



21.97294

**I I S G**

## TEST REPORT: 21.97294

This report is composed by 22 pages, of which:

- 2 pages for the Summary
- 8 pages for the Report 21.97294a
- 12 pages for the Report 21.97294b

**Date in sample:** 29 October 2021  
**Issue date:** 11 November 2021

**MANUFACTURER** Q23365

IMPER ITALIA Srl  
Via Rita Atria, 8  
10079 MAPPANO NO ITALIA

**APPLICANT** Q23365

IMPER ITALIA Srl  
Via Rita Atria, 8  
10079 MAPPANO

NO ITALIA

**SAMPLE DESCRIPTION (no. 645911)**

PIR Board F/F



TEST REPORT: 21.97294

dated 11 Nov 2021

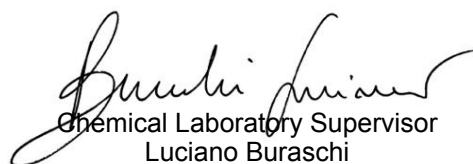
**SAMPLE DESCRIPTION (no. 645911)**

PIR Board F/F

**TEST PERFORMED**

<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 50.5 (Aromatic Polycyclic Hydrocarbons)</b>	<b>Complies</b>
<b>Regulation (EU) 2019/1021 on persistent organic pollutants – Annex I – Part A (SCCPs)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 62 (Mercury compounds)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 63 (Lead)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 63 (Lead)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 51.3 (Phthalates - DEHP, DBP, BBP, DIBP)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 23.1 (Cadmium and its compounds)</b>	<b>Complies</b>
<b>Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 20 (Organostannic compounds)</b>	<b>Complies</b>
<b>Regulation EC n. 1907/2006, article 33: determination of SVHC within the components of the sample received</b>	<b>Complies</b>

**Note:** it is prohibited the partial reproduction, any changes or modifications of this test report. Sampling performed by the customer.  
Data contained in the first page of this document have been declared by the client, the laboratory is not responsible for the results that could be influenced by such data.  
Data related to the sample have been provided by the customer.  
The results are exclusively referred to the samples tested as received by the laboratory unless otherwise specified.  
Conclusions/judgments are expressed with exclusive reference to parts detailed in the following pages and based on limits there specified.  
Recovery between 80-110% is not indicated on test reports and it is not considered in the final calculation.



Chemical Laboratory Supervisor  
Luciano Buraschi



21.97294a

I I S G

**TEST REPORT: 21.97294a** dated 10 November 2021

This section is an integral part of the TEST REPORT 21.97294

**DATES**

Test beginning: 02 Nov 2021

Issue date: 10 Nov 2021

**APPLICANT**

IMPER ITALIA Srl

**SAMPLE DESCRIPTION (no. 645911)**

PIR Board F/F

**Content of phthalates (DEHP, DBP, BBP, DIBP)****Method:** CPSC-CH-C1001-09.4**Instrument:** GC-MS**Identification Parts**

DIBP DEHP DBP BBP

PIR Board F/F (plastic)

&lt;0,005 &lt;0,005 &lt;0,005 &lt;0,005

**Legend:**

The results are expressed in % (percentage weight).  
The symbol < followed by a number indicates that the concentration of the element is less than detection limit expressed by that number.

The phthalates determined are:

DIBP = di-iso-butyl phthalate (CAS 84-69-5)

DBP = Dibutylphthalate (CAS 84-74-2)

DEHP = Bis(2-ethylhexyl)phthalate (CAS 117-81-7)

BBP = Benzylbutylphthalate (CAS 85-68-7)

**Requirements:** The articles shall not contain phthalates in amounts equal to or greater than 0.1% as single or in any combination of DEHP, DBP, BBP, DIBP.

**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 51.3 (Phthalates - DEHP, DBP, BBP, DIBP)

**Conclusion:** The results found **COMPLY** with the above requirements.

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dated 10 November 2021

**Cadmium Content****Method:** EN 1122:2001 (Method B)**Instrument:** Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES)

## Identification Parts

## Cd

PIR Board F/F (plastic)

&lt;0,001

**Legend:**

The results are expressed in % (percentage weight).

The symbol &lt; followed by a number indicates that the concentration of the cadmium is less than the detection limit expressed by that number.

Cd: Cadmium

**Requirements:** No more than 0.01% (100 mg/kg)**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 23.1 (Cadmium and its compounds)**Conclusion:** The results found **COMPLY** with the requirements above reported.

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dated 10 November 2021

Tin content	
Method:	CPSC-CH-E1002-08.1 (Modified)
Instrument:	Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES)

Identification Parts	Tin
PIR Board F/F (plastic)	< 0,001

**Legend:** The results are expressed in % (percent weight).  
The symbol < followed by a number indicates that the concentration of the Tin is less than the detection limit expressed by that number.

**Requirements:** No more than 0.1% (1000 mg/kg)

**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 20 (Organostannic compounds)

**Conclusion:** The results found **COMPLY** with the above requirements.

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dated 10 November 2021

**Determination of chlorinated paraffins****Method:** ISO 18219-1:2021**Instrument:** Gas chromatograph with MS detector (GC/ECNI-MS)

Identification Parts

Short chain (SCCPs) C10-C13

PIR Board F/F (plastic)

&lt;50

**Legend:** The results expressed are in mg/kg.  
The symbol < followed by a number indicates that the concentration of the element is less than the limit of quantification (LOQ)

**Requirements:** 1500 mg/kg (0,15%)

**Reference:** Regulation (EU) 2019/1021 on persistent organic pollutants – Annex I – Part A (SCCPs)

**Conclusion:** The results found **COMPLY** with the above requirements.

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dated 10 November 2021

**Mercury Content****Method:** ISO 8124-5:2015**Instrument:** Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES)

## Identification Parts

## Hg

PIR Board F/F (plastic) &lt;0,001

PIR Board F/F (metal) &lt;0,001

**Legend:**

The results are expressed in % (percent weight).

The symbol &lt; followed by a number indicates that the concentration of the element is less than the detection limit expressed by that number.

Hg: Mercury

**Requirements:** No more than 0.01% (100 mg/kg)**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 62 (Mercury compounds)**Conclusion:** The results found **COMPLY** with the above requirements.

TEST REPORT: 21.97294a

dated 10 November 2021

**Non Metal Products - Lead Content****Method:** CPSC-CH-E1002-08.3**Instrument:** Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES) - Inductively Coupled Plasma - Mass Spectrometry (ICP-MS)**Identification Parts****Pb**

PIR Board F/F (plastic)

&lt; 20

**Legend:**

The results are expressed in ppm (parts per million)  
The symbol < followed by a number indicates that the concentration of the lead is less than the detection limit expressed by that number.  
The element determined is:  
Pb - Lead

**Requirements:** The allowed maximum quantity of Lead is 500 mg/kg (0.05%)**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 63 (Lead)**Conclusion:** The results found **COMPLY** with the above requirements.



TEST REPORT: 21.97294a

dated 10 November 2021

**Metal Products - Lead content****Method:** CPSC-CH-E1001-08.3**Instrument:** Inductively Coupled Plasma - Optical Emission Spectroscopy (ICP-OES) - Mass Spectrometry (ICP-MS)

## Identification Parts

Pb

PIR Board F/F (metal)

&lt; 20

**Legend:**

The results are expressed in ppm (parts per million)  
The symbol < followed by a number indicates that the concentration of the lead is less than the detection limit expressed by that number.  
The element determined is:  
Pb - Lead

**Requirements:** The allowed maximum quantity of Lead is 500 mg/kg (0.05%)**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 63 (Lead)**Conclusion:** The results found **COMPLY** with the above requirements.

TEST REPORT: 21.97294a

dated 10 November 2021

**Content of Polycyclic Aromatic Hydrocarbons (PAH) Reach****Method:** AfPS GS 2019:01 PAK**Instrument:** Gascromatograph with Mass Detector

Identification Parts	Compound	Results
PIR Board F/F (plastic)	Benzo(a)pyrene	<0,2
	Benzo(e)pyrene	<0,2
	Benzo(a)anthracene	<0,2
	Chrysene	<0,2
	Benzo(b)fluoranthene	<0,2
	Benzo(j)fluoranthene	<0,2
	Benzo(k)fluoranthene	<0,2
	Dibenzo(a,h)anthracene	<0,2

**Legend:** The results are expressed in mg/kg.  
The symbol < followed by a number indicates that the concentration of the analyte is less than the detection limit expressed by that number.

**Requirements:** 1.0 mg/kg for each PAH listed**Reference:** Regulation (EC) n. 1907/2006 (REACH), Annex XVII, Point 50.5 (Aromatic Polycyclic Hydrocarbons)**Conclusion:** The results found **COMPLY** with the above requirements.

I I S G


**TEST REPORT: 21.97294b** dated **11/11/2021**

This section is an integral part of the TEST REPORT 21.97294

**DATES**

Test beginning: 2/11/2021  
Issue date: 11/11/2021

**APPLICANT**

IMPER ITALIA Spa


**SAMPLE DESCRIPTION**

PIR Board F/F

**Object : Determination of the presence of 219 SVHC (substances of very high concern) within the sample received. The 219 substances analysed are those identified by the European Chemical Agency (ECHA) and included in the "Candidate list" for authorisation under Regulation (EC) n. 1907/2006, REACH, as last updated on July 8<sup>th</sup>, 2021**

**CONCLUSION**

Based on the analysis performed there **isn't** evidence of the presence of SVHC (substances of very high concern, as published on July 8<sup>th</sup>, 2021) in concentration above the 0.1% by weight of the article<sup>9</sup> under evaluation.

Analysis have been performed on the basis of dossiers published by ECHA, realized in compliance with Annex XV of the Regulation EC n. 1907/2006.

Please note that the list of substances is constantly under evaluation by ECHA and, therefore, will be modified over time.

<sup>9</sup> In case of complex articles, the concentration of SVHC has been evaluated considering the weight of each single component that constitutes the complex article. and that is defined "Article", according to REACH. See Appendix I of this document.

TEST REPORT: **21.97294b**

dated 11/11/2021

IDENTIFICATION PARTS	
N.	Description
1	PIR Board F/F (plastic)

## TEST REPORT: 21.97294b

dated 11/11/2021

## Results details

The sample has been analysed performing tests according to the following techniques:

- Vis-UV Spectrophotometers
- Ion Chromatography (IC)
- Inductively coupled plasma mass spectrometry (ICP-MS)
- Gas chromatography-mass spectrometry (GC-MS)
- Liquid chromatography-mass spectrometry (LC-MS)

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	219-943-6	2580-56-5	< 0.01	< 0.01
[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3) [with $\geq 0.1\%$ of Michler's ketone (EC No. 202-027-5) or Michler's base (EC No. 202-959-2)]	208-953-6	548-62-9	< 0.01	< 0.01
[Phthalato(2-)]dioxotrilead	273-688-5	69011-06-9	< 0.01	< 0.01
1-vinylimidazole	214-012-0	1072-63-5	< 0.01	< 0.01
1,2,3-Trichloropropane	202-486-1	96-18-4	< 0.01	< 0.01
1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	276-158-1	71888-89-6	< 0.01	< 0.01
1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	271-084-6	68515-42-4	< 0.01	< 0.01
1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	284-032-2	84777-06-0	< 0.01	< 0.01
1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	203-977-3	112-49-2	< 0.01	< 0.01
1,2-dichloroethane	203-458-1	107-06-2	< 0.01	< 0.01
1,2-Diethoxyethane	211-076-1	629-14-1	< 0.01	< 0.01
1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	203-794-9	110-71-4	< 0.01	< 0.01
1,3,5-Tris(oxiran-2-ylmethyl)-1,3,5-triazine-2,4,6-trione (TGIC)	219-514-3	2451-62-9	< 0.01	< 0.01
1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione ( $\beta$ -TGIC)	423-400-0	59653-74-6	< 0.01	< 0.01
1,4-dioxane	204-661-8	123-91-1	<b>0.02</b>	< 0.01

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dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.1 <sup>6,9</sup> .0 <sup>2,13</sup> .0 <sup>5,10</sup> ]octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]	-	-	< 0.01	< 0.01
1-bromopropane (n-propyl bromide)	203-445-0	106-94-5	< 0.01	< 0.01
1-Methyl-2-pyrrolidone	212-828-1	872-50-4	< 0.01	< 0.01
1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one 3-benzylidene camphor; 3-BC	239-139-9	15087-24-8	< 0.01	< 0.01
2-methylimidazole	211-765-7	693-98-1	< 0.01	< 0.01
2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	404-360-3	119313-12-1	< 0.01	< 0.01
2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers	-	-	< 0.01	< 0.01
2,2-bis(bromomethyl)propane-1,3-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)	-	-	< 0.01	< 0.01
2,2'-dichloro-4,4'-methylenedianiline	202-918-9	101-14-4	< 0.01	< 0.01
2,4-Dinitrotoluene	204-450-0	121-14-2	< 0.01	< 0.01
2-Ethoxyethanol	203-804-1	110-80-5	< 0.01	< 0.01
2-Ethoxyethyl acetate	203-839-2	111-15-9	< 0.01	< 0.01
2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	400-600-6	71868-10-5	< 0.01	< 0.01
2-Methoxyaniline; o-Anisidine	201-963-1	90-04-0	< 0.01	< 0.01
2-Methoxyethanol	203-713-7	109-86-4	< 0.01	< 0.01
2-Methoxyethyl acetate	203-772-9	110-49-6	< 0.01	< 0.01
2,2-bis(4'-hydroxyphenyl)-4-methylpentane	401-720-1	6807-17-6	< 0.01	< 0.01
2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides (covering any of their individual isomers and combinations thereof)	-	-	< 0.01	< 0.01
3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	421-150-7	143860-04-2	< 0.01	< 0.01
4-tert-butylphenol	202-679-0	98-54-4	< 0.01	< 0.01
4-(1,1,3,3-tetramethylbutyl)phenol	205-426-2	140-66-9	< 0.01	< 0.01
4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated <sup>10</sup>	-	-	< 0.01	< 0.01
4,4'-Diaminodiphenylmethane	202-974-4	101-77-9	< 0.01	< 0.01
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	< 0.01	< 0.01

<sup>10</sup> Covering well-defined substances and UVCB substances, polymers and homologues

## TEST REPORT: 21.97294b

dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
4,4'-bis(dimethylamino)benzophenone (Michler's ketone)	202-027-5	90-94-8	< 0.01	< 0.01
4,4'-isopropylidenediphenol (bisphenol A; BPA)	201-245-8	80-05-7	< 0.01	< 0.01
4,4'-methylenedi-o-toluidine	212-658-8	838-88-0	< 0.01	< 0.01
4,4'-oxydianiline and its salts	202-977-0	101-80-4	< 0.01	< 0.01
4,4'-(1-methylpropylidene)bisphenol	201-025-1	77-40-7	< 0.01	< 0.01
4-Aminoazobenzene	200-453-6	60-09-3	< 0.01	< 0.01
4-heptylphenol, branched and linear	-	-	< 0.01	< 0.01
4-methyl-m-phenylenediamine (toluene-2,4-diamine)	202-453-1	95-80-7	< 0.01	< 0.01
4-Nonylphenol, branched and linear <sup>11</sup>	-	-	< 0.01	< 0.01
4-Nonylphenol, branched and linear ethoxylated <sup>12</sup>	-	-	< 0.01	< 0.01
5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	201-329-4	81-15-2	< 0.01	< 0.01
6-methoxy-m-toluidine (p-cresidine)	204-419-1	120-71-8	< 0.01	< 0.01
Acetic acid, lead salt, basic	257-175-3	51404-69-4	< 0.01	< 0.01
Acrylamide	201-173-7	79-06-1	< 0.01	< 0.01
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	287-476-5	85535-84-8	< 0.01	< 0.01
Aluminosilicate Refractory Ceramic Fibres (fibres covered by index number 650-017-008 and fulfilling certain conditions)	-	-	< 0.01	< 0.01
Ammonium dichromate	232-143-1	7789-09-5	< 0.01	< 0.01
Ammonium pentadecafluorooctanoate (APFO)	223-320-4	3825-26-1	< 0.01	< 0.01
Anthracene	204-371-1	120-12-7	< 0.01	< 0.01
Anthracene oil	292-602-7	90640-80-5	< 0.01	< 0.01
Anthracene oil, anthracene paste	292-603-2	90640-81-6	< 0.01	< 0.01
Anthracene oil, anthracene paste, anthracene fraction	295-275-9	91995-15-2	< 0.01	< 0.01
Anthracene oil, anthracene paste, distn. lights	295-278-5	91995-17-4	< 0.01	< 0.01
Anthracene oil, anthracene-low	292-604-8	90640-82-7	< 0.01	< 0.01
Arsenic acid	231-901-9	7778-39-4	< 0.01	< 0.01
Benz[a]anthracene	200-280-6	56-55-3	< 0.01	< 0.01
Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	209-008-0	552-30-7	< 0.01	< 0.01
Benzo[ghi]perylene	205-883-8	191-24-2	< 0.01	< 0.01
Benzo[k]fluoranthene	205-916-6	207-08-9	< 0.01	< 0.01
Benzyl butyl phthalate	201-622-7	85-68-7	< 0.01	< 0.01
Biphenyl-4-ylamine	202-177-1	92-67-1	< 0.01	< 0.01
Bis (2-ethyl(hexyl)phthalate) (DEHP)	204-211-0	117-81-7	< 0.01	< 0.01

<sup>11</sup> 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

<sup>12</sup> Substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof

## TEST REPORT: 21.97294b

dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
Bis(2-methoxyethyl) ether	203-924-4	111-96-6	< 0.01	< 0.01
Bis(2-(2-methoxyethoxy)ethyl) ether	205-594-7	143-24-8	< 0.01	< 0.01
Bis(2-methoxyethyl) phthalate	204-212-6	117-82-8	< 0.01	< 0.01
Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)	214-604-9	1163-19-5	< 0.01	< 0.01
Bis(tributyltin)oxide (TBTO)	200-268-0	56-35-9	< 0.01	< 0.01
Boric acid	233-139-2 234-343-4	10043-35-3 11113-50-1	< 0.01	< 0.01
Butyl 4-hydroxybenzoate	202-318-7	94-26-8	< 0.01	< 0.01
Cadmium	231-152-8	7440-43-9	< 0.01	< 0.01
Cadmium carbonate	208-168-9	513-78-0	< 0.01	< 0.01
Cadmium hydroxide	244-168-5	21041-95-2	< 0.01	< 0.01
Cadmium nitrate	233-710-6	10325-94-7	< 0.01	< 0.01
Cadmium oxide	215-146-2	1306-19-0	< 0.01	< 0.01
Calcium arsenate	231-904-5	7778-44-1	< 0.01	< 0.01
Cadmium sulphide	215-147-8	1306-23-6	< 0.01	< 0.01
Chromic acid Oligomers of chromic acid and dichromic acid Dichromic acid	231-801-5 - 236-881-5	7738-94-5 - 13530-68-2	< 0.01	< 0.01
Dicyclohexyl phthalate (DCHP)	201-545-9	84-61-7	< 0.01	< 0.01
Chromium trioxide	215-607-8	1333-82-0	< 0.01	< 0.01
Chrysene	205-923-4	218-01-9	< 0.01	< 0.01
Cobalt dichloride	231-589-4	7646-79-9	< 0.01	< 0.01
Cobalt(II) carbonate	208-169-4	513-79-1	< 0.01	< 0.01
Cobalt(II) diacetate	200-755-8	71-48-7	< 0.01	< 0.01
Cobalt(II) dinitrate	233-402-1	10141-05-6	< 0.01	< 0.01
Cobalt(II) sulphate	233-334-2	10124-43-3	< 0.01	< 0.01
Cyclohexane-1,2-dicarboxylic anhydride [1], cis-cyclohexane-1,2-dicarboxylic anhydride [2], trans-cyclohexane-1,2-dicarboxylic anhydride [3] <sup>13</sup>	201-604-9, 236-086-3, 238-009-9	85-42-7, 13149-00-3, 14166-21-3	< 0.01	< 0.01
Diarsenic pentaoxide	215-116-9	1303-28-2	< 0.01	< 0.01
Diarsenic trioxide	215-481-4	1327-53-3	< 0.01	< 0.01
Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))	204-650-8	123-77-3	< 0.01	< 0.01
Diboron trioxide	215-125-8	1303-86-2	< 0.01	< 0.01
Dibutyl phthalate	201-557-4	84-74-2	< 0.01	< 0.01
Dibutylbis(pentane-2,4-dionato-O,O')tin	245-152-0	22673-19-4	< 0.01	< 0.01
Dibutyltin dichloride (DBTC)	211-670-0	683-18-1	< 0.01	< 0.01
Dichromium tris(chromate)	246-356-2	24613-89-6	< 0.01	< 0.01
Diethyl sulphate	200-589-6	64-67-5	< 0.01	< 0.01
Dihexyl phthalate	201-559-5	84-75-3	< 0.01	< 0.01
Diisobutyl phthalate	201-553-2	84-69-5	< 0.01	< 0.01
Diisohexyl phthalate	276-090-2	71850-09-4	< 0.01	< 0.01
Diisopentylphthalate	210-088-4	605-50-5	< 0.01	< 0.01
Dimethyl sulphate	201-058-1	77-78-1	< 0.01	< 0.01
Dinoseb (6-sec-butyl-2,4-dinitrophenol)	201-861-7	88-85-7	< 0.01	< 0.01

<sup>13</sup> The individual cis- [2] and trans- [3] isomer substances and all possible combinations of the cis- and trans-isomers [1] are covered by this entry



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dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
Diocetyl tin 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	-	-	< 0.01	< 0.01
Dioxobis(stearato)trilead	235-702-8	12578-12-0	< 0.01	< 0.01
Dipentyl phthalate (DPP)	205-017-9	131-18-0	< 0.01	< 0.01
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	< 0.01	< 0.01
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	< 0.01	< 0.01
Disodium tetraborate, anhydrous	215-540-4	1303-96-4, 1330-43-4, 12179-04-3	< 0.01	< 0.01
Disodium octaborate	234-541-0	12008-41-2	< 0.01	< 0.01
Ethylenediamine (EDA)	203-468-6	107-15-3	< 0.01	< 0.01
Fatty acids, C16-18, lead salts	292-966-7	91031-62-8	< 0.01	< 0.01
Fluoranthene	205-912-4	206-44-0; 93951-69-0	< 0.01	< 0.01
Formaldehyde, oligomeric reaction products with aniline	500-036-1	25214-70-4	< 0.01	< 0.01
Formamide	200-842-0	75-12-7	< 0.01	< 0.01
Furan	203-727-3	110-00-9	< 0.01	< 0.01
Glutaral	203-856-5	111-30-8	< 0.01	< 0.01
Henicosafuoroundecanoic acid	218-165-4	2058-94-8	< 0.01	< 0.01
Heptacosafuorotetradecanoic acid	206-803-4	376-06-7	< 0.01	< 0.01
Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified	247-148-4, 221-695-9	25637-99-4, 3194-55-6 (134237-51-7, 134237-50-6, 134237-52-8)	< 0.01	< 0.01
Hexahydromethylphthalic anhydride [1], Hexahydro-4-methylphthalic anhydride [2], Hexahydro-1-methylphthalic anhydride [3], Hexahydro-3-methylphthalic anhydride [4] <sup>14</sup>	247-094-1, 243-072-0, 256-356-4, 260-566-1	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9	< 0.01	< 0.01
Hydrazine	206-114-9	302-01-2 7803-57-8	< 0.01	< 0.01
Imidazolidine-2-thione; (2-imidazoline-2-thiol)	202-506-9	96-45-7	< 0.01	< 0.01
Lead	231-100-4	7439-92-1	< 0.01	< 0.01
Lead bis(tetrafluoroborate)	237-486-0	13814-96-5	< 0.01	< 0.01
Lead chromate	231-846-0	7758-97-6	< 0.01	< 0.01
Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	235-759-9	12656-85-8	< 0.01	< 0.01
Lead cyanamidate	244-073-9	20837-86-9	< 0.01	< 0.01

<sup>14</sup> The individual isomers [2], [3] and [4] (including their cis- and trans- stereo isomeric forms) and all possible combinations of the isomers [1] are covered by this entry

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dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
Lead di(acetate)	206-104-4	301-04-2	< 0.01	< 0.01
Lead diazide, Lead azide	236-542-1	13424-46-9	< 0.01	< 0.01
Lead dinitrate	233-245-9	10099-74-8	< 0.01	< 0.01
Lead dipicrate	229-335-2	6477-64-1	< 0.01	< 0.01
Lead hydrogen arsenate	232-064-2	7784-40-9	< 0.01	< 0.01
Lead monoxide (lead oxide)	215-267-0	1317-36-8	< 0.01	< 0.01
Lead oxide sulfate	234-853-7	12036-76-9	< 0.01	< 0.01
Lead styphnate	239-290-0	15245-44-0	< 0.01	< 0.01
Lead sulfochromate yellow (C.I. Pigment Yellow 34)	215-693-7	1344-37-2	< 0.01	< 0.01
Lead titanium trioxide	235-038-9	12060-00-3	< 0.01	< 0.01
Lead titanium zirconium oxide	235-727-4	12626-81-2	< 0.01	< 0.01
Lead(II) bis(methanesulfonate)	401-750-5	17570-76-2	< 0.01	< 0.01
Medium-chain chlorinated paraffins (MCCP)	-	-	< 0.01	< 0.01
Methoxyacetic acid	210-894-6	625-45-6	< 0.01	< 0.01
Methyloxirane (Propylene oxide)	200-879-2	75-56-9	< 0.01	< 0.01
N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	202-959-2	101-61-1	< 0.01	< 0.01
N,N-dimethylacetamide	204-826-4	127-19-5	< 0.01	< 0.01
N,N-dimethylformamide	200-679-5	68-12-2	< 0.01	< 0.01
N-methylacetamide	201-182-6	79-16-3	< 0.01	< 0.01
N-pentyl-isopentylphthalate	-	776297-69-9	< 0.01	< 0.01
Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	206-400-3 - 221-470-5	335-76-2 3830-45-3 3108-42-7	< 0.01	< 0.01
o-aminoazotoluene	202-591-2	97-56-3	< 0.01	< 0.01
Octamethylcyclotetrasiloxane (D4)	209-136-7	556-67-2	< 0.01	< 0.01
Decamethylcyclopentasiloxane (D5)	208-764-9	541-02-6	< 0.01	< 0.01
Dodecamethylcyclohexasiloxane (D6)	208-762-8	540-97-6	< 0.01	< 0.01
Orange lead (lead tetroxide)	215-235-6	1314-41-6	< 0.01	< 0.01
o-Toluidine	202-429-0	95-53-4	< 0.01	< 0.01
Orthoboric acid, sodium salt	-	-	< 0.01	< 0.01
Phenol, alkylation products (mainly in para position) with C12-rich branched alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	-	-	< 0.01	< 0.01
p-(1,1-dimethylpropyl)phenol	201-280-9	80-46-6	< 0.01	< 0.01
Pentacosafuorotridecanoic acid	276-745-2	72629-94-8	< 0.01	< 0.01
Pentadecafluorooctanoic acid (PFOA)	206-397-9	335-67-1	< 0.01	< 0.01
Perfluorohexane-1-sulfonic acid and its salts (PFHxS)	-	-	< 0.01	< 0.01
Pentalead tetraoxide sulphate	235-067-7	12065-90-6	< 0.01	< 0.01
Pentazinc chromate octahydroxide	256-418-0	49663-84-5	< 0.01	< 0.01
Perfluorobutane sulfonic acid (PFBS) and its salts	-	-	< 0.01	< 0.01
Phenanthrene	201-581-5	85-01-8	< 0.01	< 0.01
Phenolphthalein	201-004-7	77-09-8	< 0.01	< 0.01
Pitch, coal tar, high temp.	266-028-2	65996-93-2	< 0.01	< 0.01
Potassium chromate	232-140-5	7789-00-6	< 0.01	< 0.01
Potassium dichromate	231-906-6	7778-50-9	< 0.01	< 0.01

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Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
Potassium hydroxyoctaoxodizincatedichromate	234-329-8	11103-86-9	< 0.01	< 0.01
Pyrene	204-927-3	129-00-0; 1718-52-1	< 0.01	< 0.01
Pyrochlore, antimony lead yellow	232-382-1	8012-00-8	< 0.01	< 0.01
Silicic acid, (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped <sup>15</sup>	272-271-5	68784-75-8	< 0.01	< 0.01
Silicic acid, lead salt	234-363-3	11120-22-2	< 0.01	< 0.01
Sodium chromate	231-889-5	7775-11-3	< 0.01	< 0.01
Sodium dichromate	234-190-3	7789-12-0, 10588-01-9	< 0.01	< 0.01
Strontium chromate	232-142-6	7789-06-2	< 0.01	< 0.01
Sulfurous acid, lead salt, dibasic	263-467-1	62229-08-7	< 0.01	< 0.01
Terphenyl hydrogenated	262-967-7	61788-32-7	< 0.01	< 0.01
Tetraboron disodium heptaoxide, hydrate	235-541-3	12267-73-1	< 0.01	< 0.01
Tetraethyllead	201-075-4	78-00-2	< 0.01	< 0.01
Tetralead trioxide sulphate	235-380-9	12202-17-4	< 0.01	< 0.01
Trichloroethylene	201-167-4	79-01-6	< 0.01	< 0.01
Tricosafuorododecanoic acid	206-203-2	307-55-1	< 0.01	< 0.01
Triethyl arsenate	427-700-2	15606-95-8	< 0.01	< 0.01
Trilead bis(carbonate)dihydroxide	215-290-6	1319-46-6	< 0.01	< 0.01
Trilead diarsenate	222-979-5	3687-31-8	< 0.01	< 0.01
Trilead dioxide phosphonate	235-252-2	12141-20-7	< 0.01	< 0.01
Tris(2-chloroethyl)phosphate	204-118-5	115-96-8	< 0.01	< 0.01
Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with ≥ 0.1% w/w of 4-nonylphenol, branched and linear (4-NP)	-	-	< 0.01	< 0.01
Trixylyl phosphate	246-677-8	25155-23-1	< 0.01	< 0.01
Zirconia Aluminosilicate Refractory Ceramic Fibres (fibres covered by index number 650-017-008 and fulfilling certain conditions)	-	-	< 0.01	< 0.01
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	< 0.01	< 0.01
Cadmium chloride	233-296-7	10108-64-2	< 0.01	< 0.01
1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	271-093-5	68515-50-4	< 0.01	< 0.01
Sodium peroxometaborate	231-556-4	7632-04-4	< 0.01	< 0.01
Sodium perborate; perboric acid, sodium salt	239-172-9; 234-390-0	-	< 0.01	< 0.01
Cadmium fluoride	232-222-0	7790-79-6	< 0.01	< 0.01
Cadmium sulphate	233-331-6	10124-36-4; 31119-53-6	< 0.01	< 0.01

<sup>15</sup> With lead (Pb) content above the applicable generic concentration limit for "toxicity for reproduction" Repr. 1A (CLP) or category 1 (DSD); the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008

## TEST REPORT: 21.97294b

dated 11/11/2021

Name of the substance	EC Number	CAS Number	Concentration (%)	Reporting limit (%)
2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	223-346-6	3846-71-7	< 0.01	< 0.01
2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	247-384-8	25973-55-1	< 0.01	< 0.01
2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	239-622-4	15571-58-1	< 0.01	< 0.01
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)	-	-	< 0.01	< 0.01
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]	-	-	< 0.01	< 0.01
1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	271-094-0 272-013-1	68515-51-5 68648-93-1	< 0.01	< 0.01
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]	-	-	< 0.01	< 0.01
Nitrobenzene	202-716-0	202-716-0	< 0.01	< 0.01
2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	223-383-8	3864-99-1	< 0.01	< 0.01
2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	253-037-1	36437-37-3	< 0.01	< 0.01
1,3-propanesultone	214-317-9	1120-71-4	< 0.01	< 0.01
Perfluorononan-1-oic-acid and its sodium and ammonium salts	206-801-3	375-95-1 21049-39-8 4149-60-4	< 0.01	< 0.01
Benzo[def]chrysene Benzo[a]pyrene	200-028-5	50-32-8	< 0.01	< 0.01

## Appendix I

Definition of article as contained in the Regulation (EC) n. 1907/2006 (REACH)

**Article:** means an object which during production is given a special shape, surface or design which determines its function to a greater degree than does its chemical composition

The determination of the content of SVHC in the articles has been carried out taking into account the interpretation contained in the ECHA "Guidance on requirements for substances in articles". This guideline is at the moment under updating in order to define what established by the European Court of Justice<sup>16</sup>. In agreement with the conclusions of the Court, the obligations related to the presence of SVHC in the articles shall be applied also to the components of complex

0 article and that are classified as "Article".

Even packaging, under REACH, is classified as an article.

Under Regulation (EC) n. 1907/2006, the identification of the presence of SVHC contained within article is fundamental for the identification of the following duties

### Notification:

Article 7.2 of REACH

Any producer or importer of articles shall notify the Agency, 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 one 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).

### Duty to communicate information on substances in articles:

Article 33.1 of REACH

Any supplier of an article containing a substance meeting the criteria in Article 57 and identified in accordance with Article 59(1) in a concentration above 0,1 % weight by weight (w/w) shall provide the recipient of the article with sufficient information, available to the supplier, to allow safe use of the article including, as a minimum, the name of that substance.

<sup>16</sup> Judgement of the Court of Justice of 10 September 2015 in case C-106/14

**Appendix II**

Definition of **SVHC** (Substances of very high concern):

- a) Substances meeting the criteria for classification as carcinogenic, mutagenic and toxic for reproduction of categories 1A and 1B ([CMR](#))
- b) Substances which are persistent, bioaccumulative and toxic in accordance with the criteria set out in Annex XIII of the Regulation (EC) n. 1907/2006 ([PBT](#))
- c) Substances which are very persistent and very bioaccumulative in accordance with the criteria set out in Annex XIII of the Regulation (EC) n. 1907/2006 ([vPvB](#))
- d) Substances — such as those having endocrine disrupting ([ED](#)) properties— for which there is scientific evidence of probable serious effects to human health or the environment which give rise to an equivalent level of concern to those of other substances listed in points (a) to (c)

... END OF REPORT...