17                           |
|   | According to field of application and test method reference. From size 9 (one-piece garment, exceed 64.8 cm in length; if a two-piece garment, has piece exceeding 40 cm in length) up to size 14   | USA         | 16 CFR Parts 1615 & 1616              |
| Children's textile products<br>(0-14 years) | The outer-layer fabrics (and lining that can be exposed during normal use of the products) are examined; wool, acrylic, modified acrylic, polyamide, polypropylene and polyester textiles as well as the textiles of these fiber blending are not examined; the textiles with mass per unit area greater than 90g/m <sup>2</sup> are not examined.<br>Plain Surface Fabric: Class 1;<br>Raised Surface Fabric: Class 1.   | China       | GB/T 14644                            |
| Children & Adults Clothing                  | The flame spread over 127 mm may not be shorter than 4 seconds.   | Netherlands | ASTM D1230                            |
|   | Clothing Products for children in sizes up to and including 170 cm by testing the fabric should not have a life of 7 seconds or less.<br>Clothing Products for adults: flame spread of 127 mm must be no less than 4 seconds.<br>Other apparel products and fabric suitable for clothing such as when testing the fabric should not have a burn time of 5 seconds or less.  | Norway      | ASTM D1230-61                         |
|   | Textile materials should not be flammable and combustible that they pose a disproportionately high risk. Garments, and yarns for the manufacture of garments should not have rapid flame spread on its surface.   | Switzerland | SN EN 1101; SN EN 1102;<br>SN EN 1103 |
|   | Plain Surface Fabric: Class 1;<br>Raised Surface Fabric: Class 1 - Class 2.<br>Exemption:<br>Plain surface fabrics: with weight exceeding 2.6 oz/yd <sup>2</sup> (about 88 g/m <sup>2</sup> ) or not weight dependent if obtained entirely or with a blend only made of the following fibers: acrylic, mod acrylic, nylon, olefin, polyester, wool.<br>Raised surface fabrics: not weight dependent if obtained entirely or with a blend only made of the following fibers: acrylic, mod acrylic, nylon, olefin, polyester, wool. | USA         | 16 CFR Parts 1610                     |
| Children & Adults Nightwear                 | Children's nightwear: marker thread (520 mm) not severed in less than 17 seconds, no ignition of filter paper by flaming debris in less than 17 seconds. Adult nightwear: marker thread (520 mm) not severed in less than 10 seconds and no ignition of filter paper by flaming debris in less than 10 seconds.   | Netherlands | EN 1103                               |
|   | Meet Flammability Standard BS 5722 or labeled appropriately: 300 mm trip threat not severed in less than 25 seconds and 600 mm trip thread not severed in less than 50 seconds.   | UK          | BS 5722; BS 5438; BS 5651             |
| General textile products                    | Textile product are prohibited if they have a flame spread time of one of the following: 3.5 seconds or less, if the product does not have a raised fiber surface; or 4 seconds or less, if the product has a raised fiber surface and exhibits ignition or fusion of its base fibers.  | Canada      | CAN/CGSB 4.2 N. 27.5-94               |
|   | Textile materials should not be flammable and combustible that they pose a disproportionately high risk. Garments, and yarns for the manufacture of garments should not have rapid flame spread on its surface.   | Switzerland | SN EN 1101; SN EN 1102;<br>SN EN 1103 |
| Vinyl plastic film                          | The rate of burning shall not exceed 1.2 in/sec.  | USA         | 16 CFR 1611                           |



### 2.3 Hygiene and Cleanliness for Feather and Down

| Parameter                          | Unit                         | Requirements   | Test method reference |
|------------------------------------|------------------------------|----------------|-----------------------|
| Mesophilic aerobic microbial count | Colony Forming units (CFU/g) | $< 10^6$       | EN 1884               |
| Oxygen index number                | Oxygen index number          | $\leq 20$      | EN 1162               |
|                                    |                              | $\leq 4,8$     | JIS L1903             |
|                                    |                              | $\leq 10$      | ASTM D-4522           |
| Salmonella                         | Colony Forming units (CFU/g) | Absent in 20 g | EN 1884               |
| Streptococci                       | Colony Forming units (CFU/g) | $< 10^2$       | EN 1884               |
| Sulphite reducing clostridia count | Colony Forming units (CFU/g) | $< 10^2$       | EN 1884               |



### 3. GLOSSARY: abbreviations and definitions

- CAS = Chemical Abstracts Service. CAS Registry Numbers (often referred to as CAS RNs or CAS Numbers) are unique identifiers for chemical substances.
- CEN = European Committee for Standardization.
- CEN/TS = Technical Specification established by CEN.
- CPSC = Consumer Product Safety Commission. Main U.S. government agency responsible for product safety and for enforcement of CPSIA.
- CPSIA = Consumer Product Safety Improvement Act.
- CFU (Colony Forming Units) = unit used to estimate the number of viable bacteria or fungal cells in a sample: the value shown is the base 10 logarithms of the concentration.
- DIN = German Institute for Standardisation (Deutsches Institut für Normung).
- ECD = Electron Capture Detector.
- EN = European Standard.
- EPA = Environmental Protection Agency (U.S.).
- GB = Chinese national standards issued by the Standardization Administration of China (SAC), the Chinese National Committee of the ISO and IEC. GB are mandatory standards.
- GB/T = "recommended" Chinese standards.
- GC-MS = Gas Chromatography/Mass Spectrometer.
- ICP-MS = Inductively Coupled Plasma Mass Spectrometry.
- ISO = International Organization for Standardization.
- ISO/TS = ISO technical specification.
- JIS = Japanese Industrial Standard.
- LFGB = Lebensmittel-, Bedarfsgegenstände- und Futtermittelgesetzbuch - German Law Book on food, consumer article and feed.
- LC-MS = Liquid Chromatography/Mass Spectrometer.
- mg/L = milligram per liter.
- mg/kg = milligram per kilogram, unit describing concentrations of chemical substances. 1 mg/kg can also be notated as 1 ppm (Parts Per Million) or 1 microgram per gram ( $\mu\text{g/g}$ ).
- pH = potential of hydrogen, is a numeric scale used to specify the acidity or basicity of an aqueous solution.
- N.A. = Not applicable.
- Not detectable ( $\leq$  XX mg/kg) = the number XX is the lowest limit value which can be detected by the selected test method.
- Not detected = the substance must not be present in the finished product.
- REACH = Regulation on Registration, Evaluation, Authorisation and Restriction of Chemicals.
- SPME = Solid-phase micro extraction.
- SVHC = Substance of Very High Concentration.
- TLC = Thin-Layer Chromatography.
- UNI = Ente Nazionale Italiano di Unificazione, is a non-profit private association recognized by Italian State and the European Union.

### 4. TRANSLATION OF UNITS: conversion table for mg/kg (ppm) and %

|                    |          |         |        |       |      |       |        |         |          |
|--------------------|----------|---------|--------|-------|------|-------|--------|---------|----------|
| <b>mg/kg (ppm)</b> | 0,01     | 0,1     | 1      | 10    | 100  | 1.000 | 10.000 | 100.000 | 1000.000 |
| <b>%</b>           | 0,000001 | 0,00001 | 0,0001 | 0,001 | 0,01 | 0,1   | 1      | 10      | 100      |



## 5. APPENDIX: INDIVIDUAL SUBSTANCES

1. Allergenic Disperse Dyes
2. Asbestos
3. Biocides
4. Carcinogenic Dyes
5. Chlorobenzenes and Chlorotoluenes
6. Dioxin and Furans
7. Flame Retardants
8. Forbidden Aryl amines
9. Heavy Metals (extractable)
10. Mercury compounds
11. Navy Blue
12. N-nitrosamines
13. Nonylphenoxyethoxylates (NPEO) - Octylphenoxyethoxylates (OPEO)
14. Nonylphenols (NP) - Octylphenols (OP)
15. PFOA, its salts and PFOA-related substances
16. Phthalates
17. Polychlorobiphenyls (PCB)
18. Polychloronaphthalenes (PCN)
19. Polycyclic Aromatic Hydrocarbons (IPA - PAH)
20. Solvents: Chlorinated Solvents, Volatile Organic Compound (VOC) and Other Solvents



| Appendix 1: Allergenic Disperse Dyes  |                              | C.I. No.    | CAS No.    |
|---|------------------------------|-------------|------------|
| 1   | C.I. Disperse Blue 1         | C.I. 64 500 | 2475-45-8  |
| 2   | C.I. Disperse Blue 3         | C.I. 61 505 | 2475-46-9  |
| 3   | C.I. Disperse Blue 7         | C.I. 62 500 | 3179-90-6  |
| 4   | C.I. Disperse Blue 26        | C.I. 63 305 | 3860-63-7  |
| 5   | C.I. Disperse Blue 102       |             | 12222-97-8 |
| 6   | C.I. Disperse Blue 106       |             | 12223-01-7 |
| 7   | C.I. Disperse Blue 124       |             | 61951-51-7 |
| 8   | C.I. Disperse Brown 1        |             | 23355-64-8 |
| 9   | C.I. Disperse Orange 1       | C.I. 11 080 | 2581-69-3  |
| 10  | C.I. Disperse Orange 3       | C.I. 11 005 | 730-40-5   |
| 11  | C.I. Disperse Orange 37/76   | C.I. 11 132 | 12223-33-5 |
| 12  | C.I. Disperse Orange 59      | C.I. 11 132 |            |
| 13  | C.I. Disperse Orange 149 (*) |             | 85136-74-9 |
| 14  | C.I. Disperse Red 1          | C.I. 11 110 | 2872-52-8  |
| 15  | C.I. Disperse Red 11         | C.I. 62 015 | 2872-48-2  |
| 16  | C.I. Disperse Red 17         | C.I. 11 210 | 3179-89-3  |
| 17  | C.I. Disperse Yellow 1       | C.I. 10 345 | 119-15-3   |
| 18  | C.I. Disperse Yellow 3       | C.I. 11 855 | 2832-40-8  |
| 19  | C.I. Disperse Yellow 9       | C.I. 10 375 | 6373-73-5  |
| 20  | C.I. Disperse Yellow 23 (*)  |             | 6250-22-3  |
| 21  | C.I. Disperse Yellow 39      |             | 12236-29-2 |
| 22  | C.I. Disperse Yellow 49      |             | 54824-37-2 |
| (*) Azo dye from which forbidden aryl amine (4-amino azobenzene) can be split off under reductive conditions. |                              |             |            |

| Appendix 2: Asbestos |               | CAS No.    |
|----------------------|---------------|------------|
| 1                    | Actinolite    | 77536-66-4 |
| 2                    | Amosite       | 12172-73-5 |
| 3                    | Anthophyllite | 77536-67-5 |
| 4                    | Chrysotile    | 12001-29-5 |
| 5                    | Crocidolite   | 12001-28-4 |
| 6                    | Tremolite     | 77536-68-6 |

| Appendix 3: Biocides |                         | CAS No.            |
|----------------------|-------------------------|--------------------|
| 1                    | Aldrine                 | 309-00-2           |
| 2                    | Azinophosetyl           | 2642-71-9          |
| 3                    | Azinophosmethyl         | 86-50-0            |
| 4                    | Bromophos-ethyl         | 4824-78-6          |
| 5                    | Captafol                | 2425-06-1          |
| 6                    | Carbaryl                | 63-25-2            |
| 7                    | Chlordane               | 57-74-9            |
| 8                    | Chlordimeform           | 6164-98-3          |
| 9                    | Chlorphenvinphos        | 470-90-6           |
| 10                   | Coumaphos               | 56-72-4            |
| 11                   | Cyfluthrin              | 68359-37-5         |
| 12                   | Cyhalothrin             | 91465-08-6         |
| 13                   | Cypermethrin            | 52315-07-8         |
| 14                   | DDD                     | 53-19-0, 72-54-8   |
| 15                   | DDE                     | 3424-82-6, 72-55-9 |
| 16                   | DDT                     | 50-29-3, 789-02-6  |
| 17                   | DEF                     | 78-48-8            |
| 18                   | Deltamethrin            | 52918-63-5         |
| 19                   | Diazinon                | 333-41-5           |
| 20                   | Dichlorprop             | 120-36-5           |
| 21                   | Dicrotophos             | 141-66-2           |
| 22                   | Dieldrin                | 60-57-1            |
| 23                   | Dimethoate              | 60-51-5            |
| 24                   | Dinoseb and salts       | 88-85-7            |
| 25                   | DTTB                    | 57648-21-2         |
| 26                   | Endosulfan ( $\alpha$ ) | 959-98-8           |
| 27                   | Endosulfan ( $\beta$ )  | 33213-65-9         |
| 28                   | Endrine                 | 72-20-8            |
| 29                   | Esfenvalerat            | 66230-04-4         |

| Appendix 3: Biocides |                                | CAS No.    |
|----------------------|--------------------------------|------------|
| 30                   | Fenvalerate                    | 51630-58-1 |
| 31                   | Heptachlor                     | 76-44-8    |
| 32                   | Heptachlorepoxyde              | 1024-57-3  |
| 33                   | Hexachlorobenzene              | 118-74-1   |
| 34                   | $\alpha$ -Hexachlorcyclohexane | 319-84-6   |
| 35                   | $\beta$ -Hexachlorcyclohexane  | 319-85-7   |
| 36                   | $\delta$ -Hexachlorcyclohexane | 319-86-8   |
| 37                   | Lindane (g-HCH)                | 58-89-9    |
| 38                   | Malathion                      | 121-75-5   |
| 39                   | MCPA                           | 94-74-6    |
| 40                   | MCPB                           | 94-81-5    |
| 41                   | Mecroprop                      | 93-65-2    |
| 42                   | Metamidophos                   | 10265-92-6 |
| 43                   | Methoxychlor                   | 72-43-5    |
| 44                   | Mirex                          | 2385-85-5  |
| 45                   | Monocrotophos                  | 6923-22-4  |
| 46                   | Parathion                      | 56-38-2    |
| 47                   | Parathion-methyl               | 298-00-0   |
| 48                   | Permethrin                     | 52645-53-1 |
| 49                   | Phosdrin/Mevinphos             | 7786-34-7  |
| 50                   | Profenophos                    | 41198-08-7 |
| 51                   | Propethamphos                  | 31218-83-4 |
| 52                   | Quinalphos                     | 13593-03-8 |
| 53                   | Toxaphen (Camphechlor)         | 8001-35-2  |
| 54                   | Trifluralin                    | 1582-09-8  |
| 55                   | 2,4,5-T                        | 93-76-5    |
| 56                   | 2,4-D                          | 94-75-7    |
| 57                   | Dicofol                        | 115-32-2   |
| 58                   | Chlordecone (Kepone)           | 143-50-0   |

| Appendix 4: Carcinogenic Dyes |                               | C.I. No.    | CAS No.                 |
|-------------------------------|-------------------------------|-------------|-------------------------|
| 1                             | C.I. Acid Red 26              | C.I. 16 150 | 3761-53-3               |
| 2                             | C.I. Acid Red 114             |             | 6459-94-5               |
| 3                             | C.I. Basic Blue 26            |             | 2580-56-5               |
| 4                             | C.I. Basic Green 4 (Chloride) |             | 569-64-2                |
| 5                             | C.I. Basic Green 4 (Free)     |             | 10309-95-2              |
| 6                             | C.I. Basic Green 4 (Oxalate)  |             | 2437-29-8<br>18015-76-4 |
| 7                             | C.I. Basic Red 9              | C.I. 42 500 | 569-61-9                |
| 8                             | C.I. Basic Violet 3           |             | 548-62-9                |
| 9                             | C.I. Basic Violet 14          | C.I. 42 510 | 632-99-5                |
| 10                            | C.I. Direct Black 28          | C.I. 35260  | 6745-67-1               |
| 11                            | C.I. Direct Black 38          | C.I. 30 235 | 1937-37-7               |
| 12                            | C.I. Direct Blue 6            | C.I. 22 610 | 2602-46-2               |
| 13                            | C.I. Direct Blue 15           |             | 2429-74-5               |
| 14                            | C.I. Direct Brown 95          |             | 16071-86-6              |
| 15                            | C.I. Direct Red 28            | C.I. 22 120 | 573-58-0                |
| 16                            | C.I. Disperse Blue 1          | C.I. 64 500 | 2475-45-8               |
| 17                            | C.I. Disperse Yellow 3        | C.I. 11 855 | 2832-40-8               |
| 18                            | C.I. Disperse Yellow 23 (*)   | C.I. 26 070 | 6250-23-3               |
| 19                            | C.I. Disperse Orange 11       | C.I. 60700  | 82-28-0                 |
| 20                            | C.I. Disperse Orange 149 (*)  |             | 85136-74-9              |
| 21                            | C.I. Pigment Red 104          | C.I. 77605  | 12656-85-8              |
| 22                            | C.I. Pigment Yellow 34        | C.I. 77603  | 1344-37-2               |
| 23                            | C.I. Solvent Yellow 1         | C.I. 11100  | 60-09-3                 |
| 24                            | C.I. Solvent Yellow 3         |             | 97-56-3                 |

(\*) Azo dye from which forbidden aryl amine (4-amino azobenzene) can be split off under reductive conditions

| Appendix 5: Chlorobenzenes and Chlorotoluenes |                                 | CAS No.                         |
|---|---------------------------------|---------------------------------|
| 1   | Chlorotoluenes (all isomers)    | 25168-05-2                      |
| 2   | Dichlorobenzenes (all isomers)  | 25321-22-6                      |
| 3   | Dichlorotoluenes (all isomers)  | 29797-40-8                      |
| 4   | Hexachlorobenzene               | 118-74-1                        |
| 5   | Pentachlorobenzene              | 608-93-5                        |
| 6   | Pentachlorotoluene              | 877-11-2                        |
| 7   | Tetrachlorobenzenes             | 634-66-2<br>634-90-2<br>95-94-3 |
| 8   | Tetrachlorotoluenes             | 2136-89-2<br>5216-25-1          |
| 9   | Trichlorobenzenes (all isomers) | 12002-48-1                      |
| 10  | Trichlorotoluenes               | 2077-46-5<br>98-07-7            |

| Appendix 6: Dioxin and Furans |  | CAS No.     | Group | Limit (µg/kg) |
|-------------------------------|--|-------------|-------|---------------|
| 1                             | 1,2,3,7,8-pentachlorodibenzo-p-dioxin      | 40321-76-4  | 1     | ≤ 1           |
| 2                             | 2,3,4,7,8-pentachlorodibenzo-furan         | 57117-31-4  |       |               |
| 3                             | 2,3,7,8-tetrachlorodibenzo-furan           | 51207-31-9  |       |               |
| 4                             | 2,3,7,8-tetrachlorodibenzo-p-dioxin        | 1746-01-6   |       |               |
| 5                             | 1,2,3,4,7,8-hexachlorodibenzo-p-dioxin     | 39227-28-6  | 2     | ≤ 5           |
| 6                             | 1,2,3,6,7,8-hexachlorodibenzo-p-dioxin     | 57653-85-7  |       |               |
| 7                             | 1,2,3,6,7,8-hexachlorodibenzofuran         | 57117-44-9  |       |               |
| 8                             | 1,2,3,7,8,9-hexachlorodibenzo-p-dioxin     | 19408-74-3  |       |               |
| 9                             | 1,2,3,7,8,9-hexachlorodibenzofuran         | 57117-41-6  |       |               |
| 10                            | 1,2,3,7,8-pentachlorodibenzofuran          | 57117-41-6  |       |               |
| 11                            | 2,3,4,6,7,8-hexachlorodibenzofuran         | 60851-34-5  |       |               |
| 12                            | 1,2,3,4,6,7,8-heptachlorodibenzo-p-dioxin  | 35822-46-9  | 3     | ≤ 100         |
| 13                            | 1,2,3,4,6,7,8-heptachlorodibenzofuran      | 67562-39-4  |       |               |
| 14                            | 1,2,3,4,6,7,8,9-octachlorodibenzo-p-dioxin | 3268-87-9   |       |               |
| 15                            | 1,2,3,4,6,7,8,9-octachlorodibenzofuran     | 39001-02-0  |       |               |
| 16                            | 1,2,3,4,7,8,9-heptachlorodibenzofuran      | 55673-89-7  |       |               |
| 17                            | 1,2,3,7,8-pentabromodibenzo-p-dioxin       | 109333-34-8 | 4     | ≤ 1           |
| 18                            | 2,3,4,7,8-pentabromodibenzofuran           | 131166-92-2 |       |               |
| 19                            | 2,3,7,8-tetrabromodibenzofuran             | 67733-57-7  |       |               |
| 20                            | 2,3,7,8-tetrabromodibenzo-p-dioxin         | 50585-41-6  |       |               |
| 21                            | 1,2,3,4,7,8-hexabromodibenzo-p-dioxin      | 110999-44-5 | 5     | ≤ 5           |
| 22                            | 1,2,3,6,7,8-hexabromodibenzo-p-dioxin      | 110999-45-6 |       |               |
| 23                            | 1,2,3,7,8-pentabromodibenzofuran           | 107555-93-1 |       |               |
| 24                            | 1,2,3,7,8,9-hexabromodibenzo-p-dioxin      | 110999-46-7 |       |               |

| Appendix 7: Flame Retardants |  | Short form   | CAS No.     |
|------------------------------|--|--------------|-------------|
| 1                            | Bis-(2,3-dibromopropyl ether) of tetrabromobisphenol | BDBPT        | 21850-44-2  |
| 2                            | Bis-(2,3-dibromopropyl)phosphate                     | BIS          | 5412-25-9   |
| 3                            | Decabromodiphenylether                               | DecaBDE      | 1163-19-5   |
| 4                            | Heptabromodiphenylether                              | HeptaBDE     | various     |
| 5                            | Hexabromocyclododecane                               | HBCDD        | 25637-99-4  |
| 6                            | Hexabromodiphenylether                               | HexaBDE      | 36483-60-0  |
| 7                            | Octabromodiphenylether                               | OctaBDE      | 32536-52-0  |
| 8                            | Pentabromodiphenylether                              | PBDE         | 32534-81-9  |
| 9                            | Nonabromodiphenylethers                              | NonaBDE      | various     |
| 10                           | Polybrominated Biphenyls (hexa-)                     | PBB          | 59536-65-1  |
| 11                           | Tetrabromobisphenol A                                | TBBPA        | 79-94-7     |
| 12                           | Tetrabromodiphenylether                              | TetraBDE     | 5436-43-1   |
| 13                           | Tri(aziridin-1-yl)phosphine oxide                    | TEPA         | 5455-55-1   |
| 14                           | Tris-(chloroisopropyl)phosphate                      | TCPP         | 13674-84-5  |
| 15                           | Tris-(1,3-dichloro-2-propyl)phosphate                | TDCPP        | 13674-87-8  |
| 16                           | Tris-(2-chloroethyl)phosphate                        | TCEP         | 115-96-8    |
| 17                           | Tris-(2,3-dibromopropyl)phosphate                    | TRIS - TDBPP | 126-72-7    |
| 18                           | 2,2-Bis(bromomethyl)-1,3-propanediol                 | BBMP         | 3296-90-0   |
| 19                           | 2-Ethylhexyl-2,3,4,5-tetrabromobenzoate              | TBB          | 183658-27-7 |
| 20                           | Bis(2-ethylhexyl)-2,3,4,5-tetrabromophtalate         | TBPH         | 26040-51-7  |
| 21                           | Dibromobiphenyls                                     | DiBB         | various     |
| 22                           | Tribromobiphenyls                                    | TriBB        | various     |
| 23                           | Tetrabromobiphenyls                                  | TetraBB      | various     |
| 24                           | Pentabromobiphenyls                                  | PentaBB      | various     |
| 25                           | Heptabromobiphenyls                                  | HeptaBB      | various     |
| 26                           | Octabromobiphenyls                                   | OctaBB       | various     |
| 27                           | Nonabromobiphenyls                                   | NonaBB       | various     |
| 28                           | Decabromobiphenyl                                    | DeacaBB      | 13654-09-6  |

| Appendix 8: Forbidden Aryl amines |  | Index No.    | CAS No.  |
|-----------------------------------|--|--------------|----------|
| 1                                 | Benzidine  | 612-042-00-2 | 92-87-5  |
| 2                                 | Biphenyl-4-ylamin; 4-aminobiphenyl; xenylamine                               | 612-072-00-6 | 92-67-1  |
| 3                                 | o-aminoazotoluene; 4-amino-2',3-dimethylazobenzene; 4-o-tolylazo-otoluidine  | 611-006-00-3 | 97-56-3  |
| 4                                 | o-anisidine; 2-methoxyaniline  | 612-035-00-4 | 90-04-0  |
| 5                                 | o-toluidine; 2-aminotoluene  | 612-091-00-X | 95-53-4  |
| 6                                 | 2,4-xylidine   |              | 95-68-1  |
| 7                                 | 2,4,5-trimethylaniline   |              | 137-17-7 |
| 8                                 | 2,6-xylidine   |              | 87-62-7  |
| 9                                 | 2-naphthylamine  | 612-022-00-3 | 91-59-8  |
| 10                                | 3,3'-dichlorobenzidine; 3,3'-dichlorobiphenyl-4; 4'-ylenediamine             | 612-068-00-4 | 91-94-1  |
| 11                                | 3,3'-dimethoxybenzidine; o-dianisidine                                       | 612-036-00-X | 119-90-4 |
| 12                                | 3,3-dimethylbenzidine; 4,4'-bi-o-toluidine                                   | 612-041-00-7 | 119-93-7 |
| 13                                | 4,4'-methylenedianiline; 4,4'-diaminodiphenylmethane                         | 612-051-00-1 | 101-77-9 |
| 14                                | 4,4'-methylenedi-o-toluidine   | 612-085-00-7 | 838-88-0 |
| 15                                | 4,4'-methylene-bis (2-chloro-aniline); 2,2'-dichloro-4,4'-methylenedianiline | 612-078-00-9 | 101-14-4 |
| 16                                | 4,4'-oxydianiline  |              | 101-80-4 |
| 17                                | 4,4'-thiodianiline   |              | 139-65-1 |
| 18                                | 4-amino azobenzene   | 611-008-00-4 | 60-09-3  |
| 19                                | 4-chloroaniline  |              | 106-47-8 |
| 20                                | 4-chloro-o-toluidine   |              | 95-69-2  |
| 21                                | 4-methoxy-m-phenylenediamine   |              | 615-05-4 |
| 22                                | 4-methyl-m-phenylenediamine  | 612-099-00-3 | 95-80-7  |
| 23                                | 5-nitro-o-toluidine  |              | 99-55-8  |
| 24                                | 6-methoxy-m-toluidine; p-cresidine   |              | 120-71-8 |

| <b>Appendix 9: Heavy Metals (extractable)<br/>EN 71-3</b> |              | <b>Short form</b> | <b>CAS No.</b> | <b>Unit</b> | <b>Category I</b><br>Solid materials which may leave residues on the hands | <b>Category II</b><br>Fluid or viscous materials which can be ingested or have skin contact | <b>Category III</b><br>Solid materials which can be ingested by biting, tooth scraping, sucking or licking |
|---|--------------|-------------------|----------------|-------------|--|---|--|
| 1   | Aluminium    | Al                | 7429-90-5      | mg/kg       | 5625   | 1406  | 70000  |
| 2   | Antimony     | Sb                | 7440-36-0      | mg/kg       | 45   | 11,3  | 560  |
| 3   | Arsenic      | As                | 7440-38-2      | mg/kg       | 3,8  | 0,9   | 47   |
| 4   | Barium       | Ba                | 7440-39-3      | mg/kg       | 1500   | 375   | 18750  |
| 5   | Boron        | B                 | 7440-42-8      | mg/kg       | 1200   | 300   | 15000  |
| 6   | Cadmium      | Cd                | 7440-43-9      | mg/kg       | 1,3  | 0,3   | 17   |
| 7   | Chromium III | Cr (III)          | 7440-47-3      | mg/kg       | 37,5   | 9,4   | 460  |
| 8   | Chromium VI  | Cr (VI)           | 18540-29-9     | mg/kg       | 0,02   | 0,005   | 0,053  |
| 9   | Cobalt       | Co                | 7440-48-4      | mg/kg       | 10,5   | 2,6   | 130  |
| 10  | Copper       | Cu                | 7440-50-8      | mg/kg       | 622,5  | 156   | 7700   |
| 11  | Lead         | Pb                | 7439-92-1      | mg/kg       | 2,0  | 0,5   | 23   |
| 12  | Manganese    | Mn                | 7439-96-5      | mg/kg       | 1200   | 300   | 15000  |
| 13  | Mercury      | Hg                | 7439-97-6      | mg/kg       | 7,5  | 1,9   | 94   |
| 14  | Nickel       | Ni                | 7440-02-0      | mg/kg       | 75   | 18,8  | 930  |
| 15  | Selenium     | Se                | 7782-49-2      | mg/kg       | 37,5   | 9,4   | 460  |
| 16  | Strontium    | Sr                | 7440-24-6      | mg/kg       | 4500   | 1125  | 56000  |
| 17  | Tin          | Sn                | 7440-31-5      | mg/kg       | 15000  | 3750  | 180000   |
| 18  | Organic tin  | Sn                | various        | mg/kg       | 0,9  | 0,2   | 12   |
| 19  | Zinc         | Zn                | 7440-66-6      | mg/kg       | 3750   | 938   | 46000  |



| Appendix 10: Mercury compounds |                                | CAS No.    |
|--------------------------------|--------------------------------|------------|
| 1                              | Phenylmercury acetate          | 62-38-4    |
| 2                              | Phenylmercury neodecanoate     | 26545-49-3 |
| 3                              | Phenylmercury octanoate        | 13864-38-5 |
| 4                              | Phenylmercury propionate       | 103-27-5   |
| 5                              | Phenylmercury 2-ethylhexanoate | 13302-00-6 |

| Appendix 11: Navy Blue |           | CAS No.     |
|------------------------|-----------|-------------|
| 1                      | Navy Blue | 118685-33-9 |

| Appendix 12: N-nitrosamines |                           | CAS No.  |
|-----------------------------|---------------------------|----------|
| 1                           | N-nitrosodiethylamine     | 55-18-5  |
| 2                           | N-nitrosodibutylamine     | 924-16-3 |
| 3                           | N-nitrosodimethylamine    | 62-75-9  |
| 4                           | N-nitrosodipropylamine    | 621-64-7 |
| 5                           | N-nitrosomorpholine       | 59-89-2  |
| 6                           | N-nitroso-N-ethylaniline  | 612-64-6 |
| 7                           | N-nitroso-N-methylaniline | 614-00-6 |
| 8                           | N-nitrosopiperidine       | 100-75-4 |
| 9                           | N-nitrosopyrrolidine      | 930-55-2 |

| Appendix 13: Nonylphenoethoxylates (NPEO) - Octylphenoethoxylates (OPEO) |  | CAS No.     |
|--|--|-------------|
| 1  | Nonylphenol Ethoxylates NPEO <sup>(1-2)</sup>          | Various     |
| 2  | Nonylphenol Ethoxylates NPEO <sup>(3-18)</sup>         | Various     |
| 3  | Octylphenol Ethoxylates OPEO <sup>(1-2)</sup>          | Various     |
| 4  | Octylphenol Ethoxylates OPEO <sup>(3-18)</sup>         | Various     |
| 5  | Unbekanntes Farbmittel 94 (SIN list)                   | 37205-87-1  |
| 6  | 4-Nonylphenyl-polyethylene glycol                      | 9016-45-9   |
| 7  | Polyoxyethylene nonylphenylether, branched (NPEs 3-18) | 68412-54-4  |
| 8  | Polyoxyethylene t-octylphenyl ether (OPEs 3-18)        | 9002-93-1   |
| 9  | 4-Nonylphenol, branched, ethoxylated                   | 127087-87-0 |
| 10   | 4-Nonylphenol, ethoxylated                             | 26027-38-3  |
| 11   | Octylphenoethoxylate, branched                         | 68987-90-6  |
| 12   | Octylphenoethoxylate, branched                         | 9036-19-5   |

| Appendix 14: Nonylphenols (NP) - Octylphenols (OP) |  | CAS No.    |
|--|--|------------|
| 1  | Nonylphenol  | 104-40-5   |
| 2  | Nonylphenol, branched                                  | 90481-04-2 |
| 3  | Nonylphenol NP   | Various    |
| 4  | Octylphenol, branched                                  | 27193-28-8 |
| 5  | Octylphenol OP   | Various    |
| 6  | 4-Nonylphenol (various, branched and linear)           | 25154-52-3 |
| 7  | 4-Nonylphenol, branched                                | 84852-15-3 |
| 8  | 4-Octylphenol (linear)                                 | 1806-26-4  |
| 9  | 4-(1,1,3,3-Tetramethylbutyl)-phenol; 4-(t-Octyl)phenol | 140-66-9   |

| Appendix 15: PFOA, its salts and PFOA-related substances | Substance   | Short form  | CAS No.                  |
|--|---|-------------|--------------------------|
| PFOA   | Perfluorooctanoic Acid  | PFOA        | 335-67-1                 |
| Salts (examples)   | Ammonium perfluorooctanoate   | APFO        | 3825-26-1                |
|  | Sodium perfluorooctanoate   |             | 335-95-5                 |
|  | Potassium perfluorooctanoate  |             | 2395-00-8                |
|  | Perfluorooctanoic acid, silver salt                                   |             | 335-93-3                 |
|  | Ethanaminium, N,N,N-triethyl-, salt with perfluorooctanoic acid (1:1) |             | 98241-25-9               |
| PFOA related substances (*)                              | 8:2 Fluorotelomer alcohol   | 8:2 FTOH    | 678-39-7                 |
|  | 8:2 Fluorotelomer acrylate  | 8:2 FTAC    | 27905-45-9               |
|  | 8:2 Fluorotelomer methacrylate  | 8:2 FTMAC   | 1996-88-9                |
|  | 8:2 Fluorotelomer phosphate monoester                                 | 8:2 monoPAP | 57678-03-2               |
|  | 8:2 Fluorotelomer phosphate diester                                   | 8:2 diPAP   | 678-41-1                 |
|  | Polyfluorinated silanes   | C8-PFSi     | various (i.e. 3102-79-2) |
|  | Perfluorooctyl phosphonic acid  | C8-PFPA     | 40143-78-0               |
|  | Polyfluorinated iodide  | 8:2 FTI     | 2043-53-0                |
|  | Perfluorooctyl iodide   | PFOI        | 507-63-1                 |
|  | Perfluorooctanoyl fluoride  |             | 335-66-0                 |
|  | Methyl perfluorooctanoate   |             | 376-27-2                 |
|  | Ethyl perfluorooctanoate  |             | 3108-24-5                |

(\*) The above list is a selected example of PFOA-related substances; the definition of PFOA-related substances, as reported in REACH (European Regulation 1907/2006, Annex XVII, entry No. 68), is:  
 “Any related substance (including its salts and polymers) having a linear or branched perfluoroheptyl group with the formula  $C_7F_{15}$  directly attached to another carbon atom, as one of the structural elements.  
 Any related substance (including its salts and polymers) having a linear or branched perfluorooctyl group with the formula  $C_8F_{17}$  as one of the structural elements.  
 The following substances are excluded from this designation:  
 -  $C_8F_{17}X$ , where  $X = F, Cl, Br$ ;  
 -  $C_8F_{17}C(=O)OH$ ,  $C_8F_{17}C(=O)O-X'$  or  $C_8F_{17}CF_2X'$  (where  $X'$  = any group, including salts).”



| Appendix 16: Phthalates |  | Short form | CAS No.   |
|-------------------------|--|------------|---|
| 1                       | BenzylButylphthalate   | BBP        | 85-68-7   |
| 2                       | Dibutylphthalate   | DBP        | 84-74-2   |
| 3                       | Diisobutyl phthalate   | DIBP       | 84-69-5   |
| 4                       | Di-iso-decylphthalate  | DIDP       | 26761-40-0<br>68515-49-1                          |
| 5                       | Di-iso-nonylphthalate  | DINP       | 28553-12-0<br>68515-48-0                          |
| 6                       | Di-pentylphthalate (n-, iso- or mixed)   | DPP        | 131-18-0<br>605-50-5<br>776297-69-9<br>84777-06-0 |
| 7                       | Di-(2-ethylhexyl)phthalate   | DEHP       | 117-81-7  |
| 8                       | Di-(2-methoxyethyl)phthalate   | DMEP       | 117-82-8  |
| 9                       | Di-n-octylphthalate  | DNOP       | 117-84-0  |
| 10                      | Di-n-hexylphthalate  | DHP-DnHP   | 84-75-3   |
| 11                      | 1,2-benzendicarboxylic acid, di C6-8 branched alkyl esters C7 rich             | DIHP       | 71888-89-6  |
| 12                      | 1,2-benzendicarboxylic acid, di C7-11 branched and linear alkyl esters C7 rich | DHNUP      | 68515-42-4  |

| Appendix 17: Polychlorobiphenyls |  | CAS No.    |
|----------------------------------|--|------------|
| 1                                | 2,4,4'-trichlorobiphenyl (PCB 28)              | 7012-37-5  |
| 2                                | 2,2',5,5'-tetrachlorobiphenyl (PCB 52)         | 35693-99-3 |
| 3                                | 3,3',4,4'-tetrachlorobiphenyl (PCB 77)         | 32598-13-3 |
| 4                                | 3,4,4',5-tetrachlorobiphenyl (PCB 81)          | 70362-50-4 |
| 5                                | 2,2',4,5,5'-pentachlorobiphenyl (PCB 101)      | 37680-73-2 |
| 6                                | 2,3,3',4,4'-pentachlorobiphenyl (PCB 105)      | 32598-14-4 |
| 7                                | 2,3,4,4',5-pentachlorobiphenyl (PCB 114)       | 74472-37-0 |
| 8                                | 2,3',4,4',5-pentachlorobiphenyl (PCB 118)      | 31508-00-6 |
| 9                                | 2',3,4,4',5-pentachlorobiphenyl (PCB 123)      | 65510-44-3 |
| 10                               | 3,3',4,4',5-pentachlorobiphenyl (PCB 126)      | 57465-28-8 |
| 11                               | 2,2',3,4,4',5'-hexachlorobiphenyl (PCB 138)    | 35065-28-2 |
| 12                               | 2,2',4,4',5,5'-hexachlorobiphenyl (PCB 153)    | 35065-27-1 |
| 13                               | 2,3,3',4,4',5-hexachlorobiphenyl (PCB 156)     | 38380-08-4 |
| 14                               | 2,3,3',4,4',5'-hexachlorobiphenyl (PCB 157)    | 69782-90-7 |
| 15                               | 2,3',4,4',5,5'-hexachlorobiphenyl (PCB 167)    | 52663-72-6 |
| 16                               | 3,3',4,4',5,5'-hexachlorobiphenyl (PCB 169)    | 32774-16-6 |
| 17                               | 2,2',3,4,4',5,5'-heptachlorobiphenyl (PCB 180) | 35065-29-3 |
| 18                               | 2,3,3',4,4',5,5'-heptachlorobiphenyl (PCB 189) | 39635-31-9 |

| Appendix 18: Polychloronaphthalenes |                                      | CAS No.    |
|-------------------------------------|--------------------------------------|------------|
| 1                                   | 2-chloronaphthalene                  | 91-58-7    |
| 2                                   | 1,2-dichloronaphthalene              | 20250-69-3 |
| 3                                   | 1,2,3-trichloronaphthalene           | 50402-52-3 |
| 4                                   | 1,2,3,4-tetrachloronaphthalene       | 20020-02-4 |
| 5                                   | 1,2,3,5,7-pentachloronaphthalene     | 53555-65-0 |
| 6                                   | 1,2,3,4,5,6-hexachloronaphthalene    | 58877-88-6 |
| 7                                   | 1,2,3,4,5,6,7-heptachloronaphthalene | 58863-14-2 |
| 8                                   | Octachloronaphthalene                | 2234-13-1  |

| Appendix 19: Polycyclic Aromatic Hydrocarbons (IPA - PAH) |                        | Short form | CAS No.  |
|---|------------------------|------------|----------|
| 1   | Acenaphthene           |            | 83-32-9  |
| 2   | Acenaphthylene         |            | 208-96-8 |
| 3   | Anthracene             |            | 120-12-7 |
| 4   | Benzo[a]anthracene     | BaA        | 56-55-3  |
| 5   | Benzo[a]pyrene         | BaP        | 50-32-8  |
| 6   | Benzo[b]fluoranthene   | BbFA       | 205-99-2 |
| 7   | Benzo[e]pyrene         | BeP        | 192-97-2 |
| 8   | Benzo[ghi]perylene     |            | 191-24-2 |
| 9   | Benzo[k]fluoranthene   | BkFA       | 207-08-9 |
| 10  | Benzo[j]fluoranthene   | BjFA       | 205-82-3 |
| 11  | Chrysene               | CHR        | 218-01-9 |
| 12  | Dibenzo[a,h]anthracene | DBAhA      | 53-70-3  |
| 13  | Fluoranthene           |            | 206-44-0 |
| 14  | Fluorene               |            | 86-73-7  |
| 15  | Indeno[1,2,3-cd]pyrene |            | 193-39-5 |
| 16  | Naphthalene            |            | 91-20-3  |
| 17  | Phenanthrene           |            | 85-01-8  |
| 18  | Pyrene                 |            | 129-00-0 |

| Appendix 20: Solvents           | Unit  | Substance                    | CAS No.    | Requirements    | Test method reference   |
|---------------------------------|-------|------------------------------|------------|-----------------|---|
| Chlorinated Solvents            | mg/kg | $\alpha$ -Chlorotoluene      | 100-44-7   | $\leq 1$        | DIN 54232   |
|                                 | mg/kg | Methylene chloride           | 75-09-2    | $\leq 50$ (sum) | GB 19340 "Extraction HS - SPME or Purge & Trap and Analysis by GC-MS" |
|                                 | mg/kg | Trichloroethylene            | 79-01-6    |                 |   |
|                                 | mg/kg | 1,2 Dichloroethane           | 107-06-2   |                 |   |
|                                 | mg/kg | 1,1,2 Trichloroethane        | 79-00-5    |                 |   |
|                                 | mg/kg | Carbon Tetrachloride         | 56-23-5    | $\leq 1000$     |   |
|                                 | mg/kg | Chloroform                   | 67-66-3    | $\leq 1000$     |   |
|                                 | mg/kg | Pentachloroethane            | 76-01-7    | $\leq 1000$     |   |
|                                 | mg/kg | Tetrachloroethylene          | 127-18-4   | $\leq 1000$     |   |
|                                 | mg/kg | 1,1-Dichloroethylene         | 75-35-4    | $\leq 1000$     |   |
|                                 | mg/kg | 1,1,1-Trichloroethane        | 71-55-6    | $\leq 1000$     |   |
|                                 | mg/kg | 1,1,1,2-Tetrachloroethane    | 630-20-6   | $\leq 1000$     |   |
|                                 | mg/kg | 1,1,2,2-Tetrachloroethane    | 79-34-5    | $\leq 1000$     |   |
| Volatile Organic Compound (VOC) | mg/kg | Benzene                      | 71-43-2    | $\leq 5$        |   |
|                                 | mg/kg | Methyl Alcohol               | 67-56-1    | $\leq 1000$     |   |
|                                 | mg/kg | N-hexane                     | 110-54-3   | $\leq 150$      |   |
|                                 | mg/kg | Toluylen diisocyanate (free) | 26471-62-5 | $\leq 10$       |   |
|                                 | mg/kg | Toluene                      | 108-88-3   | $\leq 200$      |   |
| Other Solvents                  | mg/kg | N-Methyl-2-pyrrolidone (NMP) | 872-50-4   | $\leq 1000$     |   |
|                                 | mg/kg | N,N-Dimethylacetamide (DMAc) | 127-19-5   | $\leq 1000$     |   |
|                                 | mg/kg | 2-Methoxyethanol             | 109-86-4   | $\leq 10$       | Solvent extraction and Analysis by GC-MS/LC-MS                        |
|                                 | mg/kg | Dimethylformamide (DMF)      | 68-12-2    | $\leq 200$      | ISO/TS 16189  |