### 2.4.16 Limit values for residues in additional fibre materials and accessories

Additional materials and *accessories* (in accordance with the criteria of chapter 2.4.9.) used for *GOTS Goods* need to comply with the following limit values for residues:

Further information on the test methods and criteria is available in the GOTS manual.

The supplier or manufacturer of the product or of the accessory / additional material can complete this form.

|  |  |
| --- | --- |
| **Accessory or additional materia**l       | **Supplier**       |
| You must do a risk assessment of your accessories and additional materials for the limit values below. If your risk assessment shows there is a risk of your accessories and additional materials not meeting the limit values, you must carry out residue testing for those parameters. |
| DeclarationBased on information provided to my company, I can confirm that all the information given in this form and supporting documentation, is complete and accurate. |
| Name       | Date       |
| Position      | Company       |

|  |  |  |  |
| --- | --- | --- | --- |
| **Criteria** | **Limit Values** | **Test Method** | **Criteria met? How established** |
|   | **For use in t*extiles for babies and textile personal care products*** | **For use in all other *GOTS Goods*** |  |  |
| **Arylamines** with carcinogenic properties (amine-releasing azo dyes MAK III, category 1,2,3) | < 20 mg/kg | < 20 mg/kg | EN 14362-1 and -3; (HPLC/GCMS) |  |
| **Analine** (MAK III category 4) (free) | < 20 mg/kg | < 50 mg/kg | EN 14362-1 and -3; (HPLC/GCMS), without reductive cleavage |  |
| **Disperse** dyes (classified as allergenic or carcinogenic) | < 30 mg/kg | < 30 mg/kg | DIN 54231; (LC/MS) |  |
| **Formaldehyde** | < 16 mg/kg | < 75 mg/kg (Skin Contact) | Japanese Law 112; or based on ISO 14184-1 |  |
|   |   | <150 mg/kg (no Skin Contact) |   |  |
| **Glyoxal** and other short-chain aldehydes (mono- and dialdehydes up to C6) | <20 mg/kg | <75 mg/kg (Skin Contact) | Extraction (acc. to ISO 14184-1), ISO 17226-1 (HPLC) |  |
|   |   | <300 mg/kg (no Skin Contact) |   |  |
| **pH value** | 4.0-7.5 | 4.0-7.5 | ISO 3071 |  |
| **Chlorophenols**  |   |   | LFGB 82-02-08; (GC/MS) |  |
| PCP | <0.05 mg/kg | <0.5 mg/kg |  |
| TeCP | <0.05 mg/kg | <0.5 mg/kg |  |
| TrCP | <0.2 mg/kg | <2.0 mg/kg |  |
| DCP | <0.5 mg/kg | <3.0 mg/kg |  |
| MCP | <0.5 mg/kg | <3.0 mg/kg |  |
| **Pesticides, sum parameter** |   |   | § 64 LFGB L 00.00-34 (GC/MS); § 64 LFGB L 00.00-114 (LC/MS/MS)   |  |
| All natural fibres (except shorn wool) | <0.5 mg/kg | <1 mg/kg |  |
| Shorn wool | <1.0 mg/kg | <1 mg/kg |  |
| **Extractable Heavy metals** |   |   | Elution DIN EN ISO 105-E04, ISO 17294-2 (ICP/MS)         |  |
| Arsenic (As) | <0.2 mg/kg | <1.0 mg/kg |  |
| Cadmium (Cd) | <0.1 mg/kg | <0.1 mg/kg |  |
| Chromium (Cr) | <1.0 mg/kg | <2.0 mg/kg |  |
| Cobalt (Co) | <1.0 mg/kg | <4.0 mg/kg |  |
| Copper (Cu) | <25.0 mg/kg 1 | <50.0 mg/kg 1 |  |
| Lead (Pb) | <0.2 mg/kg | <1.0 mg/kg (not for Glass) |  |
| Nickel (Ni) | <1.0 mg/kg | <4.0 mg/kg |  |
| Mercury (Hg) | <0.02 mg/kg | <0.02 mg/kg |  |
| Chromium VI (Cr-VI) | <0.5 mg/kg | <0.5 mg/kg | Elution DIN EN ISO 105-E04, ISO 11083 |  |
|   |   |   |   |  |
| **Total Heavy metals (in digested sample)** |   |   |  |  |
| Cadmium (Cd) | <40 mg/kg | <40 mg/kg | EPA 3050 B, ICP/MS |  |
| Lead (Pb) | <90 mg/kg | <90 mg/kg |  |
| **Nickel release** | < 0.28 µg/cm2/week | < 0.28 µg/cm2/week | EN 12472, EN 1811 |  |
| **Organotin compounds** |   |   |  |  |
|  TBT | <0.5 mg/kg | <1.0 mg/kg |  Extraction in solvent, ISO 17353 (GC/MS) or ISO/TS 16179      |  |
| TphT | <0.5 mg/kg | <1.0 mg/kg |  |
| DBT | <1.0 mg/kg | <2.0 mg/kg |  |
| DOT  | <1.0 mg/kg | <2.0 mg/kg |  |
| MBT | <1.0 mg/kg | <2.0 mg/kg |  |
| DMT, DPT, MoT, MMT, TeBT, TCyHT, TMT, TOT, TPT, DphT, TeET | <1.0 mg/kg | <2.0 mg/kg |  |
|   |   |   |   |  |
| **Phthalates** (DINP, DMEP, DNOP, DEHP, DIDP, BBP, DBP, DIBP, DEP, DIHP, DHNUP, DCHIP, DHxP, DIHxP, DPrP, DHP, DNP, DPP, DMP)) |   |   | ISO 14489  |  |
|  sum parameter | <0.05% | <0.05% |  |
| **Polycyclic Aromatic Hydrocarbons (PAH):**  |   |   | ISO 18287 or ZEK 1.2-08; (GC/MS)                   |  |
| **sum parameter**  | **<5.0 mg/kg** | **<10.0 mg/kg** |  |
| 1-Methylpyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Acenaphthene | <0.5 mg/kg | <1.0 mg/kg |  |
| Acenphthylene | <0.5 mg/kg | <1.0 mg/kg |  |
| Anthracene | <0.5 mg/kg | <1.0 mg/kg |  |
| Chrysene | <0.5 mg/kg | <1.0 mg/kg |  |
| Benzo[a]anthracen | <0.5 mg/kg | <1.0 mg/kg |  |
| Ben-zo[b]fluoranthene | <0.5 mg/kg | <1.0 mg/kg |  |
| Benzo(j)fluoranthene | <0.5 mg/kg | <1.0 mg/kg |  |
| Ben-zo[k]fluoranthene | <0.5 mg/kg | <1.0 mg/kg |  |
| Cyclopenta [c,d] pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Dibenzo [a,h] pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Dibenzo [a,i] pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Dibenzo [a,l] pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Dibenzo [a,h] anthracene | <0.5 mg/kg | <1.0 mg/kg |  |
| Benzo[a]pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Ben-zo(e)pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Dibenzo[a,h]anthracene | <0.5 mg/kg | <1.0 mg/kg |  |
| Naphthalene | <0.5 mg/kg | <1.0 mg/kg |  |
| Acenaphthylene | <0.5 mg/kg | <1.0 mg/kg |  |
| Fluorene | <0.5 mg/kg | <1.0 mg/kg |  |
| Phenanthrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Anthracene | <0.5 mg/kg | <1.0 mg/kg |  |
| Fluoranthene | <0.5 mg/kg | <1.0 mg/kg |  |
| Pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Indeno[1,2,3-cd]pyrene | <0.5 mg/kg | <1.0 mg/kg |  |
| Ben-zo[g,h,i]perylene | <0.5 mg/kg | <1.0 mg/kg |  |
| **Chlorinated Paraffins**Short Chain Chlorinated Paraffins (C10-13) & Medium Chain Chlorinated Paraffins (C14-17) |
|  |
| Sum parameter | <50 mg/kg | <50 mg/kg |  |  |
| **Cyclic Siloxanes** (D4, D5, D6) | <1000 mg/kg | <1000 mg/kg |  |  |
| **Other Chemical Residues** |
| Azodicarboxamide/Azodicarbonamide/Diazene-1,2-dicarboxamide (ADCA) | <1000 mg/kg | <1000 mg/kg |  |  |
| **Solvent Residues** |
| NMP, DMAc, DMF | 0.05% by weight | 0.05% by weight |  |  |
| Formamide | 0.02% by weight | 0.02% by weight |  |  |
| Chlorinated Benzens & Toluenes | 1.0 mg/kg | 1.0 mg/kg |  |  |
| Nonylphenol Ethoylates | 100 mg/kg | 100 mg/kg |  |  |

1) Criterion not applicable to non-biotic material (such as metals)

|  |  |  |  |
| --- | --- | --- | --- |
| **Further parameters relevant for specific materials used in accessories** | **Criteria** | **Test method** | **Criteria Met? How established?**  |
| **Polyester fibres:****Antimony (Sb)** | < 30 mg/kg | Elution DIN EN ISO 105-E04,ISO 17294-2 (ICP/MS) |  |
| **Natural latex foam:****Butadiene****Chlorophenols (incl. salts and esters)****Carbon disulphide** **Nitrosamines** | < 1.0 mg/kg< 1.0 mg/kg< 0.02 mg/m3< 0.001 mg/m3 | Gas chromatography, flame-ionisation detectorLFGB 82-02-08 (GC/MS)Chamber test, DIN ISO 16000-6Chamber test; ZH 1/120-23 or BGI 505-23 for air sampling and analysis |  |