# TEST REPORT

No. **8621.SHJ1.2507.02042R2** Date: **01.27, 2026** Page: **1 / 36**

| | | |
|---|---|---|
| Applicant | : | JINHUA SONIN HARDWARE PRODUCTS CO., LTD |
| Address | : | 1FOLLORS, BUILDING ONE, INDUSTRIAL AREAS, CAOZHAI TOWN, JINDONG DISTRICT, JINHUA CITY, ZHEJIANG PROVINCE, CHINA |

Below information submitted by the applicant:

| | | |
|---|---|---|
| Product Name | : | water bottle |
| Model | : | L1480AE22, 26402 02 |
| Model may cover | : | 15432,19415 09,20428,19416 01,19416 02,19416 03,19416 04, 19416 06,19416 08,19416 09,19416 10,19416 12,19416 44, L9663AH01,19425 01,19425 03,19425 09,19425 10,20441 01, 20441 01S,20441 02,20441 03,20441 09,20441 10,20450,21412.44, 21412.27,21412.06,21412 07,21413.24,L43359AA44,21411 01, 21411 02,21411 03,21411 09,21411 10,21411 04,21411.55,21411 01S, 23419 01,23419 02,22421 01,22421 01S,22421 02,22421 03,22421 04, 22421 10,22421 64,22421 09,L1480AE22,L1480AE04,L1480AE12, L1480AE08,L9663AE15,L9663AF22,L41964AL05,L41964AM05, 26402 64,26402 05,26402 22,26402 02,L9196AA24,19416 05, L26646AA22, 26437 01,26437 02,26437 05,26437 37 |
| Reference info. | : | / |
| Manufacturer info. | : | / |
| Supplier info. | : | / |
| Buyer info. | : | / |
| Country of Destination | : | / |
| Country of Origin | : | China |

| | | |
|---|---|---|
| Sample Received | : | 07.07, 2025 |
| Test Period | : | 07.07, 2025 - 07.11, 2025 |
| Test Requirement | : | Refer to next pages |
| Test Method | : | Refer to next pages |
| Test Result | : | Refer to next pages |
| Test Conclusion | : | Refer to next pages |

**Revised report, instead of 8621.SHJ1.2507.02042R1, 2025-09-17**

TUV Thuringen (Shanghai) Co., Ltd. TESTING

Signed for and on behalf of
Jordan Wang, General Manager
BU Chemical Compliance
TUV THURINGEN (SHANGHAI) CO., LTD.
Location: Shanghai



**TUV THURINGEN (SHANGHAI) CO., LTD.**
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## TEST RESULTS

As requested by the client, test items as below:

| | Test Items | Verdict |
|---|---|---|
| 1. | As requested by the client, according to General Requirement (Article 3) in EU Regulation No. 1935/2004, Commission Regulation (EU) No 10/2011 and its subsequent amendment Regulation EU No.321/2011, No.1282/2011, No.1183/2012, No.202/2014, No.865/2014, No. 2015/174, No.2016/1416, No.2017/752, No.2018/79, No.2019/37, No.2020/1245, No.2023/1442, No.2023/1627, No.2024/3190 on plastic materials and articles intended to come into contact with foodstuffs, the decree of the Minister of Health 21 March 1973, containing: "Hygienic regulation of packaging, containers, utensils intended to come into contact with the substances food or substances for personal use " considering 30 April 1962, n. 283, concerning the hygienic discipline of the production and sale of the food and beverage substances, D.Lgs. No. 108 del 25 January 1992, Decree No.140 del 11 November 2013 updating Decree No. 258 del 21 December 2010 till consolidated vision to 2020.09 (D.M. 21 marzo 1973 MOCA IT Consolidato Ed3.0), and Technical Guide on Metals and EDQM 2nd edition 2024, metals and alloys used in food contact materials and articles, test items as below:<br>- sensorial examination odor and taste for whole product<br>- Leachable heavy metal and composition analysis for metal materials<br>- Overall migration; specific migration of primary aromatic amine; soluble heavy metal; Volatile organic substances; Residual catalyst; Remaining peroxides and organotin compounds; specific migration of organotin (as Tin) for silicone materials<br>- Overall migration test; specific migration of primary aromatic amines; soluble heavy metals; total lead and cadmium content; peroxide value; specific migration of bisphenol A (BPA); specific migration of softeners and phthalates; catalyst residue content; color release for PP plastics<br>- Bisphenol A content for all polymer materials<br>- PAHs content in acc. to AfPS GS 2019:01 | PASS |
| 2. | According to European Commission Regulation 1907/2006 (concerning the Registration, Evaluation, Authorization and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC), to test the SVHC content which have been listed in ECHA's SVHC candidate list till June 25, 2025 http://echa.europa.eu/web/guest/candidate-list-table<br>- REACH 250 SVHC content in candidate list till 2025.06.25, less than 0.1% | PASS |

**TESTS CARRIED BY:**

**LAB ID: TTSLCM005; ADD.: 2/F., BUILDING D-1, NO.128, SHENFU ROAD, MINHANG DISTRICT, SHANGHAI, CHINA**

## SAMPLE DESCRIPTION

| | | | |
|---|---|---|---|
| Sample description | : | 1#. | Silvery stainless steel container |
| | | 2#. | Semi-transparent silicone |
| | | 3#. | Silvery metal lid |
| | | 4#. | Black Plastic Stopper |
| | | 5#. | Silvery stainless steel container |
| | | 6#. | Whole product (including 1#, 2#, 3#, 4#, 5#) |

## TEST RESULTS

**1. Food contact material safety requirements**

**1.1. Sensorial examination odor and taste test**

**Test Method:** sensory test with reference to DIN 10955:2024

| Test Items | Test Results | Permissible Limit |
|---|---|---|
| | Whole product | |
| Test Media | Distilled water | --- |

| Test Items | Test Results | Permissible Limit |
|---|---|---|
| | Whole product | |
| Temperature, ℃ | 100.0 | --- |
| Contact Time, hour | 4.0 | --- |
| Sensorial examination odor | 0 | 2.5, max |
| Sensorial examination taste | 0 | 2.5, max |
| Comment(s) | PASS | --- |

Scale evaluation:

0: No perceptible odor
1: Odor just perceptible (still difficult to define)
2: Moderate odor
3: Moderately strong odor
4: Strong odor

**1.2. pecial requirements for Metals**

**1.2.1. Specific release heavy metals – CM/Res(2020)9, EDQM 2nd edition 2024, metals and alloys used in food contact materials and articles**

**Test method:** Sample prepared with reference to Technical Guide on Metals and Alloys used in food contact materials and articles of CM/Res(2020)9 and EDQM 2nd edition 2024, metals and alloys used in food contact materials and articles by Inductively Coupled Plasma Optical Emission Spectrometer (ICP-OES) and Inductively Coupled Plasma Optical Emission Spectrometer with Mass Detector (ICP-MS) analysis.

**Test Condition:** 100.0℃/4.0hours with 0.5% citric acid (5g/L)

| | | | | | | Unit | mg/kg |
|---|---|---|---|---|---|---|---|
| **Extractable Elements** | **MDL** | **1st Result** | **2nd Result** | **1st + 2nd Result** | **7*Limit** | **3rd Result** | **Limit** |
| | | **1#+3#+5#** | **1#+3#+5#** | **1#+3#+5#** | | **1#+3#+5#** | |
| Aluminum, Al | 0.01 | n.d. | n.d. | n.d. | 35 | n.d. | 5 |
| Antimony, Sb | 0.01 | n.d. | n.d. | n.d. | 0.28 | n.d. | 0.04 |
| Chromium, Cr | 0.01 | n.d. | n.d. | n.d. | 7 | n.d. | 1 |
| Cobalt, Co | 0.01 | n.d. | n.d. | n.d. | 0.14 | n.d. | 0.02 |
| Copper, Cu | 0.01 | n.d. | n.d. | n.d. | 28 | n.d. | 4 |
| Iron, Fe | 0.01 | n.d. | n.d. | n.d. | 280 | n.d. | 40 |
| Magnesium, Mg | 0.01 | n.d. | n.d. | n.d. | --- | n.d. | --- |
| Manganese, Mn | 0.01 | n.d. | n.d. | n.d. | 3.85 | n.d. | 0.55 |
| Molybdenum, Mo | 0.01 | n.d. | n.d. | n.d. | 0.84 | n.d. | 0.12 |
| Nickel, Ni | 0.01 | n.d. | n.d. | n.d. | 0.98 | n.d. | 0.14 |
| Silver, Ag | 0.01 | n.d. | n.d. | n.d. | 0.56 | n.d. | 0.08 |
| Tin, Sn | 0.01 | n.d. | n.d. | n.d. | 700 | n.d. | 100 |
| Titanium, Ti | 0.01 | n.d. | n.d. | n.d. | --- | n.d. | --- |
| Vanadium, V | 0.01 | n.d. | n.d. | n.d. | 0.07 | n.d. | 0.01 |
| Zinc, Zn | 0.01 | n.d. | n.d. | n.d. | 35 | n.d. | 5 |
| Zirconium, Zr | 0.01 | n.d. | n.d. | n.d. | 14 | n.d. | 2 |
| Arsenic, As | 0.001 | n.d. | n.d. | n.d. | 0.014 | n.d. | 0.002 |

| Extractable Elements | MDL | 1st Result | 2nd Result | 1st + 2nd Result | 7*Limit | Unit | mg/kg |
|---|---|---|---|---|---|---|---|
| | | 1#+3#+5# | 1#+3#+5# | 1#+3#+5# | | 3rd Result 1#+3#+5# | Limit |
| Barium, Ba | 0.01 | n.d. | n.d. | n.d. | 8.4 | n.d. | 1.2 |
| Beryllium, Be | 0.01 | n.d. | n.d. | n.d. | 0.07 | n.d. | 0.01 |
| Cadmium, Cd | 0.001 | n.d. | n.d. | n.d. | 0.035 | n.d. | 0.005 |
| Lead, Pb | 0.001 | n.d. | n.d. | n.d. | 0.07 | n.d. | 0.010 |
| Lithium, Li | 0.01 | n.d. | n.d. | n.d. | 0.336 | n.d. | 0.048 |
| Mercury, Hg | 0.001 | n.d. | n.d. | n.d. | 0.021 | n.d. | 0.003 |
| Thallium, Tl | 0.0001 | n.d. | n.d. | n.d. | 0.007 | n.d. | 0.001 |

Note: The submitted sample/component is a repeated use article. The migration test was carried out three times on the same article. The sum of the results of the first and second tests should not exceed seven times the limit (Result 1st test + Result 2nd test <7* limit) and the Result 3rd should not exceed the limit.

### 1.2.2. Metal Composition

**Test method:** acid digestion, followed by analyzed using Inductively Coupled Argon Plasma Spectrometry
C and S elements, directed tested via C/S detector

| Test Parameter | Units | MDL | Test Results | Permissible Limit | |
|---|---|---|---|---|---|
| | | | 1#+3#+5# | 1.4319 | 1.4301 |
| C content | % | 0.005 | 0.023 | ≤0.15 | ≤0.07 |
| Si content | % | 0.005 | 0.59 | ≤1.00 | ≤1.00 |
| Mn content | % | 0.05 | 0.58 | ≤2.00 | ≤2.00 |
| P content | % | 0.005 | 0.015 | ≤0.065 | ≤0.035 |
| S content | % | 0.005 | 0.014 | ≤0.030 | ≤0.030 |
| Cr content | % | 0.05 | 18.31 | 16.0~18.0 | 17.0~19.0 |
| Ni content | % | 0.05 | 8.22 | 6.0~8.0 | 8.0~10.5 |

## 1.3. Special requirements for polymer materials

### 1.3.1. Overall migration test

**Test method:**

EN 1186-1:2002 guide to the selection of conditions and test methods for overall migration
EN 1186-3:2022 Materials and articles in contact with foodstuffs - Plastics - Part 3: Test methods for overall migration in evaporable simulants
Ratio of surface area/volume = 6dm²/1L

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| Test Media | | | 3% acetic acid | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | --- |
| 1st, Overall migration test | mg/dm² | 3.0 | 6.9 | 3.3 | --- |
| 2nd, Overall migration test | mg/dm² | 3.0 | 4.6 | n.d. | --- |

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| 3rd, Overall migration test | mg/dm² | 3.0 | 3.5 | n.d. | 10, max |
| Comment(s) | --- | --- | PASS | PASS | --- |

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| Test Media | | | 10% Ethanol | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | --- |
| 1st, Overall migration test | mg/dm² | 3.0 | 6.9 | 3.3 | --- |
| 2nd, Overall migration test | mg/dm² | 3.0 | 4.6 | n.d. | --- |
| 3rd, Overall migration test | mg/dm² | 3.0 | 3.5 | n.d. | 10, max |
| Comment(s) | --- | --- | PASS | PASS | --- |

**1.3.2. pecific migration of heavy metal**

**Test Method:** with reference to EN 13130-1:2004, followed by analysis using ICP-OES, ICP-MS, IC, UV-Vis

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 2#, 1st | 2#, 2nd | 2#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Soluble Aluminum, Al | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤1.0 |
| Soluble Ammonium, $NH_4$ | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Antimony, Sb | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.04 |
| Soluble Arsenic, As | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Barium, Ba | mg/kg | 0.25 | n.d. | n.d. | n.d. | ≤1.0 |
| Soluble Cadmium, Cd | mg/kg | 0.002 | n.d. | n.d. | n.d. | ND (LOD 0.002) |
| Soluble Calcium, Ca | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Chromium, Cr | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Cobalt, Co | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.05 |
| Soluble Copper, Cu | mg/kg | 0.25 | n.d. | n.d. | n.d. | ≤5.0 |
| Soluble Iron, Fe | mg/kg | 5.0 | n.d. | n.d. | n.d. | ≤48 |
| Soluble Lead, Pb | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Lithium, Li | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤0.6 |
| Soluble Magnesium, Mg | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Manganese, Mn | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤0.6 |
| Soluble Mercury, Hg | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 2#, 1st | 2#, 2nd | 2#, 3rd | |
| Soluble Nickel, Ni | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.02 |
| Soluble Potassium, K | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Sodium, Na | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Zinc, Zn | mg/kg | 0.5 | n.d. | n.d. | n.d. | ≤5.0 |
| Soluble Europium, Eu | mg/kg | 0.025 | n.d. | n.d. | n.d. | Sum of Eu, Gd, La, Tb, ≤0.05 |
| Soluble Gadolinium, Gd | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Soluble Lanthanum, La | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Soluble Terbium, Tb | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Soluble Aluminum, Al | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤1.0 |
| Soluble Ammonium, $NH_4$ | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Antimony, Sb | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.04 |
| Soluble Arsenic, As | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Barium, Ba | mg/kg | 0.25 | n.d. | n.d. | n.d. | ≤1.0 |
| Soluble Cadmium, Cd | mg/kg | 0.002 | n.d. | n.d. | n.d. | ND (LOD 0.002) |
| Soluble Calcium, Ca | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Chromium, Cr | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Cobalt, Co | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.05 |
| Soluble Copper, Cu | mg/kg | 0.25 | n.d. | n.d. | n.d. | ≤5.0 |
| Soluble Iron, Fe | mg/kg | 5.0 | n.d. | n.d. | n.d. | ≤48 |
| Soluble Lead, Pb | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Lithium, Li | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤0.6 |
| Soluble Magnesium, Mg | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Manganese, Mn | mg/kg | 0.1 | n.d. | n.d. | n.d. | ≤0.6 |
| Soluble Mercury, Hg | mg/kg | 0.01 | n.d. | n.d. | n.d. | ND |
| Soluble Nickel, Ni | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.02 |
| Soluble Potassium, K | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Sodium, Na | mg/kg | 0.1 | n.d. | n.d. | n.d. | --- |
| Soluble Zinc, Zn | mg/kg | 0.5 | n.d. | n.d. | n.d. | ≤5.0 |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Soluble Europium, Eu | mg/kg | 0.025 | n.d. | n.d. | n.d. | Sum of Eu, Gd, La, Tb, ≤0.05 |
| Soluble Gadolinium, Gd | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Soluble Lanthanum, La | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Soluble Terbium, Tb | mg/kg | 0.025 | n.d. | n.d. | n.d. | |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

**1.3.3. Specific migration test of primary aromatic amine**

**Test method:** Sample preparation with reference to EN 13130-1:2004, followed by analysis with reference to DIN 55610:1986, via LCMSMS

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 2#, 1st | 2#, 2nd | 2#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Specific migration of 4-aminobiphenyl / 4-biphenylamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of o-anisidine / 2-methoxyaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of Benzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Chloro-aniline / p-chloroaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Chloro-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-Diaminodiphenylether / 4,4'-oxydianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-Methylenedianiline / 4,4'-diamino-diphenylmethane | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4-Methylenedi-o-toluidine /3,3'-dimethyl-4,4'-diaminodiphenylmethane | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2-Methoxy-5-methylaniline / p-cresidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Methoxy-mphenylenediamine/ 2,4-diaminoanisole | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of o-Toluidine / 2-aminotoluene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4-Toluenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3-Dimethylbenzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4,5-Trimethylaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 2#, 1st | 2#, 2nd | 2#, 3rd | |
| Specific migration of m-Phenylenediamine / 1,3-Phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2-naphthylamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of o-aminoazotoluene/ 4-amino-2',3-dimethylazobenzene/ 4-otolylazo-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 5-nitro-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3'-dichlorobenzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3'-dimethoxybenzidine / odianisidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-methylene-bis-(2-chloroaniline) / 2,2'-dichloro-4,4'-methylene-dianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-thiodianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-amino azobenzene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of Aniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4-dimethylaniline/2,4-xylidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,6-dimethylaniline/ 2,6-xylidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of m-phenylenediamine/ 1,3-phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of p-phenylenediamine/ 1,4-phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,6-toluenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 1,5-diaminenaphthalene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of primary aromatic amine | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.01 |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Specific migration of 4-aminobiphenyl / 4-biphenylamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Specific migration of o-anisidine / 2-methoxyaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of Benzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Chloro-aniline / p-chloroaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Chloro-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-Diaminodiphenylether / 4,4'-oxydianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-Methylenedianiline / 4,4'-diamino-diphenylmethane | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4-Methylenedi-o-toluidine /3,3'-dimethyl-4,4'-diaminodiphenylmethane | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2-Methoxy-5-methylaniline / p-cresidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4-Methoxy-mphenylenediamine/ 2,4-diaminoanisole | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of o-Toluidine / 2-aminotoluene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4-Toluenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3-Dimethylbenzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4,5-Trimethylaniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of m-Phenylenediamine / 1,3-Phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2-naphthylamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of o-aminoazotoluene/ 4-amino-2',3-dimethylazobenzene/ 4-otolylazo-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 5-nitro-o-toluidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3'-dichlorobenzidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 3,3'-dimethoxybenzidine / odianisidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-methylene-bis-(2-chloroaniline) / 2,2'-dichloro-4,4'-methylene-dianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 4,4'-thiodianiline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Specific migration of 4-amino azobenzene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of Aniline | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,4-dimethylaniline/2,4-xylidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,6-dimethylaniline/ 2,6-xylidine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of m-phenylenediamine/ 1,3-phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of p-phenylenediamine/ 1,4-phenylenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 2,6-toluenediamine | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of 1,5-diaminenaphthalene | mg/kg | 0.002 | n.d. | n.d. | n.d. | ≤0.002 |
| Specific migration of primary aromatic amine | mg/kg | 0.01 | n.d. | n.d. | n.d. | ≤0.01 |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

### 1.3.4. Specific Migration of Bisphenol A

**Test Method:** sample preparation with reference to EN 13130-1:2004, analysis by GC/MS

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Specific migration of Bisphenol A | mg/kg | 0.05 | n.d. | n.d. | n.d. | <0.05 |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

### 1.3.5. Specific migration of softeners and phthalates

**Test Method:** Sample preparation with reference to EN 13130-1:2004, followed by analysis with GC/MS

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Test Media | | | 3% acetic acid | | | --- |
| Temperature, ℃ | | | 100.0 | 100.0 | 100.0 | --- |
| Contact Time, hour | | | 4.0 | 4.0 | 4.0 | --- |
| Specific migration of phthalic acid, bis (2-ethylhexyl) ester ('DEHP') | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤0.6 |
| Specific migration of phthalic acid, dibutyl ester ('DBP') | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤0.12 |

| Test Parameter | Units | MDL | Test Results | | | Permissible Limit |
|---|---|---|---|---|---|---|
| | | | 4#, 1st | 4#, 2nd | 4#, 3rd | |
| Specific migration of phthalic acid, benzyl butyl ester ('BBP') | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤6 |
| Specific migration of phthalic acid, diesters with primary, saturated $C_8$-$C_{10}$ branched alcohols, more than 60% $C_9$ ('DINP') | mg/kg | 0.05 | n.d. | n.d. | n.d. | Not detected |
| Specific migration of DIDP | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤9 |
| Specific migration of DEHT | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤60 |
| Specific migration of DEHA | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤18 |
| Specific migration of other phthalates and softeners | mg/kg | 0.05 | n.d. | n.d. | n.d. | ≤0.05 |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |
| Comment(s) | --- | --- | PASS | PASS | PASS | --- |

### 1.3.6. Total Lead and Cadmium Content

**Test Method:** with reference to EN 1122, analysis was performed by ICP-OES/ AAS.

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 4# | |
| Total Lead Content | mg/kg | 2 | n.d. | 40, max |
| Total Cadmium Content | mg/kg | 2 | n.d. | 20, max |

### 1.3.7. Peroxide Value

**Test Method:** with reference to European Pharacopeia 5.0, Ph.Eur. Method 2.5.5

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 4# | |
| Peroxide value | --- | --- | Neg. | Negative |

### 1.3.8. Special requirements for Silicone materials

#### 1.3.8.1. Organotin content (Monobutyltin, MBT; Dibutyltin, DBT; Tributyltin, TBT; Tetrabutyltin, TTBT; Monooctyltin, MOT; Dioctyltin, DOT; Tricyclohexyltin, TcyT)

**Test Method:** Solvent extraction followed by analysis using Gas Chromatography Spectrometer.

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Monobutyltin, MBT | mg/kg | 0.10 | n.d. | 1.0, max |
| Dibutyltin, DBT | mg/kg | 0.01 | n.d. | 0.05, max |
| Tributyltin, TBT | mg/kg | 0.01 | n.d. | 0.05, max |
| Tetrabutyltin, TeBT | mg/kg | 0.01 | n.d. | Sum of MBT, DBT, TBT, TTBT, MOT, DOT, TcyT: 2.5, max |
| Monooctyltin, MOT | mg/kg | 0.01 | n.d. | |
| Dioctyltin, DOT | mg/kg | 0.01 | n.d. | |
| Tricyclohexyltin, TcyT | mg/kg | 0.01 | n.d. | |

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Methyltin, MeT | mg/kg | 0.01 | n.d. | |
| Tripropytin, TPT | mg/kg | 0.01 | n.d. | |
| Dimethyltin, DMT | mg/kg | 0.10 | n.d. | |

**1.3.8.2. Peroxide value**

**Test Method:** with reference to European Pharmacopoeia, 2005 Appendix XF, Peroxide Value method A

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Peroxide value | --- | --- | Neg. | Negative |

**1.3.8.3. Volatile organic matter (VOM)**

**Test Method:** with reference to https://www.bfr.bund.de/cm/343/bestimmung-von-fluechtigen-verbindungen-in-bedarfsgegenstaenden-aus-silikon.pdf; articles that do not withstand thermal testing according to the above method shall be tested according to the temperature/time conditions specified in Table 3 in Annex V of Regulation (EU) No 10/2011. Sample conditioning is to be carried out according to the method specified in the 61st Communication of Bundesgesundheitsblatt 46 (2003) 362. This ap-plies to composite materials or articles with plastic or textiles such as conveyor belts, coated textiles or two-component injection molded parts for seals.

**Test Condition:** 4hours at 200℃

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Volatile organic matter | % | 0.01 | 0.41 | 0.5, max |

**1.3.8.4. Remaining Catalyst residue**

**Test Method:** acidic digestion, analyzed was performed by ICP-OES

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Total Lead content | mg/kg | 2.0 | n.d. | 40, max |
| Total Cadmium content | mg/kg | 2.0 | n.d. | 20, max |
| Total Platinum content | mg/kg | 2.0 | n.d. | 50, max |
| Comment(s) | | | PASS | --- |

**1.3.8.5. Specific migration of organotin (as Tin)**

**Test method:** with reference to EN 1313-1, analyzed by ICP-OES, ICP-MS

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 2# | |
| Test Media | | | 3% acetic acid | --- |
| Temperature, ℃ | | | 100.0 | --- |
| Contact Time, hour | | | 4.0 | --- |
| Specific migration of organotin (as Tin) | mg/kg | 0.01 | n.d. | ≤0.1 |
| Comment(s) | --- | --- | PASS | --- |

### 1.3.9. Additional requirements for PP materials

#### 1.3.9.1. Catalyst residue, Chromium, Vanadium, Zirconium and Hafnium Content

**Test Method:** with reference to EN 1122, analysis was performed by ICP-OES/ AAS

| Test Parameter | Units | MDL | Test Results | Permissible Limit |
|---|---|---|---|---|
| | | | 4# | |
| Total Chromium Content | mg/kg | 2 | n.d. | ≤10 |
| Total Vanadium Content | mg/kg | 5 | n.d. | ≤20 |
| Total Zirconium Content | mg/kg | 10 | n.d. | ≤100 |
| Total Hafnium Content | mg/kg | 10 | n.d. | ≤100 |

#### 1.3.9.2. color migration test

**Test Method:** Ministerial Decree of 21 March 1973 (Italy), Annex IV, section VI

| Test Items | Test Results | Permissible Limit |
|---|---|---|
| | 4# | |
| Test Media | 3% acetic acid | --- |
| Temperature, ℃ | 100.0 | --- |
| Contact Time, hour | 4.0 | --- |
| Color migration, transmission, % | >95 | ≥95 |
| Comment(s) | PASS | --- |

| Test Items | Test Results | Permissible Limit |
|---|---|---|
| | 4# | |
| Test Media | Coconut oil | --- |
| Temperature, ℃ | 100.0 | --- |
| Contact Time, hour | 4.0 | --- |
| Color migration, transmission, % | >95 | ≥95 |
| Comment(s) | PASS | --- |

### 1.4. Bisphenol A content

**Test Method:** with reference to CEN/TS 13130-13-2005, solvent extracted, followed analyzed by GC/MS and LC/MS/MS

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| Bisphenol A content<br>BPA, CAS No.80-05-7 | μg/kg | 1.0 | n.d. | n.d. | Not detected |

### 1.5. PAHs content

**Test Method:** With reference to AfPS GS 2019:01, Analysis was performed by GC-MS.

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| Naphthalene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Phenanthrene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |

| Test Parameter | Units | MDL | Test Results | | Permissible Limit |
|---|---|---|---|---|---|
| | | | 2# | 4# | |
| Anthracene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Fluoranthene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Pyrene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[a]anthracene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Chrysene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[b]fluoranthene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[k]fluoranthene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[a]pyrene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Indeno[1,2,3-cd]pyrene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Dibenzo[a,h]anthracene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[g,h,i]perylene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[j[fluoranthene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Benzo[e]pyrene | mg/kg | 0.2 | n.d. | n.d. | Refer to form |
| Sum of 15 PAHs | mg/kg | --- | n.d. | n.d. | Refer to form |
| Comment(s) | --- | --- | Cat.1 PASS | Cat.1 PASS | Refer to form |

**LIMITS FOR PAH IN PRODUCTS according to AfPS Document GS 2019:01**

| Parameter | Materials, that are intended to be put into the mouth or materials in toys with intended and prolonged skin-contact (longer than 30s) | Materials, not covered by category 1, with foreseeable skin-contact of > 30 s (prolonged skin-contact) or short-term repetitive contact with the human skin | | Materials, not covered by category 1 or 2, with foreseeable skin-contact of up to 30 s (short-term skin contact) | |
|---|---|---|---|---|---|
| | | Toys according to Toy Directive 2009/48/EU | Other products according to Product Safety Act | Toys according to Toy Directive 2009/48/EU | Other products according to Product Safety Act |
| Benzo[a]pyrene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[e]pyrene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[a]anthracene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[b]fluoroanthene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[j]fluoranthene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[k]fluoroanthene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Benzo[g,h,i]perylene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Chrysene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Dibenzo[a,h]anthracene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Indeno[1,2,3-cd]pyrene | <0.2 | <0.2 | <0.5 | <0.5 | <1 |
| Phenanthrene, Pyrene, Anthracene, Fluoranthene | Sum<1 | Sum<5 | Sum<10 | Sum<20 | Sum<50 |
| Naphthalene | <1 | <2 | <2 | <10 | <10 |
| Sum 15 PAHs | <1 | <5 | <10 | <20 | <50 |

Note:
1. The products in category 2 and category 3 are divided into two groups with respective limits: toys according to directive 2009/48/EC and all other products according to ProdSG.
2. Add the requirement of repeated short term skin contact material in category 2

Note,

%, percentage; mg, milligrams; g, grams; kg, kilograms
mg/kg = milligrams per kilograms; mg/L = milligrams per litre
0.1% = 1000mg/kg = 1000mg/L
< = less than; > = greater than
MDL = method detection limit
n.d. = not detected, < MDL
n.a. = not applicable
n.r. = not required
EX = abbr. of Exempted

***** To be continued *****

**2. REACH SVHC in candidate lists**

**Test Method:** In-house method, with reference to EPA 8270D, EPA 3052, EPA 6010C, EPA 3550C, EPA 8321B, EN14362, DIN EN ISO 17353, IEC 62321, AfPS GS 2019:01 PAK and EN 14582 etc., analyzed by GC-MS, LC, LC-MS-MS, IC, ICP-AES and UV-Vis etc..

Abbr.: MDL, means Method Detection Limit; N.D. = Not Detected, means the content is less than MDL.

| Seq.<br>Test Item(s) | Units | MDL | Results |
|---|---|---|---|
| | | | 6# |
| All tested SVHC in candidate lists | --- | --- | N.D. |

Appendix-Full list of tested SVHC and detection limit (MDL):

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 1 | 2,4-Dinitrotoluene | 204-450-0 | 121-14-2 | 0.005 |
| 2 | 2-Ethoxyethanol | 203-804-1 | 110-80-5 | 0.005 |
| 3 | 2-Methoxyethanol | 203-713-7 | 109-86-4 | 0.005 |
| 4 | 4,4'- Diaminodiphenylmethane(MDA) | 202-974-4 | 101-77-9 | 0.005 |
| 5 | 5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene) | 201-329-4 | 81-15-2 | 0.005 |
| 6 | Acrylamide | 201-173-7 | 79-06-1 | 0.005 |
| 7 | Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins) | 287-476-5 | 85535-84-8 | 0.005 |
| 8 | Aluminosilicate Refractory Ceramic Fibres*** | --- | --- | 0.005 |
| 9 | Ammonium dichromate* | 232-143-1 | 7789-09-5 | 0.005 |
| 10 | Anthracene | 204-371-1 | 120-12-7 | 0.005 |
| 11 | Anthracene oil | 292-602-7 | 90640-80-5 | 0.005 |
| 12 | Anthracene oil, anthracene paste | 292-603-2 | 90640-81-6 | 0.005 |
| 13 | Anthracene oil, anthracene paste, anthracene fraction | 295-275-9 | 91995-15-2 | 0.005 |
| 14 | Anthracene oil, anthracene paste; distn. Lights | 295-278-5 | 91995-17-4 | 0.005 |
| 15 | Anthracene oil, anthracene-low | 292-604-8 | 90640-82-7 | 0.005 |
| 16 | Benzyl butyl phthalate(BBP) | 201-622-7 | 85-68-7 | 0.005 |
| 17 | Bis(2-ethylhexyl)phthalate(DEHP) | 204-211-0 | 117-81-7 | 0.005 |
| 18 | Bis(tributyltin)oxide(TBTO)** | 200-268-0 | 56-35-9 | 0.005 |
| 19 | Boric acid* | 233-139-2<br>234-343-4 | 10043-35-3<br>11113-50-1 | 0.005 |
| 20 | Chromic acid, Oligomers of chromic acid and dichromic acid, Dichromic acid | 231-801-5<br>236-881-5 | 7738-94-5<br>13530-68-2 | 0.005 |
| 21 | Chromium trioxide* | 215-607-8 | 1333-82-0 | 0.005 |
| 22 | Cobalt dichloride* | 231-589-4 | 7646-79-9 | 0.005 |
| 23 | Cobalt(II) carbonate* | 208-169-4 | 513-79-1 | 0.005 |
| 24 | Cobalt(II) diacetate* | 200-755-8 | 71-48-7 | 0.005 |
| 25 | Cobalt(II) dinitrate* | 233-402-1 | 10141-05-6 | 0.005 |
| 26 | Cobalt(II) sulphate* | 233-334-2 | 10124-43-3 | 0.005 |
| 27 | Diarsenic pentaoxide* | 215-116-9 | 1303-28-2 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 28 | Diarsenic trioxide* | 215-481-4 | 1327-53-3 | 0.005 |
| 29 | Dibutyl Phthalate(DBP) | 201-557-4 | 84-74-2 | 0.005 |
| 30 | Diisobutyl Phthalate(DIBP) | 201-553-2 | 84-69-5 | 0.005 |
| 31 | Disodium tetraborate, anhydrous* | 215-540-4 | 1303-96-4<br>1330-43-4<br>12179-04-3 | 0.005 |
| 32 | Hexabromocyclododecane(HBCDD) and all major diastereoisomers identified: Alpha-hexabromocyclododecane Beta-hexabromocyclododecane Gamma-hexabromocyclododecane | 247-148-4<br>221-695-9 | 25637-99-4<br>3194-55-6<br>(134237-50-6)<br>(134237-51-7)<br>(134237-52-8) | 0.005 |
| 33 | Lead chromate* | 231-846-0 | 7758-97-6 | 0.005 |
| 34 | Lead chromate molybdate sulfate red (C.I. Pigment Red 104)* | 235-759-9 | 12656-85-8 | 0.005 |
| 35 | Lead hydrogen arsenate* | 232-064-2 | 7784-40-9 | 0.005 |
| 36 | Lead sulfochromate yellow (C.I.Pigment Yellow 34)* | 215-693-7 | 1344-37-2 | 0.005 |
| 37 | Coal tar pitch, high temperature | 266-028-2 | 65996-93-2 | 0.005 |
| 38 | Potassium chromate* | 232-140-5 | 7789-00-6 | 0.005 |
| 39 | Potassium dichromate* | 231-906-6 | 7778-50-9 | 0.005 |
| 40 | Sodium chromate* | 231-889-5 | 7775-11-3 | 0.005 |
| 41 | Sodium dichromate* | 234-190-3 | 7789-12-0<br>10588-01-9 | 0.005 |
| 42 | Tetraboron disodium heptaoxide, hydrate* | 235-541-3 | 12267-73-1 | 0.005 |
| 43 | Trichloroethylene | 201-167-4 | 79-01-6 | 0.005 |
| 44 | Triethyl arsenate* | 427-700-2 | 15606-95-8 | 0.005 |
| 45 | Tris(2-chloroethyl)phosphate | 204-118-5 | 115-96-8 | 0.005 |
| 46 | Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.2 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the two following conditions:<br>a) Al2O3, SiO2 and ZrO2 are present within the following concentration ranges:<br>Al2O3: 35 – 36 % w/w, and<br>SiO2: 47.5 – 50 % w/w, and<br>ZrO2: 15 – 17 % w/w,<br>b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (μm)*** | --- | --- | 0.005 |
| 47 | 2-ethoxyethyl acetate | 203-839-2 | 111-15-9 | 0.005 |
| 48 | Strontium chromate* | 232-142-6 | 7789-06-2 | 0.005 |
| 49 | 1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters | 271-084-6 | 68515-42-4 | 0.005 |
| 50 | Hydrazine | 206-114-9 | 7803-57-8<br>302-01-2 | 0.005 |
| 51 | 1-methyl-2-pyrrolidone | 212-828-1 | 872-50-4 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 52 | 1,2,3-trichloropropane | 202-486-1 | 96-18-4 | 0.005 |
| 53 | 1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters,C7-rich | 276-158-1 | 71888-89-6 | 0.005 |
| 54 | Lead dipicrate* | 229-335-2 | 6477-64-1 | 0.005 |
| 55 | Lead styphnate* | 239-290-0 | 15245-44-0 | 0.005 |
| 56 | Lead azide Lead diazide* | 236-542-1 | 13424-46-9 | 0.005 |
| 57 | Phenolphthalein | 201-004-7 | 77-09-8 | 0.005 |
| 58 | 2,2'-dichloro-4,4'-methylenedianiline | 202-918-9 | 101-14-4 | 0.005 |
| 59 | N,N-dimethylacetamide | 204-826-4 | 127-19-5 | 0.005 |
| 60 | Trilead diarsenate* | 222-979-5 | 3687-31-8 | 0.005 |
| 61 | Calcium arsenate* | 231-904-5 | 7778-44-1 | 0.005 |
| 62 | Arsenic acid* | 231-901-9 | 7778-39-4 | 0.005 |
| 63 | Bis(2-methoxyethyl) ether | 203-924-4 | 111-96-6 | 0.005 |
| 64 | 1,2-Dichloroethane | 203-458-1 | 107-06-2 | 0.005 |
| 65 | 4-(1,1,3,3-tetramethylbutyl)phenol | 205-426-2 | 140-66-9 | 0.005 |
| 66 | 2-Methoxyaniline; o-Anisidine | 201-963-1 | 90-04-0 | 0.005 |
| 67 | Bis(2-methoxyethyl) phthalate | 204-212-6 | 117-82-8 | 0.005 |
| 68 | Formaldehyde, oligomeric reaction products with aniline | 500-036-1 | 25214-70-4 | 0.005 |
| 69 | Pentazinc chromate octahydroxide* | 256-418-0 | 49663-84-5 | 0.005 |
| 70 | Potassium hydroxyoctaoxodizincatedi-chromate* | 234-329-8 | 11103-86-9 | 0.005 |
| 71 | Dichromium tris(chromate)* | 246-356-2 | 24613-89-6 | 0.005 |
| 72 | 1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme) | 203-977-3 | 112-49-2 | 0.005 |
| 73 | 1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME) | 203-794-9 | 110-71-4 | 0.005 |
| 74 | Diboron trioxide* | 215-125-8 | 1303-86-2 | 0.005 |
| 75 | Formamide | 200-842-0 | 75-12-7 | 0.005 |
| 76 | Lead(II) bis(methanesulfonate) * | 401-750-5 | 17570-76-2 | 0.005 |
| 77 | TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6 (1H,3H,5H)-trione) | 219-514-3 | 2451-62-9 | 0.005 |
| 78 | β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione) | 423-400-0 | 59653-74-6 | 0.005 |
| 79 | 4,4'-bis(dimethylamino) benzophenone (Michler's ketone) | 202-027-5 | 90-94-8 | 0.005 |
| 80 | N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler'sbase) | 202-959-2 | 101-61-1 | 0.005 |
| 81 | [4-[4,4'-bis(dimethylamino) benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylam monium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] **** | 208-953-6 | 548-62-9 | 0.005 |
| 82 | [4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] **** | 219-943-6 | 2580-56-5 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 83 | α,α-Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] **** | 229-851-8 | 6786-83-0 | 0.005 |
| 84 | 4,4'-bis(dimethylamino)-4"-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)] **** | 209-218-2 | 561-41-1 | 0.005 |
| 85 | Bis(pentabromophenyl) ether (DecaBDE) | 214-604-9 | 1163-19-5 | 0.005 |
| 86 | Pentacosafluorotridecanoic acid | 276-745-2 | 72629-94-8 | 0.005 |
| 87 | Tricosafluorododecanoic acids | 206-203-2 | 307-55-1 | 0.005 |
| 88 | Henicosafluoroundecanoic acid | 218-165-4 | 2058-94-8 | 0.005 |
| 89 | Heptacosafluorotetradecanoic acid | 206-803-4 | 376-06-7 | 0.005 |
| 90 | 4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated -covering well-defined substances and UVCB substances, polymers and homologues | --- | --- | 0.005 |
| 91 | 4-Nonylphenol, branched and linear -substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof | --- | --- | 0.005 |
| 92 | Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) | 204-650-8 | 123-77-3 | 0.005 |
| 93 | Cyclohexane-1,2-dicarboxylic anhydride (Hexahydrophthalic anhydride – HHPA) | 201-604-9 | 85-42-7 | 0.005 |
| 94 | Hexahydromethylphathalic anhydride,Hexahydro-4-methylphathalic anhydride,Hexahydro-1-methylphathalic anhydride,Hexahydro-3-methylphathalic anhydride | 247-094-1<br>243-072-0<br>256-356-4<br>260-566-1 | 25550-51-0<br>19438-60-9<br>48122-14-1<br>57110-29-9 | 0.005 |
| 95 | Methoxy acetic acid | 210-894-6 | 625-45-6 | 0.005 |
| 96 | 1,2-Benzenedicarboxylic acid, dipentylester,branched and linear | 284-032-2 | 84777-06-0 | 0.005 |
| 97 | Diisopentylphthalate (DIPP) | 210-088-4 | 605-50-5 | 0.005 |
| 98 | N-pentyl-isopentyl phthalate | --- | --- | 0.005 |
| 99 | 1,2-Diethoxyethane | 211-076-1 | 629-14-1 | 0.005 |
| 100 | N,N-dimethylformamide; dimethyl formamide | 200-679-5 | 68-12-2 | 0.005 |
| 101 | Dibutyltin dichloride (DBT) | 211-670-0 | 683-18-1 | 0.005 |
| 102 | Acetic acid, lead salt, basic* | 257-175-3 | 51404-69-4 | 0.005 |
| 103 | Basic lead carbonate (trilead bis(carbonate)dihydroxide)* | 215-290-6 | 1319-46-6 | 0.005 |
| 104 | Lead oxide sulfate (basic lead sulfate)* | 234-853-7 | 12036-76-9 | 0.005 |
| 105 | [Phthalato(2-)]dioxotrilead (dibasic lead phthalate)* | 273-688-5 | 69011-06-9 | 0.005 |
| 106 | Dioxobis(19ricycle)trilead* | 235-702-8 | 12578-12-0 | 0.005 |
| 107 | Fatty acids, C16-18, lead salts* | 292-966-7 | 91031-62-8 | 0.005 |
| 108 | Lead bis(tetrafluoroborate)* | 237-486-0 | 13814-96-5 | 0.005 |
| 109 | Lead cynamidate* | 244-073-9 | 20837-86-9 | 0.005 |
| 110 | Lead dinitrate* | 233-245-9 | 10099-74-8 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 111 | Lead oxide (lead monoxide)* | 215-267-0 | 1317-36-8 | 0.005 |
| 112 | Lead tetroxide (orange lead)* | 215-235-6 | 1314-41-6 | 0.005 |
| 113 | Lead titanium trioxide* | 235-038-9 | 12060-00-3 | 0.005 |
| 114 | Lead Titanium Zirconium Oxide* | 235-727-4 | 12626-81-2 | 0.005 |
| 115 | Pentalead tetraoxide sulphate* | 235-067-7 | 12065-90-6 | 0.005 |
| 116 | Pyrochlore, antimony lead yellow* | 232-382-1 | 8012-00-8 | 0.005 |
| 117 | Silicic acid, barium salt, lead-doped* | 272-271-5 | 68784-75-8 | 0.005 |
| 118 | Silicic acid, lead salt* | 234-363-3 | 11120-22-2 | 0.005 |
| 119 | Sulfurous acid, lead salt, dibasic* | 263-467-1 | 62229-08-7 | 0.005 |
| 120 | Tetraethyllead* | 201-075-4 | 78-00-2 | 0.005 |
| 121 | Tetralead trioxide sulphate* | 235-380-9 | 12202-17-4 | 0.005 |
| 122 | Trilead dioxide phosphonate* | 235-252-2 | 12141-20-7 | 0.005 |
| 123 | Furan | 203-727-3 | 110-00-9 | 0.005 |
| 124 | Propylene oxide; 1,2-epoxypropane; methyloxirane | 200-879-2 | 75-56-9 | 0.005 |
| 125 | Diethyl sulphate | 200-589-6 | 64-67-5 | 0.005 |
| 126 | Dimethyl sulphate | 201-058-1 | 77-78-1 | 0.005 |
| 127 | 3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine | 421-150-7 | 143860-04-2 | 0.005 |
| 128 | Dinoseb | 201-861-7 | 88-85-7 | 0.005 |
| 129 | 4,4'-methylenedi-o-toluidine | 212-658-8 | 838-88-0 | 0.005 |
| 130 | 4,4'-oxydianiline and its salts | 202-977-0 | 101-80-4 | 0.005 |
| 131 | 4-Aminoazobenzene | 200-453-6 | 60-09-3 | 0.005 |
| 132 | 4-methyl-m-phenylenediamine (toluene -2,4 –diamine) | 202-453-1 | 95-80-7 | 0.005 |
| 133 | 6-methoxy-m-toluidine (p-cresidine) | 204-419-1 | 120-71-8 | 0.005 |
| 134 | Biphenyl-4-ylamine | 202-177-1 | 92-67-1 | 0.005 |
| 135 | O-aminoazotoluene | 202-591-2 | 97-56-3 | 0.005 |
| 136 | O-Toluidine | 202-429-0 | 95-53-4 | 0.005 |
| 137 | N-methylacetamide | 201-182-6 | 79-16-3 | 0.005 |
| 138 | 1-bromopropane(n-propyl bromide) | 203-445-0 | 106-94-5 | 0.005 |
| 139 | Cadmium* | 231-152-8 | 7440-43-9 | 0.005 |
| 140 | Cadmium oxide* | 215-146-2 | 1306-19-0 | 0.005 |
| 141 | Ammonium pentadecafluorooctanoate(APFO) | 223-320-4 | 3825-26-1 | 0.005 |
| 142 | Pentadecafluorooctanoic acid(PFOA) | 206-397-9 | 335-67-1 | 0.005 |
| 143 | Dipentyl phthalate(DPP) | 205-017-9 | 131-18-0 | 0.005 |
| 144 | 4-Nonylphenol, branched and linear,ethoxylated | --- | --- | 0.005 |
| 145 | Cadmium sulphide* | 215-147-8 | 1306-23-6 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 146 | Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28) | 209-358-4 | 573-58-0 | 0.005 |
| 147 | Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo] -5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38) | 217-710-3 | 1937-37-7 | 0.005 |
| 148 | Dihexyl phthalate | 201-559-5 | 84-75-3 | 0.005 |
| 149 | Imidazolidine-2-thione (2-imidazoline-2-thiol) | 202-506-9 | 96-45-7 | 0.005 |
| 150 | Lead di(acetate) * | 206-104-4 | 301-04-2 | 0.005 |
| 151 | Trixylyl phosphate | 246-677-8 | 25155-23-1 | 0.005 |
| 152 | 1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear | 271-093-5 | 68515-50-4 | 0.005 |
| 153 | Sodium perborate; perboric acid, sodium salt * | 239-172-9<br>234-390-0 | --- | 0.005 |
| 154 | Sodium peroxometaborate* | 231-556-4 | 7632-04-4 | 0.005 |
| 155 | Cadmium chloride* | 233-296-7 | 10108-64-2 | 0.005 |
| 156 | Cadmium fluoride* | 232-222-0 | 7790-79-6 | 0.005 |
| 157 | Cadmium sulphate* | 233-331-6 | 10124-36-4<br>31119-53-6 | 0.005 |
| 158 | 2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) | 223-346-6 | 3846-71-7 | 0.005 |
| 159 | 2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328) | 247-384-8 | 25973-55-1 | 0.005 |
| 160 | 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE) | 239-622-4 | 15571-58-1 | 0.005 |
| 161 | Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE) | --- | --- | 0.005 |
| 162 | 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyldiesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5) | 271-094-0<br>272-013-1 | 68515-51-5<br>68648-93-1 | 0.005 |
| 163 | 5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane[1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof] | --- | --- | 0.005 |
| 164 | Nitrobenzene | 202-716-0 | 98-95-3 | 0.005 |
| 165 | 2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327) | 223-383-8 | 3864-99-1 | 0.005 |
| 166 | 2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350) | 253-037-1 | 36437-37-3 | 0.005 |
| 167 | 1,3-propanesultone | 214-317-9 | 1120-71-4 | 0.005 |
| 168 | Perfluorononan-1-oic-acid and its sodium and ammonium saltspropanesultone | 206-801-3 | 375-95-1<br>21049-39-8<br>4149-60-4 | 0.005 |
| 169 | Benzo[a]pyrene | 200-028-5 | 50-32-8 | 0.005 |
| 170 | 4,4'-isopropylidenediphenol (bisphenol A) | 201-245-8 | 80-05-7 | 0.005 |
| 171 | Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts | 206-400-3<br>221-470-5 | 3108-42-7<br>335-76-2 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| | | | 3830-45-3 | |
| 172 | 4-Heptylphenol, branched and linear substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof | --- | --- | 0.005 |
| 173 | P-(1,1-dimethylpropyl)phenol | 201-280-9 | 80-46-6 | 0.005 |
| 174 | Perfluorohexane-1-sulphonic acid and its salts (PFHxS) | --- | --- | 0.005 |
| 175 | Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene ("Dechlorane Plus"™) covering any of its individual anti- and syn-isomers or any combination thereof | --- | --- | 0.005 |
| 176 | Benz[a]anthracene | 200-280-6 | 56-55-3 1718-53-2 | 0.005 |
| 177 | Cadmium nitrate* | 233-710-6 | 10325-94-7, 10022-68-1 | 0.005 |
| 178 | Cadmium carbonate* | 208-168-9 | 513-78-0 | 0.005 |
| 179 | Cadmium hydroxide* | 244-168-5 | 21041-95-2 | 0.005 |
| 180 | Chrysene | 205-923-4 | 218-01-9, 1719-03-5 | 0.005 |
| 181 | Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear] | --- | --- | 0.005 |
| 182 | Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA) | 209-008-0 | 552-30-7 | 0.005 |
| 183 | Dicyclohexyl phthalate (DCHP) | 201-545-9 | 84-61-7 | 0.005 |
| 184 | Benzo[ghi]perylene | 205-883-8 | 191-24-2 | 0.005 |
| 185 | Decamethylcyclopentasiloxane (D5) | 208-764-9 | 541-02-6 | 0.005 |
| 186 | Disodium octaborate* | 234-541-0 | 12008-41-2 | 0.005 |
| 187 | Dodecamethylcyclohexasiloxane (D6) | 208-762-8 | 540-97-6 | 0.005 |
| 188 | Ethylenediamine | 203-468-6 | 107-15-3 | 0.005 |
| 189 | Lead | 231-100-4 | 7439-92-1 | 0.005 |
| 190 | Octamethylcyclotetrasiloxane (D4) | 209-136-7 | 556-67-2 | 0.005 |
| 191 | Terphenyl hydrogenated | 262-967-7 | 61788-32-7 | 0.005 |
| 192 | Pyrene | 204-927-3 | 129-00-0; 1718-52-1 | 0.005 |
| 193 | Phenanthrene | 201-581-5 | 85-01-8 | 0.005 |
| 194 | Fluoranthene | 205-912-4 | 206-44-0; 93951-69-0 | 0.005 |
| 195 | Benzo[k]fluoranthene | 205-916-6 | 207-08-9 | 0.005 |
| 196 | 2,2-bis(4'-hydroxyphenyl)-4-methylpentane | 401-720-1 | 6807-17-6 | 0.005 |
| 197 | 1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one(3-benzylidene camphor; 3-BC) | 239-139-9 | 15087-24-8 | 0.005 |
| 198 | 4-tert-butylphenol (PTBP) | 202-679-0 | 98-54-4 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 199 | 2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof) | --- | --- | 0.005 |
| 200 | 2-methoxyethyl acetate | 203-772-9 | 110-49-6 | 0.005 |
| 201 | Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP) | --- | --- | 0.005 |
| 202 | 2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone | 404-360-3 | 119313-12-1 | 0.005 |
| 203 | 2-methyl-1-(4-methylthiophenyl)-2-morpholino propan-1-one | 400-600-6 | 71868-10-5 | 0.005 |
| 204 | Diisohexyl phthalate | 276-090-2 | 71850-09-4 | 0.005 |
| 205 | Perfluorobutane sulfonic acid (PFBS) and its salts | --- | --- | 0.005 |
| 206 | 1-vinylimidazole | 214-012-0 | 1072-63-5 | 0.005 |
| 207 | 2-methylimidazole | 211-765-7 | 693-98-1 | 0.005 |
| 208 | butyl 4-hydroxybenzoate | 202-318-7 | 94-26-8 | 0.005 |
| 209 | Dibutylbis(pentane-2,4-dionato-O,O')tin | 245-152-0 | 22673-19-4 | 0.005 |
| 210 | Bis(2-(2-methoxyethoxy)ethyl)ether (tetraglyme) | 205-594-7 | 143-24-8 | 0.005 |
| 211 | Dioctyltin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. Wherein C12 is the predominant carbon number of the fatty acyloxy moiety | --- | --- | 0.005 |
| 212 | 1,4-dioxane | 204-661-8 | 123-91-1 | 0.005 |
| 213 | 2,2-bis(bromomethyl)propane1,3-diol (BMP); 2,2-dimethylpropan-1-ol, tribromo derivative/3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA); 2,3-dibromo-1-propanol (2,3-DBPA) | 221-967-7; 253-057-0; 202-480-9 | 3296-90-0; 36483-57-5/ 1522-92-5; 96-13-9 | 0.005 |
| 214 | 2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers | --- | --- | 0.005 |
| 215 | 4,4'-(1-methylpropylidene)bisphenol; (bisphenol B) | 201-025-1 | 77-40-7 | 0.005 |
| 216 | Glutaral | 203-856-5 | 111-30-8 | 0.005 |
| 217 | Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17] | --- | --- | 0.005 |
| 218 | Orthoboric acid, sodium salt* | --- | --- | 0.005 |
| 219 | Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP) | --- | --- | 0.005 |
| 220 | (±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo[2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC) | --- | --- | 0.005 |
| 221 | 6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC) | 204-327-1 | 119-47-1 | 0.005 |
| 222 | S-(tricyclo(5.2.1.0'2,6)deca-3-en-8(or 9)-yl O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate | 401-850-9 | 255881-94-8 | 0.005 |
| 223 | Tris(2-methoxyethoxy)vinylsilane | 213-934-0 | 1067-53-4 | 0.005 |
| 224 | N-(hydroxymethyl)acrylamide | 213-103-2 | 924-42-5 | 0.005 |

| No. | Substance Name | EC. No. | CAS No. | MDL(%) |
|---|---|---|---|---|
| 225 | 1,1'-[ethane-1,2-diylbisoxy]bis[2,4,6-tribromobenzene] | 253-692-3 | 37853-59-1 | 0.005 |
| 226 | 2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (TBBPA) | 201-236-9 | 79-94-7 | 0.005 |
| 227 | 4,4'-sulphonyldiphenol (BPS) | 201-250-5 | 80-09-1 | 0.005 |
| 228 | Barium diboron tetraoxide | 237-222-4 | 13701-59-2 | 0.005 |
| 229 | Bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof | - | - | 0.005 |
| 230 | Isobutyl 4-hydroxybenzoate | 224-208-8 | 4247-02-3 | 0.005 |
| 231 | melamine | 203-615-4 | 108-78-1 | 0.005 |
| 232 | Perfluoroheptanoic acid and its salts | - | - | 0.005 |
| 233 | reaction mass of 2,2,3,3,5,5,6,6-octafluoro-4-(1,1,1,2,3,3,3-heptafluoropropan-2-yl)morpholine and 2,2,3,3,5,5,6,6-octafluoro-4-(heptafluoropropyl)morpholine | 473-390-7 | - | 0.005 |
| 234 | bis(4-chlorophenyl) sulphone | 201-247-9 | 80-07-9 | 0.005 |
| 235 | Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide | 278-355-8 | 75980-60-8 | 0.005 |
| 236 | 2,4,6-tri-tert-butylphenol | 211-989-5 | 732-26-3 | 0.005 |
| 237 | 2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl)phenol(UV-329) | 221-573-5 | 3147-75-9 | 0.005 |
| 238 | 2-(dimethylamino)-2-[(4-methylphenyl)methyl]-1-[4-(morpholin-4-yl)phenyl]butan-1-one | 438-340-0 | 119344-86-4 | 0.005 |
| 239 | Bumetrizole(UV-326) | 223-445-4 | 3896-11-5 | 0.005 |
| 240 | Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol | 700-960-7 | - | 0.005 |
| 241 | Bis(α,α-dimethylbenzyl) peroxide | 201-279-3 | 80-43-3 | 0.005 |
| 242 | Triphenyl phosphate | 204-112-2 | 115-86-6 | 0.005 |
| 243 | 6-[(C10-C13)-alkyl-(branched, unsaturated)-2,5-dioxopyrrolidin-1-yl]hexanoic acid | 701-118-1 | 2156592-54-8 | 0.005 |
| 244 | O,O,O-triphenyl phosphorothioate | 209-909-9 | 597-82-0 | 0.005 |
| 245 | Octamethyltrisiloxane | 203-497-4 | 107-51-7 | 0.005 |
| 246 | Perfluamine | 206-420-2 | 338-83-0 | 0.005 |
| 247 | reaction mass of: triphenylthiophosphate and tertiary butylated phenyl derivatives | 421-820-9 | 192268-65-8 | 0.005 |
| 248 | 1,1,1,3,5,5,5-heptamethyl-3-[(trimethylsilyl)oxy] trisiloxane | 241-867-7 | 17928-28-8 | 0.005 |
| 249 | Decamethytetrasiloxane | 205-491-7 | 141-62-8 | 0.005 |
| 250 | tetra(sodium/potassium)7-[(E)-f2-acetamido4-[(E)-(4-{[4-chloro-6-({2-[(4-fluoro-6-f[4-(vinylsulfonyl)phenyllaminol-1,3,5-triazine-2.yl)aminolpropyl}amino)-1,3,5-triazine-2-yllamino}-5-sulfonato-1-naphthyl)diazenyl]-5methoxyphenyl}diazenyl1-1.3.6-naphthalenetrisulfonate; Reactive Brown 51 | 466-490-7 | - | 0.005 |

**Remark 1** **1)** In accordance with Regulation (EC) No. 1907/2006, any producer or importer of articles shall notify ECHA, in accordance with paragraph 4 of Article 7, if a substance meets the criteria in Article 57 and is identified in accordance with Article 59(1), if both the following conditions are met:
(a) the substance is present in those articles in quantities totalling over 1 tonne per producer or importer per year;

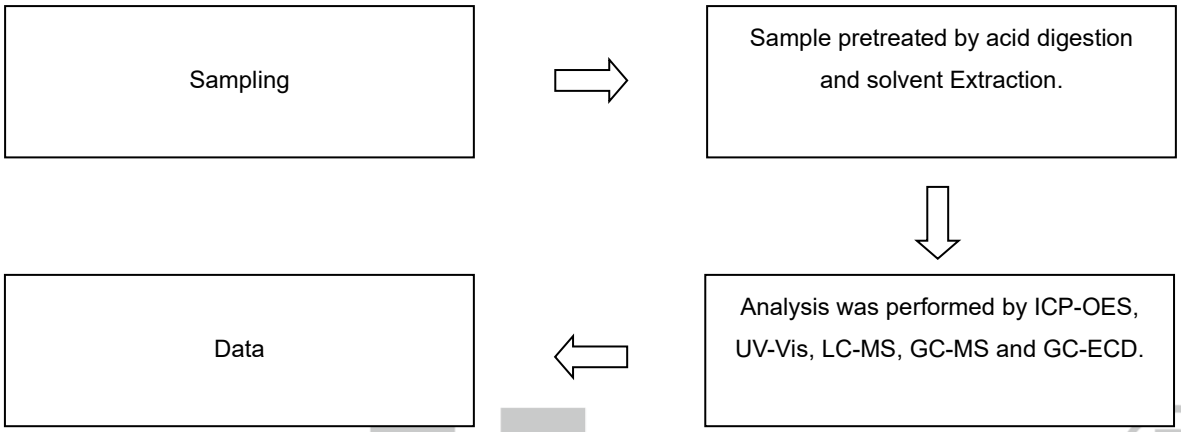
(b) the substance is present in those articles above a concentration of 0,1 % weight by weight (w/w).
**2)** From 28 October 2008, EU & EEA suppliers of articles which contain substances on the Candidate List in a concentration above 0.1% (w/w) must provide sufficient information, available to them, to their customers and on request to a consumer within 45 days of the receipt of this request. This information must ensure safe use of the article and, as a minimum, include the name of the substance.
**3)** From 5 January 2021, duty holder supplying articles containing substances of very high concern (SVHCs) on the Candidate List in a concentration above 0.1% (w/w) on the EU market must comply with the Waste Framework Directive 2008/98/EC requirement and submit SCIP notifications on these articles to ECHA.

**Remark 2**

**1)*** Calculated concentration of cobalt dichloride, cobalt(II) sulphate, cobalt(II) dinitrate, cobalt(II) carbonate and cobalt(II) diacetate is based on the identified heavy metal and anion result. Calculated concentration of diarsenic pentaoxide, diarsenic trioxide,chromium trioxide,sodium dichromate, dehydrate, lead hydrogen arsenate, triethyl arsenate, lead chromate, sodium chromate, strontium chromate ,potassium chromate, ammonium dichromate,potassium dichromate, lead chromate molybdate sulfate red, lead sulfochromate yellow and acids generated from chromium trioxide and their oligomers, Lead dipicrate, Lead styphnate, Lead azide Lead diazide, Trilead diarsenate , Calcium arsenate , Arsenic acid , Potassium hydroxyoctaoxodizincatedi-chromate, Dichromium tris(chromate), Pentazinc chromate octahydroxide, Lead(II) bis(methanesulfonate), Diboron trioxide ,Acetic acid, lead salt, basic, Basic lead carbonate (trilead bis(carbonate)dihydroxide), Lead oxide sulfate (basic lead sulfate), [Phthalato(2-)]dioxotrilead (dibasic lead phthalate), Dioxobis(stearato)trilead, Fatty acids, C16-18, lead salts, Lead bis(tetrafluoroborate), Lead cynamidate, Lead dinitrate, Lead oxide (lead monoxide), Lead tetroxide (orange lead), Lead titanium trioxide, Lead Titanium Zirconium Oxide , Pentalead tetraoxide sulphate , Pyrochlore, antimony lead yellow ,Silicic acid, barium salt, lead-doped , Sulfurous acid, lead salt, dibasic, Tetraethyllead, Tetralead trioxide sulphate, Trilead dioxide phosphonate,Cadmium,Cadmium oxide,Cadmium sulphide and Lead di(acetate), Cadmium chloride, Cadmium fluoride, Cadmium sulphate, Cadmium nitrate, Cadmium carbonate, Cadmium hydroxide are based on the identified heavy metal result,boric acid, disodium tetraborate, anhydrous and tetraboron disodium heptaoxide, hydrate , Sodium perborate; perboric acid, sodium salt , Sodium peroxometaborate, Disodium octaborate, Orthoboric acid, sodium salt are based on the identified result of boron and sodium result. The identities of above metal substances present in the article have to be further confirmed;
**2)**** Concentration of bis(tributyltin)oxide, TBTO is reported as tributyltin, TBT. The result is a screening test of TBTO and can cover TBTO and other salts under current technologies. Further investigation is needed to have the exact amount of TBTO;
**3)***** Calculated concentration of Aluminosilicate, Refractory Ceramic Fibres ;Zirconia Aluminosilicate, Refractory Ceremic Fibres is based on the identified heavy metal result and confirmation by microscope;
**4)** ******The substance does only fulfil the criteria of REACH Art. 57 (a) if it contains Michler's ketone (EC Number: 202-027-5) or Michler's base (EC Number: 202-959-2) in a concentration ≥ 0.1% (weight / weight);
**5)** N.D. = Not detected, less than MDL

******** To be continued ********

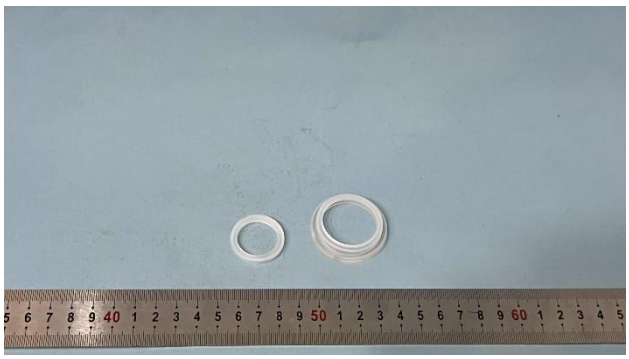
## FLOW CHART




***** To be continued *****

## SAMPLE IMAGE

*1#*



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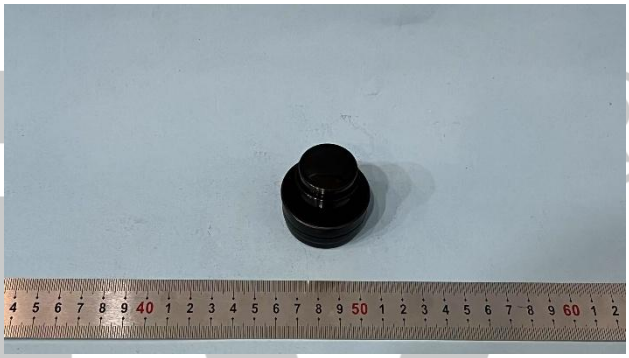

*4#*

*5#*

*Tested samples*

*Tested samples*

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*20428*

*19416 01*

*19416 02*

*19416 03*

*19416 04*

*19416 06*

*19416 08*

*19416 09*

*19416 10*

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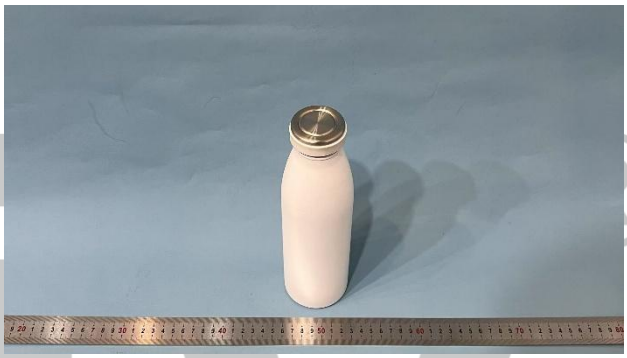
*19425 03*

*19425 09*

*19425 10*

*20441 01*



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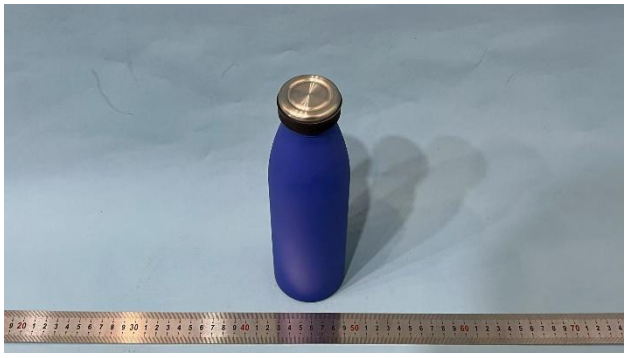

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*21411 02*

*21411 03*

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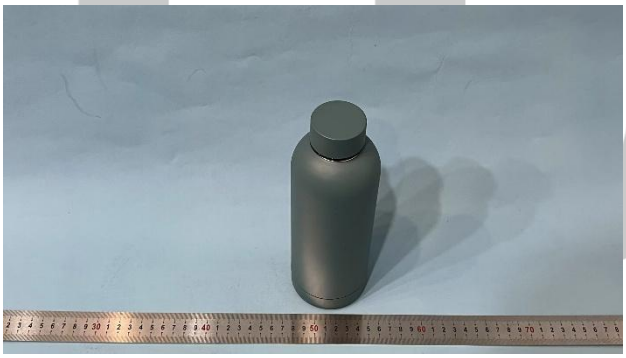

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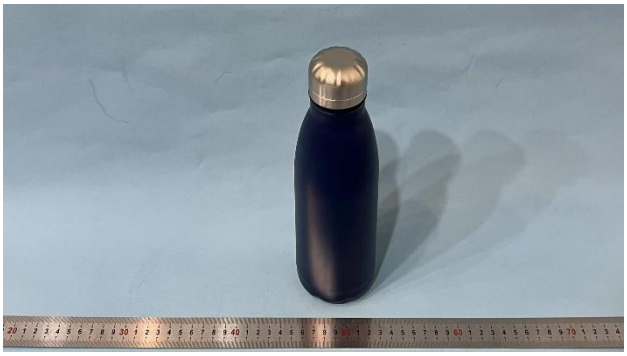

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*L9196AA24*

*26437 01*

*26437 37*

*26437 02*

*26437 05*

********** END OF REPORT **********