



# Standards for Hazardous Substances Contained in Products

## Material for Distribution to Suppliers

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**The azbil Group**

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## **1 Purpose**

Reduction of hazardous chemical substances in products

To prevent environmental contamination from hazardous chemical substances contained in our products, the azbil Group endeavors to reduce these substances in targeted products. To support our efforts, we have established “Guidelines for the Construction of Chemical Substance Management Systems,” and we ask for the understanding and cooperation of our business partners in striving to reduce hazardous chemical substances contained in targeted products throughout the supply chain.

This standard defines the hazardous chemical substances whose inclusion in products is restricted as part of the above initiative. Please also forward this document to upstream suppliers in the azbil Group’s supply chain.

## **2 Scope**

This standard applies to azbil Group products and purchased products, parts, materials, and packaging materials that make up those products. We will inform our suppliers of applicable purchased products. Regarding packaging materials, if it is clear that they will be used for packing, protecting, and delivering purchased items and will be discarded at azbil Group production bases, this standard does not apply to them.

## **3 Definitions of Terms**

Terms used in this standard are as follows.

### 1) Management system for restricted substances in product (CMS)

In the azbil Group, the system for managing chemical substances contained in products is called the Chemical-substance Management System (CMS).

### 2) Restricted substances

Substances whose use in products is already restricted by regulations for chemical substances contained in products, substances that will be restricted in the near future, and substances whose use is voluntarily restricted by the azbil Group are “restricted substances.” Relevant regulations on chemical substances contained in products are those for chemical substances whose inclusion in electrical and electronic products is restricted in Japan and/or overseas.

3) Restricted substance layer

Restricted substances to be managed differ according to the market requirements for azbil Group products. Azbil defines these restricted substances in a hierarchical structure. In this standard, control categories are called “Restricted substance layer.”

The relationship between restricted substances and restricted substance layer is shown in Table 3.1.

When we inform our suppliers of a purchased item to be managed, we will also inform them of the applicable restricted substance layer.

- A) Restricted substance layer 1 < Instruction symbol: Layer 1>
  - Restricted substances for products used in industrial applications
- B) Restricted substance layer 2 (RoHS restricted 10 substances) <Instruction symbol: Layer 2(RoHS10)>
  - Ten restricted substances in compliance with the EU RoHS Directive
- C) Restricted substance layer 3 <Instruction symbol: Layer 3>
  - Restricted substances for customer use

Restricted substances to be managed for purchased items differ depending on the products for which the purchased items are used.

For purchased products that require compliance with substance restrictions for industrial-use products, please comply with the restrictions defined for restricted substance Layer 1.

For purchased products that require compliance with the EU RoHS Directive, it is also necessary to comply with substance restrictions for industrial use, so please comply with the restricted substance for Layer 1 and 2 (RoHS 10).

For purchased products that require compliance with the substance restrictions for customer use, it is also necessary to comply with industrial-use restrictions and the EU RoHS Directive, so please comply with the restricted substance for Layer 1, Layer 2 (RoHS 10) and Layer 3.

Figure 3.1 shows the restricted substance layer required for purchased items.

Compliance required for purchased items	Restricted substance layer (Instruction symbol) for purchased items		
Restricted substances for products used in industrial applications	Layer 1		
In addition to the above, compliance with the EU RoHS Directive	Layer 1	Layer 2 (RoHS10)	
In addition to the above, compliance with substance restrictions for customer use	Layer 1	Layer 2 (RoHS10)	Layer 3

Table 3.1. Restricted substance layer for purchased items

#### 4) azbil Group Regulation

This company standard defines prohibitions on intentional use, or the maximum percentage of restricted substances that may be included.

##### A) Prohibitions on intentional use

Prohibition on intentional use in this standard means the following.

- Prohibition on the intentional use of chemical substances during the manufacture of purchased products
- Prohibition on the purchased product containing the substance as a by-product at the time of manufacture

##### B) Concentration (Wt%)

Unless otherwise stated, the concentrations shown in this standard are the percentage of the restricted substance with a mass of homogeneous material as the denominator. A homogeneous material is a material that cannot be mechanically decomposed into different materials.

The following are examples of cases where management of the concentration is needed.

- The maximum concentration when the chemical substance is intentionally used in the manufacture of a purchased product
- The maximum concentration of the chemical substance contained in natural materials that are not intentionally used in the purchased product, but that cannot be removed by technological means during the material refining process.
- The maximum concentration of a chemical substance that is not intentionally used in the purchased product and is managed to prevent contamination of the product during manufacturing.

##### C) When prohibition on intentional use and maximum concentration are both indicated

In this standard, when both prohibition on intentional use and a restriction on concentration are indicated, the maximum concentration is the threshold the maximum allowed concentration when chemical substances contained in natural materials cannot be removed by technological means during the material refining process.

#### 5) Exemptions

Exemptions specify particular uses, substances, etc., that are not included in the scope of restrictions stated in this standard.

#### 6) IEC62474

One of the international standards published by the International Electrotechnical Commission (IEC). A document that specifies material declarations related to products and the electricity/electronic industry. Substances and substance groups to be declared are published in the Declarable Substances List (DSL) managed in the IEC 62474 database (IEC 62474 DB). For details on the IEC 62474 database, see the URL below.

<http://std.iec.ch/iec62474>

#### 7) chemSHERPA

The general name for standardized formats that can be used throughout a supply chain to properly manage the chemical substances contained in products and to comply continuously with expanding regulations. For details, see the URL below.

<https://chemsherpa.net/>

## 4 Controlled chemical substances

### 4.1 Restricted substances

Table 4.1 Restricted substances (Substance Groups)

Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group	azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
Layer 1	I 1	00046	Polychlorinated Biphenyls (PCBs) and specific substitutes	Prohibitions on intentional use	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [USA] Toxic Substances Control Act (TSCA); [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, fire retardants, dielectric sealants
Layer 1	I 2	00047	Polychlorinated terphenyls (PCTs)	Not more than 0.005wt%(50ppm) in material	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, fire retardants, coatings for electrical wire and cable, dielectric sealants
Layer 1	I 3	00048	Polychlorinated naphthalenes	Prohibitions on intentional use	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Lubricant, paint, stabilizer (electric characteristic, flame-resistant, water-resistant) insulator, flame retardant
Layer 1	I 4	00052	Short chain chlorinated paraffins (SCCP, C10-13)	Prohibitions on intentional use	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Plasticizer for PVC, flame retardant
Layer 1	I 7 I 8	00054 00055	Bis(tributyltin) oxide (TBTO) Tri-substituted organostannic compounds	Prohibitions on intentional use Tin in article should not be more than 0.1% by weight (1,000 ppm)	[Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII.	Bis(tributyltin) oxide (TBTO) Antiseptic, antifungal agent, paint, pigment, antistaining, refrigerant, foaming agent, extinguishant, solvent cleaner Tri-substituted organostannic compounds Stabilizer, antioxidant, antibacterial and antifungal agents, antifoulant, antiseptic, anti-fungal agent, paint, pigment, antistaining
Layer 1	I 9	00003	Asbestos	Prohibitions on intentional use	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [USA] Toxic Substances Control Act (TSCA); [Japan] Industrial Safety and Health Act	Insulator, filler, pigment, paint, talc
Layer 1	I11 I12	00032	Ozone Depleting Substances (CFC, Halon, HBFC, HCFC, etc)	Prohibitions on intentional use	Montreal Protocol; [Japan] Law concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures;	Refrigerant, foaming agent, extinguishant, solvent cleaner
Layer 1	I44	00124 00125	Perfluorooctane sulfonates (PFOS)	Prohibitions on intentional use	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Antistatic agent for films and plastics

Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group	azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
Layer 1	145	00035	2-benzotriazol-2-yl-4,6-di-tert-butyl phenol (UV-320) (CAS No. 3846-71-7)	Prohibitions on intentional use	[Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	UV-stabilizer in adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers
Layer 1	147	00016	Dimethylfumarate (DMF)	Not more than 0.00001wt%(0.1 ppm) in a article	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Biocide, mold prevention treatment of electronic leather seats, including recliners, massage chairs
Layer 1	152	00020	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified:	Prohibitions on intentional use	[Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004	Flame retardant; mainly used for expanded polystyrene and some types of fiber
Layer 1	153	00160 00161	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	Prohibitions on intentional use PFOA and individual salts: not more than 25 ppb Esters of PFOA: not more than 1,000 ppb	[Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.; [EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004	Textiles, photographic coatings applied to films, paper or printing plates and other coated consumer products.
Layer 1	161	~	Four heavy metals Cadmium, Lead, Chromium(VI), Mercury and their Compounds	Packaging  Total wt concentration of Cd/Pb/Hg/Cr6+: not more than 100 ppm	[EU] Directive on Packaging and Packaging Waste	Refer I15 to I18
Layer 1	160	00036	Four phthalates DEHP BBP DBP DIBP	(1) Packaging (2) Accessories (3) Products not covered by RoHS directive  Less than 1,000 ppm of four phthalates combined contained in plasticized materials <Exemptions> (a) within the scope of RoHS (b) articles exclusively for industrial use, or for use exclusively in the open air, provided that no plasticised material comes into prolonged contact with human skin.	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Refer I56 to I59
Layer 1	162	00182	Long chain perfluorocarboxylic acids (C9-C14PFCAs)	Not more than 0.0000025 mass%(25ppb) of article	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Greases, textiles and other coated products, and emulsifiers used for manufacturing the
Layer 1	163	00183	C9-C14 PFCAs related substances	Not more than 0.000026 mass%(260ppb) of article	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Fluoropolymers and fluoroelastomers

Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group	azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications	
Layer 1	I13	00044	Polybrominated biphenyls (PBB)	Prohibitions on intentional use Not more than 1,000 ppm in homogeneous materials	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [EU] RoHS Directive 2011/65/EU and its amendments; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Flame retardant	
Layer 1	I14	00045	Polybrominated diphenyl ethers (PBDE)	Prohibitions on intentional use Not more than 1,000 ppm in homogeneous materials	[EU] Persistent Organic Pollutants (POPs) Regulation (EC) No.850/2004; [EU] RoHS Directive 2011/65/EU and its amendments; [Japan] Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Flame retardant	
Layer 1	I15	00010 00011	Cadmium/Cadmium compounds	Portable Battery or accumulators	Not more than 20 ppm (w/w)	[EU] Battery Directive 2006/66/EC;	Pigments, anti-corrosion surface treatments, optical glass, heat stabilizers, plating, fluorescent materials, electrodes, low melting solders, electric contacts, zinc plating, photoelectric applications, phosphor coatings, bearing alloys, relay contact
				Other uses	Not more than 100 ppm in homogeneous materials <Exemptions>Refer table 4.3	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII; [EU] RoHS Directive 2011/65/EU and its amendments;	
Layer 1	I18	00029 00030 00132	Mercury/Mercury Compounds	Battery	Less than 5 ppm	[EU] Battery Directive 2006/66/EC;	Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment
				Other uses	Not more than 1,000 ppm in homogeneous materials <Exemptions>Refer table 4.3	[EU] RoHS Directive 2011/65/EU and its amendments; [Japan] Act on Preventing Environmental Pollution of Mercury; [EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII;	
Layer 2 (RoHS10)	I16	00021 00022 00023 00024 00025	Lead/Lead Compounds	Not more than 1,000 ppm in homogeneous materials <Exemptions>Refer table 4.3	[EU] RoHS Directive 2011/65/EU and its amendments;	Rubber hardener, pigment, paint, lubricant, plastic stabilizer, materials for battery, free-machining alloy, free-cutting steels, optical materials, X-ray shielding in CRT glass, electrical solder material, mechanical solder materials, curing agent, vulcanizing agent, ferroelectrics, resin stabilizer, plating, metal alloy, resin additives	
Layer 2 (RoHS10)	I17	00012	Chromium (VI) Compounds	Not more than 1,000 ppm in homogeneous materials <Exemptions>Refer table 4.3	[EU] RoHS Directive 2011/65/EU and its amendments;	Pigment, paint, ink, catalyst, plating, anticorrosion surface treatment, dye, paint dryer, surface treatment	
Layer 2 (RoHS10)	I56	00038	Bis (2-ethylhexyl)phthalate (DEHP)	Not more than 1,000 ppm in homogeneous materials	[EU] RoHS Directive 2011/65/EU and its amendments	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	
Layer 2 (RoHS10)	I57	00039	Dibutyl phthalate (DBP)	Not more than 1,000 ppm in homogeneous materials	[EU] RoHS Directive 2011/65/EU and its amendments	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	
Layer 2 (RoHS10)	I58	00040	Benzyl butyl phthalate (BBP)	Not more than 1,000 ppm in homogeneous materials	[EU] RoHS Directive 2011/65/EU and its amendments	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	
Layer 2 (RoHS10)	I59	00041	Diisobutyl phthalate (DIBP)	Not more than 1,000 ppm in homogeneous materials	[EU] RoHS Directive 2011/65/EU and its amendments	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	

RoHS restricted 10 substances



Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group	azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications	
Layer 3	150	00014	Dibutyltin (DBT) compounds	Products for the general public	Tin should not be more than 0.1 % by weight (1000 ppm) in homogeneous materials	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin
Layer 3	151	00015	Diocetyl tin (DOT) compounds	Products for the general public that can be categorized in any of the following: (a) Textile and leather articles intended to come into contact with the skin, or (b) childcare articles, or (c) two-component room temperature vulcanization molding kits (RTV-2 molding kits)	Tin should not be more than 0.1 % by weight (1000 ppm) in homogeneous materials	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin
Layer 3	154	00108 00109 00110 00111 00112 00113 00114 00115	Polycyclic aromatic hydrocarbons (PAHs)	Rubber or plastic components which come in contact with human skin or the oral cavity directly, either for a long time or short period of time.	Any of the banned PAH contents not exceeding 1 ppm	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	Impurities in carbon black, which is used as coloring agent in plastics and softener in rubbers

## 4.2 Substances that require information provision

Substances that require information provision pursuant to Article 33 of the EU REACH Regulation are substances of very high concern (SVHC), as well as substances and substance groups listed in the Declarable Substances List in the IEC 62474 database.

A substance that requires information provision may be included in products, but if its concentration exceeds the reporting threshold set by IEC 62474, or if it is below the reporting threshold but is used intentionally or is included as a by-product, it must be reported.

Table 4.2 Substances that require information provision

Survey target category	Substances list
Candidate list of Substances of Very High Concern (SVHC)	Refer ECHA website <a href="https://echa.europa.eu/candidate-list-table">https://echa.europa.eu/candidate-list-table</a>
IEC62474 DB Declarable substances list (DSL)	Refer IEC 62474 DB website <a href="http://std.iec.ch/iec62474">http://std.iec.ch/iec62474</a>

### 4.3 RoHS Exemptions

The exempted items listed above are based on EU RoHS Directive 2011/65/EU ANNEX III. Revised provisions for the RoHS Directive will have priority on the present regulations.

Table 4.3 Applications exempted from the restriction by RoHS

Substance name	No.	IEC62474 Exemptions ID	Description (Exemption Description)	Expiry Date	Scope and dates of applicability	Product Categories
Mercury	1(f)-I	00115-A-00	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg	2027-02-24	5 mg may be used per burner	1 to 11
Mercury	1(f)-II	00116-A-00	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): For special purposes: 5 mg	2025-02-24	5 mg may be used per burner	1 to 11
Mercury	1(g)	00007-A-01	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner): For general lighting purposes < 30 W with a lifetime equal or above 20,000 h: 3.5 mg	2023-08-24	3.5 mg may be used per burner	1 to 11
Mercury	2(a)(2)	00009-A-03	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter $\geq 9$ mm and $\leq 17$ mm (e.g. T5): 3 mg	2023-08-24	3 mg may be used per lamp	1 to 11
Mercury	2(a)(3)	00010-A-03	Mercury in double-capped linear fluorescent lamps for generation lighting purposes not exceeding (per lamp): Tri-band phosphor with normal lifetime and a tube diameter $> 17$ mm and $\leq 28$ mm (e.g. T8): 3.5 mg	2023-08-24	3.5 mg may be used per lamp	1 to 11
Mercury	2(b)(3)	00015-A-04	Mercury in other fluorescent lamps not exceeding (per lamp): Non-linear tri-band phosphor lamps with tube diameter $> 17$ mm (e.g. T9): 10 mg	2025-02-24	10 mg may be used per lamp from 25 February 2023 until 24 February 2025	1 to 11
Mercury	2(b)(4)-I	00118-A-00	Mercury in other fluorescent lamps not exceeding (per lamp): Lamps for other general lighting and special purposes (e.g. induction lamps): 15 mg	2025-02-24	15 mg may be used per lamp	1 to 11
Mercury	2(b)(4)-II	00119-A-00	Mercury in other fluorescent lamps not exceeding (per lamp): Lamps emitting mainly light in the ultraviolet spectrum: 15 mg	2027-02-24	15 mg may be used per lamp	1 to 11
Mercury	2(b)(4)-III	00120-A-00	Mercury in other fluorescent lamps not exceeding (per lamp): Emergency lamps: 15 mg	2027-02-24	15 mg may be used per lamp	1 to 11
Mercury	3(a)	00017-A-03	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes used in EEE placed on the market before 24 February 2022 not exceeding (per lamp): Short length ( $\leq 500$ mm): 3.5 mg	2025-02-24	3.5 mg may be used per lamp	1 to 11
Mercury	3(b)	00018-A-03	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes used in EEE placed on the market before 24 February 2022 not exceeding (per lamp): Medium length ( $> 500$ mm and $\leq 1,500$ mm): 5 mg	2025-02-24	5 mg may be used per lamp	1 to 11
Mercury	3(c)	00019-A-03	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes used in EEE placed on the market before 24 February 2022 not exceeding (per lamp): Long length ( $> 1,500$ mm): 13 mg	2025-02-24	13 mg may be used per lamp	1 to 11
Mercury	4(a)-I	00114-A-03	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lamp-spectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp	2027-02-24	15 mg may be used per lamp	1 to 11
Mercury	4(b)	00117-A-00	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 80$ ; $P \leq 105$ W: 16 mg may be used per burner	2027-02-24	16 mg may be used per burner	1 to 11
Mercury	4(c)-I	00024-A-03	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P \leq 155$ W: 20 mg	2027-02-24	20 mg may be used per burner after 30 September 2022	1 to 11
Mercury	4(c)-II	00025-A-03	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $155$ W $< P \leq 405$ W: 25 mg	2027-02-24	25 mg may be used per burner after 30 September 2022	1 to 11
Mercury	4(c)-III	00026-A-03	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): $P > 405$ W: 25 mg	2027-02-24	25 mg may be used per burner after 30 September 2022	1 to 11
Mercury	4(e)	00028-A-01	Mercury in metal halide lamps (MH)	2027-02-24		1 to 11
Mercury	4(f)-I	00110-A-00	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	2025-02-24		1 to 11
Mercury	4(f)-II	00111-A-00	Mercury in high pressure mercury vapour lamps used in projectors where an output $\geq 2000$ lumen ANSI is required	2027-02-24		1 to 11
Mercury	4(f)-III	00112-A-00	Mercury in high pressure sodium vapour lamps used for horticulture lighting	2027-02-24		1 to 11
Mercury	4(f)-IV	00113-A-00	Mercury in lamps emitting light in the ultraviolet spectrum	2027-02-24		1 to 11
Lead	5(a)	00031-A-00	Lead in glass of cathode ray tubes	2024-07-21		1 to 11
Lead	5(b)	00032-A-00	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	-		1 to 11
Lead	6(a)	00033-B-00	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0.35 % lead by weight	2024-07-21	Expires on: - 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; - 21 July 2023 for category 8 in vitro diagnostic medical devices; - 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	8 to 11 (excluding 10)
Lead	6(a)-I	00034-A-00	Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight and in batch hot dip galvanised steel components containing up to 0.2% lead by weight	-	Expires on 21 July 2021 for categories 1-7 and 10.	1 to 7 and 10
Lead	6(b)	00036-B-00	Lead as an alloying element in aluminium containing up to 0.4 % lead by weight	2024-07-21	Expires on: - 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, - 21 July 2023 for category 8 in vitro diagnostic medical devices, - 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	8 to 11 (excluding 10)
Lead	6(b)-I	00037-A-00	Lead as an alloying element in aluminium containing up to 0.4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	-	Expires on 21 July 2021 for categories 1-7 and 10.	1 to 7 and 10
Lead	6(b)-II	00038-A-00	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0.4 % by weight	-	Expires on 18 May 2021 for categories 1-7 and 10.	1 to 7 and 10
Lead	6(c)	00040-B-00	Copper alloy containing up to 4 % lead by weight	2024-07-21	Expires on: - 21 July 2021 for categories 1-7 and 10, - 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments, - 21 July 2023 for category 8 in vitro diagnostic medical devices, - 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Lead	7(a)	00042-B-00	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	2024-07-21	Applies to categories 1-7 and 10 (except applications covered by point 24 of this Annex) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	1 to 11

Substance name	No.	IEC62474 Exemptions ID	Description (Exemption Description)	Expiry Date	Scope and dates of applicability	Product Categories
Lead	7(c)-I	00045-B-00	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	2024-07-21	Applies to categories 1-7 and 10 (except applications covered under point 34) and expires on 21 July 2021. For categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments expires on 21 July 2021. For category 8 in vitro diagnostic medical devices expires on 21 July 2023. For category 9 industrial monitoring and control instruments, and for category 11 expires on 21 July 2024.	1 to 11
Lead	7(c)-II	00047-B-00	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	2024-07-21	Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex. Expires on: — 21 July 2021 for categories 1-7 and 10; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Lead	7(c)-IV	00049-B-00	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	2024-07-21	Expires on:—21 July 2021 for categories 1-7 and 10;—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Cadmium	8(b)	00051-B-00	Cadmium and its compounds in electrical contacts	2024-07-21	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	8 to 11 (excluding 10)
Cadmium	8(b)-I	00098-A-00	Cadmium and its compounds in electrical contacts used in:—circuit breakers,—thermal sensing controls,—thermal motor protectors (excluding hermetic thermal motor protectors),—AC switches rated at: —6 A and more at 250 V AC and more, or —12 A and more at 125 V AC and more,—DC switches rated at 20 A and more at 18 V DC and more, and—switches for use at voltage supply frequency $\geq$ 200 Hz.	-	Applies to categories 1 to 7 and 10 and expires on 21 July 2021	1 to 7 and 10
Hexavalent Chromium	9	00052-B-00	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0.75 % by weight in the cooling solution	2024-07-21	Applies to categories 8, 9 and 11 and expires on:—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments,—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11	8,9 and 11
Hexavalent Chromium	9(a)-II	00108-A-00	Up to 0.75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: — designed to operate fully or partly with electrical heater, having an average utilised power input $\geq$ 75 W at constant running conditions, — designed to fully operate with non-electrical heater	-	Applies to categories 1-7 and 10 and expires on 21 July 2021	1-7 and 10
Lead	9(b)	00053-B-00	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	2024-07-21	Applies to categories 8, 9 and 11; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices, —21 July 2024 for category 9 industrial monitoring and control instruments and for category 11, —21 July 2021 for other subcategories of categories 8 and 9.	8 to 11 (excluding 10)
Lead	13(a)	00059-B-00	Lead in white glasses used for optical applications	2024-07-21	Applies to all categories; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; — 21 July 2021 for all other categories and subcategories	1 to 11
Cadmium, Lead	13(b)	00064-B-00	Cadmium and lead in filter glasses and glasses used for reflectance standards	2024-07-21	Applies to categories 8, 9 and 11; expires on: — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments and for category 11; — 21 July 2021 for other subcategories of categories 8 and 9	8 to 11 (excluding 10)
Lead	13(b)-I	00066-A-00	Lead in ion coloured optical filter glass types	-	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	1 to 7 and 10
Cadmium	13(b)-II	00067-A-00	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	-	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	1 to 7 and 10
Cadmium, Lead	13(b)-III	00068-A-00	Cadmium and lead in glazes used for reflectance standards	-	Applies to categories 1 to 7 and 10; expires on 21 July 2021 for categories 1 to 7 and 10	1 to 7 and 10
Lead	15	00070-B-00	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	2024-07-21	Applies to categories 8, 9 and 11 and expires on:—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	8 to 11 (excluding 10)
Lead	15(a)	00099-A-00	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: — a semiconductor technology node of 90 nm or larger; — a single die of 300 mm <sup>2</sup> or larger in any semiconductor technology node; — stacked die packages with die of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger.	-	Applies to categories 1 to 7 and 10 and expires on 21 July 2021.	1 to 7 and 10
Lead	17	00072-A-00	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	2024-07-21		1 to 11
Lead	18(b)	00074-B-00	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi2O5:Pb)	2024-07-21	Expires on:—21 July 2021 for categories 1-7 and 10;—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11

Substance name	No.	IEC62474 Exemptions ID	Description (Exemption Description)	Expiry Date	Scope and dates of applicability	Product Categories
Lead	18(b)-1	00100-A-00	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment	-	Applies to categories 5 and 8, excluding applications covered by entry 34 of Annex IV, and expires on 21 July 2021.	5 and 8
Lead; Cadmium	21	00077-B-00	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	2024-07-21	Applies to categories 8, 9 and 11 and expires on: — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	8 to 11 (excluding 10)
Lead	24	00079-B-00	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	2024-07-21	Expires on:— 21 July 2021 for categories 1-7 and 10;— 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices;— 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Lead	25	00081-A-00	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	2024-07-21		1 to 11
Lead	29	00084-B-00	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC (*1)(*1) Council Directive 69/493/EEC of 15 December 1969 on the approximation of the laws of the Member States relating to crystal glass (OJ L 326, 29.12.1969, p. 36).	2024-07-21	Expires on:—21 July 2021 for categories 1-7 and 10;—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Cadmium	30	00085-A-00	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	2024-07-21		1 to 11
Lead	31	00086-A-00	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	2024-07-21		1 to 11
Lead	32	00087-B-00	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	2024-07-21	Expires on:—21 July 2021 for categories 1-7 and 10;—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Lead	33	00088-A-00	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	2024-07-21		1 to 11
Lead	34	00089-B-00	Lead in cermet-based trimmer potentiometer elements	2024-07-21	Applies to all categories; expires on:— 21 July 2021 for categories 1-7 and 10;— 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;— 21 July 2023 for category 8 in vitro diagnostic medical devices;— 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Lead	37	00092-B-00	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	2024-07-21	Expires on:—21 July 2021 for categories 1-7 and 10;—21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;—21 July 2023 for category 8 in vitro diagnostic medical devices;—21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.	1 to 11
Cadmium	38	00093-A-00	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	2024-07-21		1 to 11
Cadmium	39(a)	00095-A-00	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0.2 µg Cd per mm <sup>2</sup> of display screen area)	-	Expires for all categories on [two years after the publication of the Delegated Directive in the Official Journal].	1 to 11
Lead	41	00097-B-00	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of handheld combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council*)	2024-07-21	Applies to all categories and expires on: — 31 March 2022 for categories 1 to 7, 10 and 11; — 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments; — 21 July 2023 for category 8 in vitro diagnostic medical devices; — 21 July 2024 for category 9 industrial monitoring and control instruments	1 to 11
Lead	42	00104-A-00	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment:—with engine total displacement ≥ 15 litres or —with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.	2024-07-21	Applies to category 11, excluding applications covered by entry 6(c) of this Annex.Expires on 21 July 2024.	11 other EEE
Bis (2-ethylhexyl)phthalate (DEHP)	43	00105-A-00	Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "prolonged contact with human skin" means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.	2024-07-21	Applies to category 11 and expires on 21 July 2024.	11
Lead	44	00106-A-00	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council (*), installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users	2024-07-21	Applies to category 11 and expires on 21 July 2024.	11
Lead, Hexavalent chromium	45	00109-A-00	Lead diazide, lead styphnate, lead dipicramate, orange lead (lead tetroxide), lead dioxide in electric and electronic initiators of explosives for civil (professional) use and barium chromate in long time pyrotechnic delay charges of electric initiators of explosives for civil (professional) use	2026-04-20	Applies to category 11 and expires on 20 April 2026	11 other EEE

## **5 Survey of chemical substances contained in purchased products**

### **5.1 About the survey**

We investigate the chemical substances contained in purchased products such as products, parts, materials, and packaging materials that make up Azbil products, and check whether they comply with the restrictions set by the azbil Group. For this reason, we will request a survey using a questionnaire that we will specify.

Upon receiving a survey request, please check the information on the environmental impact of the substances contained in the products we purchase, and send us a reply.

Based on suppliers' replies, we purchase items that meet the restrictions set by the azbil Group.

### **5.2 Questionnaire**

The contents of the questionnaire are as follows.

- ① Survey data on chemical substances contained in products (in files chemSHERPA-AI or chemSHERPA-CI)

Contents of the chemSHERPA-AI file are as follows.

- Information of compliance assessment: required
- information of composition: required

Contents of the chemSHERPA-CI file are as follows.

- information of composition: required

Additionally, it is necessary to follow the “Rules on the Use of Information on Chemicals in Products Under the chemSHERPA.”

For details, see the URL below.

<https://chemsherpa.net/>

- ② Certificate of non-use: “Declaration of Non-use of Chemical Substances in azbil Group Products (Including Packaging Materials)”
- ③ Other

Please note that the survey may also be conducted using a form requested by an azbil Group customer or a government agency.

### **5.3 Expiration date of the questionnaire**

The questionnaire is valid from the time it is sent to us until the purchased product is discontinued. However, if a new restricted substance is added, or if a substance that requires information provision is added, the questionnaire will be updated for re-investigation.

### **5.4 Changes**

Regarding a purchased product, if there is a design change or process change, please provide the information to us in advance in the format specified by our purchasing department. If there is a possibility that the results of a survey on included chemical substances may change, we will request another survey using the questionnaire.

## 6 Examples of restricted substances and substance groups

Examples of restricted substances defined in Section 4.1 are shown below, organized by chemical substance group.

Table 6.1 Reference substances list of "Restricted Substances"

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASnumber	CommonSynonyms
11	00046	Polychlorinated Biphenyls (PCBs) and specific substitutes	R00321	Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3	
			R00322	Monomethyl-tetrachloro-diphenyl methane	76253-60-6	Ugilec 141
			R00323	Monomethyl-dichloro-diphenyl methane	81161-70-8	Ugilec 121, Ugilec 21
			R00324	Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8	
12	00047	Polychlorinated terphenyls (PCTs)	R00325	Polychlorinated Terphenyls (PCT) (all isomers and congeners)	61788-33-8	
13	00048	Polychlorinated naphthalenes	R00326	Naphthalene, chloro derivatives	70776-03-3	
			R00389	1-Chloronaphthalene	90-13-1	
			R00390	2-Chloronaphthalene	91-58-7	
			R00391	1,5-Dichloronaphthalene	1825-30-5	
			R00392	1,4-Dichloronaphthalene	1825-31-6	
			R00393	1,2-Dichloronaphthalene	2050-69-3	
			R00394	1,6-Dichloronaphthalene	2050-72-8	
			R00395	1,7-Dichloronaphthalene	2050-73-9	
			R00396	1,8-Dichloronaphthalene	2050-74-0	
			R00397	2,3-Dichloronaphthalene	2050-75-1	
			R00398	2,6-Dichloronaphthalene	2065-70-5	
			R00399	1,3-Dichloronaphthalene	2198-75-6	
			R00400	2,7-Dichloronaphthalene	2198-77-8	
			R00401	Chloronaphthalene	25586-43-0	
			R00402	Dichloronaphthalene	28699-88-9	
			R00403	Pentachloronaphthalene	1321-64-8	
			R00404	Trichloronaphthalene	1321-65-9	
			R00405	Hexachloronaphthalene	1335-87-1	
			R00406	Tetrachloronaphthalene	1335-88-2	
			R00407	Perchloronaphthalene	2234-13-1	
			R00408	1,4,6-Trichloronaphthalene	2437-54-9	
			R00409	1,4,5-Trichloronaphthalene	2437-55-0	
			R00410	1,4,5,8-Tetrachloronaphthalene	3432-57-3	
			R00411	1,2,4,8-Tetrachloronaphthalene	6529-87-9	
			R00412	1,2,4,5-Tetrachloronaphthalene	6733-54-6	
			R00413	1,2,3,6,7,8-Hexachloronaphthalene	17062-87-2	
			R00414	1,2,3,4-Tetrachloronaphthalene	20020-02-4	
			R00415	1,3,5,8-Tetrachloronaphthalene	31604-28-1	
			R00416	Heptachloronaphthalene	32241-08-0	
			R00417	2,3,6,7-Tetrachloronaphthalene	34588-40-4	
			R00418	1,2,4-Trichloronaphthalene	50402-51-2	
			R00419	1,2,3-Trichloronaphthalene	50402-52-3	
			R00420	1,3,5-Trichloronaphthalene	51570-43-5	
			R00421	1,2,6-Trichloronaphthalene	51570-44-6	
			R00422	1,2,4,6-Tetrachloronaphthalene	51570-45-7	
			R00423	1,2,3,5-Tetrachloronaphthalene	53555-63-8	
			R00424	1,3,5,7-Tetrachloronaphthalene	53555-64-9	
			R00425	1,2,3,5,7-Pentachloronaphthalene	53555-65-0	
			R00426	1,2,5-Trichloronaphthalene	55720-33-7	
			R00427	1,2,7-Trichloronaphthalene	55720-34-8	
			R00428	1,2,8-Trichloronaphthalene	55720-35-9	
			R00429	1,3,6-Trichloronaphthalene	55720-36-0	
			R00430	1,3,7-Trichloronaphthalene	55720-37-1	
			R00431	1,3,8-Trichloronaphthalene	55720-38-2	
			R00432	1,6,7-Trichloronaphthalene	55720-39-3	
			R00433	2,3,6-Trichloronaphthalene	55720-40-6	
			R00434	1,2,3,7-Tetrachloronaphthalene	55720-41-7	
R00435	1,3,6,7-Tetrachloronaphthalene	55720-42-8				
R00436	1,4,6,7-Tetrachloronaphthalene	55720-43-9				
R00437	1,2,3,4,5,6,7-Heptachloronaphthalene	58863-14-2				
R00438	1,2,3,4,5,6,8-Heptachloronaphthalene	58863-15-3				
R00439	1,2,3,4,5,6-Hexachloronaphthalene	58877-88-6				
R00440	1,2,4,7-Tetrachloronaphthalene	67922-21-8				
R00441	1,2,5,6-Tetrachloronaphthalene	67922-22-9				
R00442	1,2,5,7-Tetrachloronaphthalene	67922-23-0				
R00443	1,2,6,8-Tetrachloronaphthalene	67922-24-1				
R00444	1,2,3,4,5-Pentachloronaphthalene	67922-25-2				
R00445	1,2,3,4,6-Pentachloronaphthalene	67922-26-3				
R00446	1,2,3,4,5,7-Hexachloronaphthalene	67922-27-4				
R00447	1,2,4,5,6,8-Hexachloronaphthalene	90948-28-0				
R00448	1,2,4,5,7,8-Hexachloronaphthalene	103426-92-2				
R00449	1,2,3,4,5,8-Hexachloronaphthalene	103426-93-3				
R00450	1,2,3,5,7,8-Hexachloronaphthalene	103426-94-4				
R00451	1,2,3,5,6,8-Hexachloronaphthalene	103426-95-5				
R00452	1,2,3,4,6,7-Hexachloronaphthalene	103426-96-6				
R00453	1,2,3,5,6,7-Hexachloronaphthalene	103426-97-7				
R00454	1,2,3,6-Tetrachloronaphthalene	149864-78-8				
R00455	1,2,6,7-Tetrachloronaphthalene	149864-79-9				
R00456	1,2,5,8-Tetrachloronaphthalene	149864-80-2				
R00457	1,2,3,8-Tetrachloronaphthalene	149864-81-3				
R00458	1,2,7,8-Tetrachloronaphthalene	149864-82-4				
R00459	1,2,3,7,8-Pentachloronaphthalene	150205-21-3				
R00460	1,3,6,8-Tetrachloronaphthalene	150224-15-0				
R00461	1,2,3,6,7-Pentachloronaphthalene	150224-16-1				
R00462	1,2,4,6,7-Pentachloronaphthalene	150224-17-2				
R00463	1,2,3,5,6-Pentachloronaphthalene	150224-18-3				
R00464	1,2,4,5,7-Pentachloronaphthalene	150224-19-4				
R00465	1,2,4,5,6-Pentachloronaphthalene	150224-20-7				
R00466	1,2,4,7,8-Pentachloronaphthalene	150224-21-8				
R00467	1,2,4,6,8-Pentachloronaphthalene	150224-22-9				
R00468	1,2,3,6,8-Pentachloronaphthalene	150224-23-0				
R00469	1,2,3,5,8-Pentachloronaphthalene	150224-24-1				
R00470	1,2,4,5,8-Pentachloronaphthalene	150224-25-2				

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASNumber	CommonSynonyms
14	00052	Short chain chlorinated paraffins (SCCP, C10-13)	R00337	Alkanes, C10-13, chloro	85535-84-8	
			R00338	Alkanes, C10-12, chloro	108171-26-2	
			R00339	Alkanes, C12-13, chloro	71011-12-6	
			R00340	Alkanes, chloro	61788-76-9	
			R00341	Other Short Chain Chlorinated Paraffins	-	
17 18	00054 00055	Bis(tributyltin) oxide (TBTO) Tri-substituted organostannic compounds	~	Bis(tributyltin) oxide (TBTO)	56-35-9	TBTO; Distannoxane, hexabutyl-
			R00342	Triphenyltin-N, N-dimethyldithiocarbamate	1803-12-9	
			R00343	Triphenyltinfluoride	379-52-2	
			R00344	Triphenyltinacetate	900-95-8	
			R00345	Triphenyltinchloride	639-58-7	
			R00346	Triphenyltinhydroxide	76-87-9	
			R00347	Triphenyltin fattyacid ((9-11)salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5	
			R00348	Triphenyltinchloroacetate	7094-94-2	
			R00349	Tributyltinmethacrylate	2155-70-6	
			R00350	Bis(tributyltin) fumarate	6454-35-9	
			R00351	Tributyltinfluoride	1983-10-4	
			R00352	Bis(tributyltin) 2,3-dibromosuccinate	31732-71-5	
			R00353	Tributyltinacetate	56-36-0	
			R00354	Tributyltinlaurate	3090-36-6	
			R00355	Bis(tributyltin) phthalate	4782-29-0	
			R00356	Copolymer of alkyl (C=8) acrylate, methyl methacrylate and tributyltin methacrylate	67772-01-4	
			R00357	Tributyltin sulfamate	6517-25-5	
			R00358	Bis(tributyltin) maleate	14275-57-1	
			R00359	Tributyltinchloride	1461-22-9 7342-38-3	
			R00360	Tributyltin cyclopentane carbonate=mixture	85409-17-2	
			R00361	Tributyltin-1, 2, 3, 4, 4a, 4b, 5, 6, 10, 10a-decahydro-7-isopropyl-1, 4a-dimethyl-1-phenanthrenecarboxylatemix	26239-64-5	
			R00362	Other tri-substituted organostannic compounds	-	
			19	00003	Asbestos	R00001
R00002	Actinolite	77536-66-4				
R00003	Amosite (Grunerite)	12172-73-5				
R00004	Anthophyllite	77536-67-5				
R00005	Chrysotile	12001-29-5				
R00006	Crocidolite	12001-28-4				
R00007	Tremolite	77536-68-6				
111 112	00032	Ozone Depleting Substances	R00180	Trichlorofluoromethane	75-69-4	(GFC-11)
			R00181	Dichlorodifluoromethane	75-71-8	(GFC-12)
			R00182	Chlorotrifluoromethane	75-72-9	(GFC-13)
			R00183	Pentachlorofluoroethane	354-56-3	(GFC-111)
			R00184	Tetrachlorodifluoroethane 1, 1, 2, 2-Tetrachloro-1, 2-difluoroethane 1, 1, 1, 2-Tetrachloro-2, 2-difluoroethane	76-12-0 76-12-0 76-11-9	(GFC-112) (GFC-112) (GFC-112a)
			R00185	Trichlorotrifluoroethane 1, 1, 2-Trichloro-1, 2, 2 trifluoroethane 1, 1, 1-Trichloro-2, 2, 2 trifluoroethane	76-13-1 76-13-1 354-58-5	(GFC-113) (GFC-113) (GFC-113a)
			R00186	Dichlorotetrafluoroethane	76-14-2	(GFC-114)
			R00187	Monochloropentafluoroethane	76-15-3	(GFC-115)
			R00188	Heptachlorofluoropropane 1, 1, 1, 2, 2, 3, 3-Heptachloro-3-fluoropropane 1, 1, 1, 2, 2, 3, 3-Heptachloro-2-fluoropropane	422-78-6 135401-87-5 422-78-6 422-81-1	(GFC-211) (GFC-211aa) (GFC-211ba)
			R00189	Hexachlorodifluoropropane	3182-26-1	(GFC-212)
			R00190	Pentachlorotrifluoropropane	2354-06-5 134237-31-3	(GFC-213)
			R00191	Tetrachlorotetrafluoropropane 1, 2, 2, 3-Tetrachloro-1, 1, 3, 3-tetrafluoropropane 1, 1, 1, 3-Tetrachloro-2, 2, 3, 3-tetrafluoropropane	29255-31-0 2268-46-4 -	(GFC-214) (GFC-214aa) (GFC-214cb)
			R00192	Trichloropentafluoropropane 1, 2, 2-Trichloropentafluoropropane 1, 2, 3-Trichloropentafluoropropane 1, 1, 2-Trichloropentafluoropropane 1, 1, 3-Trichloropentafluoropropane 1, 1, 1-Trichloropentafluoropropane	1599-41-3 1599-41-3 76-17-5 - - 4259-43-2	(GFC-215) (GFC-215aa) (GFC-215ba) (GFC-215bb) (GFC-215cb) (GFC-215ca)
			R00193	Dichlorohexafluoropropane	661-97-2	(GFC-216)
			R00194	Chloroheptafluoropropane	422-86-6	(GFC-217)
			R00195	Bromochloromethane	74-97-5	(Halon-1011)
			R00196	Dibromodifluoromethane	75-61-6	(Halon-1202)
			R00197	Bromochlorodifluoromethane	353-59-3	(Halon-1211)
			R00198	Bromotrifluoromethane	75-63-8	(Halon-1301)
			R00199	Dibromotetrafluoroethane	124-73-2	(Halon-2402)
			R00200	Tetrachloromethane	56-23-5	(carbon tetrachloride)
			R00201	1, 1, 1-Trichloroethane	71-55-6	(methylchloroform)
			R00202	Bromomethane	74-83-9	(methyl bromide)
			R00203	Bromoethane	74-96-4	(ethyl bromide)
			R00205	Trifluoroiodomethane	2314-97-8	(trifluoromethyl iodide)
			R00206	Chloromethane	74-87-3	(methyl chloride)
			R00207	Dibromofluoromethane	1868-53-7	(HBFC-21 B2)
			R00208	Bromodifluoromethane	1511-62-2	(HBFC-22 B1)
			R00209	Bromofluoromethane	373-52-4	(HBFC-31 B1)
			R00210	Tetrabromofluoroethane	306-80-9	(HBFC-121 B4)
			R00211	Tribromodifluoroethane	-	(HBFC-122 B3)
			R00212	Dibromotrifluoroethane	354-04-1	(HBFC-123 B2)
			R00213	Bromotetrafluoroethane	124-72-1	(HBFC-124 B1)
			R00214	Tribromofluoroethane	-	(HBFC-131 B3)
			R00215	Dibromodifluoroethane	75-82-1	(HBFC-132 B2)
			R00216	Bromotrifluoroethane	421-06-7	(HBFC-133 B1)
			R00217	Dibromofluoroethane	358-97-4	(HBFC-141 B2)
			R00218	Bromodifluoroethane	420-47-3	(HBFC-142 B1)
			R00219	Bromofluoroethane	762-49-2	(HBFC-151 B1)
			R00220	Hexabromofluoropropane	-	(HBFC-221 B6)
			R00221	Pentabromodifluoropropane	-	(HBFC-222 B5)
			R00222	Tetrabromotrifluoropropane	-	(HBFC-223 B4)
			R00223	Tribromotetrafluoropropane	-	(HBFC-224 B3)
			R00224	Dibromopentafluoropropane	431-78-7	(HBFC-225 B2)



Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASNumber	CommonSynonyms
			R00225	Bromohexafluoropropane	2252-78-0	(HBFC-226 B1)
			R00226	Pentabromofluoropropane	-	(HBFC-231 B5)
			R00227	Tetrabromodifluoropropane	-	(HBFC-232 B4)
			R00228	Tribromotrifluoropropane	-	(HBFC-233 B3)
			R00229	Dibromotetrafluoropropane	-	(HBFC-234 B2)
			R00230	Bromopentafluoropropane	460-88-8	(HBFC-235 B1)
			R00231	Tetrabromofluoropropane	-	(HBFC-241 B4)
			R00232	Tribromodifluoropropane	70192-80-2	(HBFC-242 B3)
			R00233	Dibromotrifluoropropane	431-21-0	(HBFC-243 B2)
			R00234	Bromotetrafluoropropane	679-84-5	(HBFC-244 B1)
			R00235	Tribromofluoropropane	75372-14-4	(HBFC-251 B3)
			R00236	Dibromodifluoropropane	460-25-3	(HBFC-252 B2)
			R00237	Bromotrifluoropropane	421-46-5	(HBFC-253 B1)
			R00238	Dibromofluoropropane	51584-26-0	(HBFC-261 B2)
			R00239	Bromodifluoropropane	-	(HBFC-262 B1)
			R00240	Bromofluoropropane	1871-72-3	(HBFC-271 B1)
			R00241	Dichlorofluoromethane	75-43-4	(HCFC-21)
			R00242	Chlorodifluoromethane	75-45-6	(HCFC-22)
			R00243	Chlorofluoromethane	593-70-4	(HCFC-31)
			R00244	Tetrachlorofluoroethane 1, 1, 2, 2-Tetrachloro-1-fluoroethane 1, 1, 1, 2-Tetrachloro-2-fluoroethane	134237-32-4 354-14-3 354-11-0	(HCFC-121) (HCFC-121) (HCFC-121a)
			R00245	Trichlorodifluoroethane 1, 2, 2-Trichloro-1, 1-difluoroethane 1, 1, 2-Trichloro-1, 2-difluoroethane 1, 1, 1-Trichloro-2, 2-difluoroethane	41834-16-6 354-21-2 354-15-4 354-12-1	(HCFC-122) (HCFC-122) (HCFC-122a) (HCFC-122b)
			R00246	Dichlorotrifluoroethane 1, 1-Dichloro-2, 2, 2-trifluoroethane 1, 2-Dichloro-1, 1, 2-trifluoroethane 1, 1-Dichloro-1, 2, 2-trifluoroethane	34077-87-7 306-83-2 354-23-4 90454-18-5 812-04-4	(HCFC-123) (HCFC-123) (HCFC-123a) (HCFC-123b)
			R00247	Chlorotetrafluoroethane 2-chloro-1, 1, 1, 2-tetrafluoroethane 1-chloro-1, 1, 2, 2-tetrafluoroethane	63938-10-3 2837-89-0 354-25-6	(HCFC-124) (HCFC-124) (HCFC-124a)
			R00248	Trichlorofluoroethane 1, 1, 2-Trichloro-2-fluoroethane 1, 1, 2-Trichloro-1-fluoroethane 1, 1, 1-Trichloro-2-fluoroethane	27154-33-2; (134237-34-6) 359-28-4 811-95-0 2366-36-1	(HCFC-131) (HCFC-131) (HCFC131a) (HCFC-131b)
			R00249	Dichlorodifluoroethane 1, 2-Dichloro-1, 2-difluoroethane 1, 1-Dichloro-2, 2-difluoroethane 1, 2-Dichloro-1, 1-difluoroethane 1, 1-Dichloro-1, 2-difluoroethane	25915-78-0 431-06-1 471-43-2 1649-08-7 1842-05-3	(HCFC-132) (HCFC-132) (HCFC-132a) (HCFC-132b) (HCFC-132c)
			R00250	Chlorotrifluoroethane 1-Chloro-1, 2, 2-trifluoroethane 2-Chloro-1, 1, 1-trifluoroethane 1-Chloro-1, 1, 2-trifluoroethane	1330-45-6 431-07-2 1330-45-6 75-88-7 421-04-5	(HCFC-133) (HCFC-133) (HCFC-133a) (HCFC-133b)
			R00251	Dichlorofluoroethane 1, 2-Dichloro-1-fluoroethane 1, 1-Dichloro-2-fluoroethane 1, 1-Dichloro-1-fluoroethane	1717-00-6; (25167-88-8) 430-57-9 430-53-5 1717-00-6	(HCFC-141) (HCFC-141) (HCFC-141a) (HCFC-141b)
			R00252	Chlorodifluoroethane 2-Chloro-1, 1-Difluoroethane 1-Chloro-1, 1-difluoroethane 1-Chloro-1, 2-difluoroethane	25497-29-4 338-65-8 75-68-3 338-64-7	(HCFC-142) (HCFC-142) (HCFC-142b) (HCFC-142a)
			R00253	Chlorofluoroethane 1-Chloro-2-fluoroethane 1-Chloro-1-fluoroethane	110587-14-9 762-50-5 1615-75-4	(HCFC-151) (HCFC-151) (HCFC-151a)
			R00254	Hexachlorofluoropropane 1, 1, 1, 2, 2, 3-Hexachloro-3-fluoropropane	134237-35-7 29470-94-8 422-26-4	(HCFC-221) (HCFC-221ab)
			R00255	Pentachlorodifluoropropane 1, 1, 1, 3, 3-pentachloro-2, 2-difluoropropane 1, 2, 2, 3, 3-pentachloro-1, 1-difluoropropane	134237-36-8 422-49-1 422-30-0	(HCFC-222) (HCFC-222ca) (HCFC-222aa)
			R00256	Tetrachlorotrifluoropropane 1, 1, 3, 3-Tetrachloro-1, 2, 2-trifluoropropane 1, 1, 1, 3-Tetrachloro-2, 2, 3-trifluoropropane	134237-37-9 422-52-6 422-50-4	(HCFC-223) (HCFC-223ca) (HCFC-223cb)
			R00257	Trichlorotetrafluoropropane 1, 3, 3-Trichloro-1, 1, 2, 2-tetrafluoropropane 1, 1, 3-Trichloro-1, 2, 2, 3-tetrafluoropropane 1, 1, 1-Trichloro-2, 2, 3, 3-tetrafluoropropane	134237-38-0, 422-54-8, 422-53-7, 422-51-5	(HCFC-224) (HCFC-224ca) (HCFC-224cb) (HCFC-224cc)
			R00258	Dichloropentafluoropropane 2, 2-Dichloro-1, 1, 1, 3, 3-pentafluoropropane 2, 3-Dichloro-1, 1, 1, 2, 3-pentafluoropropane 1, 2-Dichloro-1, 1, 2, 3, 3-pentafluoropropane 3, 3-Dichloro-1, 1, 1, 2, 2-pentafluoropropane 1, 3-Dichloro-1, 1, 2, 2, 3-pentafluoropropane 1, 1-Dichloro-1, 2, 2, 3, 3-pentafluoropropane 1, 2-Dichloro-1, 1, 3, 3, 3-pentafluoropropane 1, 3-Dichloro-1, 1, 2, 3, 3-pentafluoropropane 1, 1-Dichloro-1, 2, 3, 3, 3-pentafluoropropane	127564-92-5 128903-21-9 422-48-0 422-44-6 422-56-0 507-55-1 13474-88-9 431-86-7 136013-79-1 111512-56-2	(HCFC-225) (HCFC-225aa) (HCFC-225ba) (HCFC-225bb) (HCFC-225ca) (HCFC-225cb) (HCFC-225cc) (HCFC-225da) (HCFC-225ea) (HCFC-225eb)
			R00259	Chlorohexafluoropropane 2-Chloro-1, 1, 1, 3, 3, 3-hexafluoro-propane	134308-72-8 431-87-8	(HCFC-226) (HCFC-226da)
			R00260	Pentachlorofluoropropane 1, 1, 1, 2, 3-pentachloro-2-fluoro-propane	134190-48-0 421-94-3	(HCFC-231) (HCFC-231bb)
			R00261	Tetrachlorodifluoropropane 1, 1, 1, 3-Tetrachloro-3, 3-difluoropropane	134237-39-1 460-89-9	(HCFC-232) (HCFC-232fc)
			R00262	Trichlorotrifluoropropane 1, 1, 1-Trichloro-3, 3, 3-trifluoropropane	134237-40-4 7125-83-9	(HCFC-233) (HCFC-233fb)
			R00263	Dichlorotetrafluoropropane 1, 2-Dichloro-1, 2, 3, 3-tetrafluoropropane	127564-83-4 425-94-5	(HCFC-234) (HCFC-234db)
			R00264	Chloropentafluoropropane 1-Chloro-1, 1, 3, 3, 3-pentafluoropropane	134237-41-5 460-92-4	(HCFC-235) (HCFC-235fa)
			R00265	Tetrachlorofluoropropane 1, 1, 2, 3-Tetrachloro-1-fluoropropane	134190-49-1 666-27-3	(HCFC-241) (HCFC-241db)
			R00266	Trichlorodifluoropropane 1, 3, 3, Trichloro-1, 1-difluoropropane	134237-42-6 460-63-9	(HCFC-242) (HCFC-242fa)
			R00267	Dichlorotrifluoropropane 1, 1-Dichloro-1, 2, 2-trifluoropropane 2, 3-Dichloro-1, 1, 1-trifluoropropane 3, 3-Dichloro-1, 1, 1-trifluoropropane	134237-43-7 7125-99-7 338-75-0 460-69-5	(HCFC-243) (HCFC-243cc) (HCFC-243db) (HCFC-243fa)

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASNumber	CommonSynonyms
			R00268	Chlorotetrafluoropropane 3-Chloro-1,1,2,2-tetrafluoropropane 1-Chloro-1,1,2,2-tetrafluoropropane	134190-50-4 679-85-6 421-75-0	(HCFC-244) (HCFC-244ca) (HCFC-244cc)
			R00269	Trichlorofluoropropane 1,1,3-Trichloro-1-fluoropropane 1,1,2-Trichloro-1-fluoropropane	134190-51-5 818-99-5 421-41-0	(HCFC-251) (HCFC-251fb) (HCFC-251dc)
			R00270	Dichlorodifluoropropane 1,3-Dichloro-1,1-difluoropropane	134190-52-6 819-00-1	(HCFC-252) (HCFC-252fb)
			R00271	Chlorotrifluoropropane 3-Chloro-1,1,1-trifluoropropane	134237-44-8 460-35-5	(HCFC-253) (HCFC-253fb)
			R00272	Dichlorofluoropropane 1,1-Dichloro-1-fluoropropane 1,2-Dichloro-2-fluoropropane	134237-45-9 7799-56-6 420-97-3	(HCFC-261) (HCFC-261fc) (HCFC-261ba)
			R00273	Chlorodifluoropropane 1-Chloro-2,2-difluoropropane 2-Chloro-1,3-difluoropropane 1-Chloro-1,1-difluoropropane	134190-53-7 420-99-5 102738-79-4 421-02-3	(HCFC-262) (HCFC-262ca) (HCFC-262da) (HCFC-262fc)
			R00274	Chlorofluoropropane 2-Chloro-2-fluoropropane 1-Chloro-1-fluoropropane	134190-54-8 420-44-0 430-55-7	(HCFC-271) (HCFC-271ba) (HCFC-271fb)
			I13	00044	Polybrominated biphenyls (PBB)	R00296
R00297	Dibromobiphenyl	92-86-4				
R00298	2-Bromobiphenyl	2052-07-5				
R00299	3-Bromobiphenyl	2113-67-7				
R00300	4-Bromobiphenyl	92-66-0				
R00301	Tribromobiphenyl	59080-34-1				
R00302	Tetrabromobiphenyl	40088-45-7				
R00303	Pentabromobiphenyl	56307-79-0				
R00304	Hexabromobiphenyl	59080-40-9				
R00305	hexabromo-1,1-biphenyl	36355-01-8				
R00306	Firemaster FF-1	67774-32-7				
R00307	Heptabromobiphenyl	35194-78-6				
R00308	Octabromobiphenyl	61288-13-9				
R00309	Nonabromobiphenyl	27753-52-2				
R00310	Decabromobiphenyl	13654-09-6				
I14	00045	Polybrominated diphenyl ethers (PBDE)	R00311	Bromodiphenyl ether	101-55-3	
			R00312	Dibromodiphenyl ethers	2050-47-7	
			R00313	Tribromodiphenyl ether	49690-94-0	
			R00314	Tetrabromodiphenyl ethers	40088-47-9	
			R00315	Hexabromodiphenyl ether	36483-60-0	
			R00316	Heptabromodiphenyl ether	68928-80-3	
			R00317	Nonabromodiphenyl ether	63936-56-1	
			R00318	Decabromodiphenyl ether	1163-19-5	
			R00319	Pentabromodiphenyl ether	32534-81-9	
			R00320	Octabromodiphenyl ether	32536-52-0	
			R00096	Cadmium	7440-43-9	
			R00097	Cadmium oxide	1306-19-0	
R00098	Cadmium sulfide	1306-23-6				
R00151	Lead	7439-92-1				
R00152	Lead (II) sulfate	7446-14-2				
R00153	Lead (II) carbonate	598-63-0				
R00154	Trilead bis(carbonate) dihydroxide	1319-46-6				
R00156	Lead (II) acetate, trihydrate	6080-56-4				
R00158	Lead selenide	12069-00-0				
R00159	Lead (IV) oxide	1309-60-0				
R00160	Lead (II,IV) oxide	1314-41-6				
R00161	Lead (II) sulfide	1314-87-0				
R00165	Lead (II) phosphate	7446-27-7	Lead phosphate			
R00166	Lead (II) titanate	12060-00-3				
R00167	Lead sulfate, sulphuric acid, lead salt	15739-80-7				
R00168	Lead sulphate, tribasic	12202-17-4				
R00169	Lead stearate	1072-35-1				
R00170	Lead (II) chromate	7758-97-6				
R00171	Lead chromate molybdate sulphate red	12656-85-8				
R00172	Lead sulfochromate yellow	1344-37-2				
R00101	Barium chromate	10294-40-3				
R00102	Calcium chromate	13765-19-0				
R00106	Strontium chromate	7789-06-2				
R00109	Zinc chromate	13530-65-9				
R00173	Mercury	7439-97-6				
R00174	Mercury, chloro(cyclohexylmethyl)-	33631-63-9				
R00175	Mercury (II) chloride	7487-94-7				
R00176	Mercuric sulfate	7783-35-9				
R00177	Mercuric nitrate	10045-94-0				
R00178	Mercuric (II) oxide	21908-53-2				
R00179	Mercuric sulfide	1344-48-5				
I44	00124 00125	Perfluorooctane sulfonates (PFOS)	R00287	2-Propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl[(perfluoro-C4-8-alkyl)-sulfonyl]amino]ethyl acrylate and vinylidene chloride	306975-62-2	
			R00288	Glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt	2991-51-7	
I45	00035	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320) (GAS No. 3846-71-7)	~	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7	UV-320; 2-(2H-benzotriazol-2-yl)-4,6-di-tert-butylphenol; Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylthyl)-
I47	00016	Dimethylfumarate (DMF)	~	Dimethylfumarate (DMF)	624-49-7	
I50	00014	Dibutyltin (DBT) compounds	R00110	Dibutyltin oxide	818-08-6	
			R00111	Dibutyltin diacetate	1067-33-0	
			R00112	Dibutyltin dilaurate	77-58-7	
			R00113	Dibutyltin maleate	78-04-6	
			R00114	Other dibutyltin compounds	-	
I51	00015	Diocetyl tin (DOT) compounds	R00115	Diocetyl Tin Oxide	870-08-6	
			R00116	Diocetyl tin dilaurate	3648-18-8	
			R00117	Other Diocetyl tin compounds	-	
I52	00020	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified:	R00147	Hexabromocyclododecane (HBCDD)	25637-99-4	
			R00148	alpha-hexabromocyclododecane	134237-50-6	
			R00149	beta-hexabromocyclododecane	134237-51-7	
			R00150	gamma-hexabromocyclododecane	134237-52-8	
			R00492	1,2,5,6,9,10-hexabromocyclododecane	3194-55-6	

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASnumber	CommonSynonyms
I53	00160 00161	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA	R00499	Pentadecafluorooctanoic acid	335-67-1	Perfluorooctanoic acid
			R00500	Ammonium pentadecafluorooctanoate	3825-26-1	Ammonium perfluorooctanoate
			R00501	Sodium pentadecafluorooctanoate	335-95-5	Sodium perfluorooctanoate
			R00502	Potassium pentadecafluorooctanoate	2395-00-8	Potassium perfluorooctanoate
			R00503	Silver pentadecafluorooctanoate	335-93-3	Silver perfluorooctanoate
			R00504	Pentadecafluorooctanoic acid	335-67-1	Perfluorooctanoic acid
			R00505	Ammonium pentadecafluorooctanoate	3825-26-1	Ammonium perfluorooctanoate
			R00506	Sodium pentadecafluorooctanoate	335-95-5	Sodium perfluorooctanoate
			R00507	Potassium pentadecafluorooctanoate	2395-00-8	Potassium perfluorooctanoate
			R00508	Silver pentadecafluorooctanoate	335-93-3	Silver perfluorooctanoate
			R00509	Pentadecafluorooctanoyl fluoride	335-66-0	Perfluorooctanoyl fluoride
			R00510	Methyl pentadecafluorooctanoate	376-27-2	Methyl perfluorooctanoate
			R00511	Ethyl pentadecafluorooctanoate	3108-24-5	Ethyl perfluorooctanoate
			R00512	3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-Heptadecafluorodecan-1-ol	678-39-7	
R00724	2-Propenoic acid, 2-methyl-, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-heptadecafluorodecyl ester	1996-88-9	1H, 1H, 2H, 2H-Heptadecafluorodecyl Methacrylate (stabilized with MEHQ): 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-heptadecafluorodecyl 2-methylprop-2-enoate: 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-Heptadecafluorodecyl methacrylate			
I54	00108	Polycyclic aromatic hydrocarbons (PAHs)	~	Benzo[a]pyrene (BaP)	50-32-8	BaP: Benzo[def]chrysene
	00109		~	Benzo[e]pyrene (BeP)	192-97-2	BeP
	00110		~	Benzo[a]anthracene (BaA)	56-55-3	BaA: Benz[a]anthracene
	00111		~	Chrysen (CHR)	218-01-9	CHR: chrysene
	00112		~	Benzo[b]fluoranthene (BbFA)	205-99-2	BbFA
	00113		~	Benzo[j]fluoranthene (BjFA)	205-82-3	BjFA
	00114		~	Benzo[k]fluoranthene (BkFA)	207-08-9	BkFA
	00115		~	Dibenzo[a,h]anthracene (DBAha)	53-70-3	DBAha
	00116		~	Benzo[a]pyrene (BaP)	50-32-8	BaP: Benzo[def]chrysene
	00117		~	Benzo[e]pyrene (BeP)	192-97-2	BeP
	00118		~	Benzo[a]anthracene (BaA)	56-55-3	BaA: Benz[a]anthracene
	00119		~	Chrysen (CHR)	218-01-9	CHR: chrysene
	00120		~	Benzo[b]fluoranthene (BbFA)	205-99-2	BbFA
	00121		~	Benzo[j]fluoranthene (BjFA)	205-82-3	BjFA
00122	~	Benzo[k]fluoranthene (BkFA)	207-08-9	BkFA		
00123	~	Dibenzo[a,h]anthracene (DBAha)	53-70-3	DBAha		
I56	00038	Bis (2-ethylhexyl) phthalate (DEHP)	~	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7	DEHP: 1, 2-Benzenedicarboxylic acid, bis(2-ethylhexyl) ester
I57	00039	Dibutyl phthalate (DBP)	~	Dibutyl phthalate (DBP)	84-74-2	DBP: 1, 2-Benzenedicarboxylic acid, dibutyl ester
I58	00040	Benzyl butyl phthalate (BBP)	~	Benzyl butyl phthalate (BBP)	85-68-7	BBP: 1, 2-Benzenedicarboxylic acid, butyl phenylmethyl ester
I59	00041	Diisobutyl phthalate (DIBP)	~	Diisobutyl phthalate	84-69-5	DIBP: Bis(2-methylpropyl) benzene-1, 2-dicarboxylate; 1, 2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester
I62	00182	Long chain perfluorocarboxylic acids (C9-C14PFCA)	R00744	Undecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 11-henicosafluoro-	2058-94-8	
			R00745	Perfluorononan-1-oic acid, sodium salt	21049-39-8	
			R00746	Dodecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 12-tricosafuoro-	307-55-1	
			R00747	Ammonium nonadecafluorodecanoate	3108-42-7	
			R00748	Decanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-nonadecafluoro-	335-76-2	
			R00749	Nonanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 9-heptadecafluoro-	375-95-1	
			R00750	Tetradecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 14-heptacosafuoro-	376-06-7	
			R00751	Sodium nonadecafluorodecanoate	3830-45-3	
			R00752	Perfluorononan-1-oic acid, ammonium salt	4149-60-4	
			R00753	Tridecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-pentacosafuoro-	72629-94-8	
I63	00183	C9-C14 PFCA related substances	R00754	Dodecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12, 12-docosafuoro-11-(trifluoromethyl)-	16486-96-7	
			R00755	Undecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11-eicosafuoro-	1765-48-6	
			R00756	Tetradecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 14, 14, 14-hexacosafuoro-13-(trifluoromethyl)-	18024-09-4	
			R00757	Undecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11-eicosafuoro-, potassium salt	307-71-1	

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASNumber	CommonSynonyms
			R00758	Decanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 10, 10, 10-octadecafluoro-9-(trifluoromethyl)-, ammonium salt	3658-63-7	
			R00759	Ammonium tricosafuorododecanoate	3793-74-6	
			R00760	Dodecanoic acid, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12-docosafuoro-11-(trifluoromethyl)-, compd. With ethanamine (1:1)	68015-87-2	
			R00761	2-Propenoic acid, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 12-heneicosafuorododecyl ester, polymer with 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-heptadecafluorodecyl 2-propenoate, hexadecyl 2-propenoate, N-(hydroxymethyl)-2-propenamide, octadecyl 2-propenoate, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 14-pentacosafuorotetradecyl 2-propenoate and 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 8-tridecafluoroctyl 2-propenoate	115592-83-1	
			R00762	2-Propenoic acid, 2-methyl-, C10-16-alkyl esters, polymers with 2-hydroxyethyl methacrylate, Me methacrylate and perfluoro-C8-14-alkyl acrylate	125328-29-2	
			R00763	2-Propenoic acid, 2-methyl-, C10-16-alkyl esters, polymers with 2-hydroxyethyl methacrylate, Me methacrylate and gamma-omega perfluoro-C8-14-alkyl acrylate	129783-45-5	
			R00764	2-Propenoic acid, dodecyl ester, polymers with Bu (1-oxo-2-propenyl) carbamate and gamma-omega-perfluoro-C8-14-alkyl acrylate	144031-01-6	
			R00765	Dodecanoyl fluoride, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12-docosafuoro-11-(trifluoromethyl)-	15811-52-6	
			R00766	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15-tetracosafuoro-2-11-tetra-14-(trifluoromethyl)pentadecyl acrylate	16083-87-7	
			R00767	2-Propenoic acid, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 12-heneicosafuorododecyl ester	17741-60-5	
			R00768	Bis[3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-henicosafuorododecyl] hydrogen phosphate	1895-26-7	
			R00769	Dodecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10-heneicosafuoro-12-iodo-	2043-54-1	
			R00770	2-Propenoic acid, 2-methyl-, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-heneicosafuorododecyl ester	2144-54-9	
			R00771	Tetradecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-pentacosafuoro-14-iodo-	30046-31-2	
			R00772	Undecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11-tricosafuoro-11-iodo-	307-50-6	
			R00773	Dodecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-pentacosafuoro-12-iodo-	307-60-8	
			R00774	Tetradecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14-nonacosafuoro-14-iodo-	307-63-1	
			R00775	Dodecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-tetracosafuoro-12-iodo-2-	3248-61-1	
			R00776	Tetradecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14-octacosafuoro-14-iodo-2-	3248-63-3	
			R00777	Pentadecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15-hentriacontafuoro-15-iodo-	335-79-5	
			R00778	Tridecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14-heptacosafuoro-13-iodo-	376-04-5	
			R00779	1-Tetradecanol, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 14-pentacosafuoro-	39239-77-5	
			R00780	Decane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10-heneicosafuoro-10-iodo-	423-62-1	
			R00781	2-Propenoic acid, 2-methyl-, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 16-nonacosafuorohexadecyl ester	4980-53-4	
			R00782	3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 14-tetracosafuoro-13-(trifluoromethyl)tetradecyl acrylate	52956-82-8	
			R00783	Nonane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9-nonadecafluoro-9-iodo-	558-97-4	
			R00784	2-Propenoic acid, 2-methyl-, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 14-pentacosafuorotetradecyl ester	6014-75-1	
			R00785	1-Hexadecanol, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 16-nonacosafuoro-	60699-51-6	
			R00786	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-icosafuoro-2-hydroxy-12-(trifluoromethyl)tridecyl dihydrogen phosphate	63295-27-2	
			R00787	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl dihydrogen phosphate	63295-28-3	
			R00788	2-Propenoic acid, 2-methyl-, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12-heneicosafuorododecyl ester, polymer with 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-heptadecafluorodecyl 2-methyl-2-propenoate, methyl 2-methyl-2-propenoate, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14-pentacosafuorotetradecyl 2-methyl-2-propenoate and 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 8-tridecafluoroctyl 2-methyl-2-propenoate	65104-45-2	
			R00789	Hexadecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14-nonacosafuoro-16-iodo-	65510-55-6	
			R00790	Undecane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9-nonadecafluoro-11-iodo-	65510-56-7	
			R00791	Decane, 1, 1, 1, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10-eicosafuoro-10-iodo-2-(trifluoromethyl)-	677-93-0	

Restricted substances			IEC62474 Reference Substances			
Control No.	IEC62474 DSL-ID	SubstanceGroup	IEC62474 RSL-ID	SpecificSubstance	CASNumber	CommonSynonyms
			R00792	Tetradecanoyl fluoride, 2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 14, 14, 14-hexacosafuoro-13-(trifluoromethyl)-	68025-62-7	
			R00793	2H-Pyran, 2, 2, 3, 3, 4, 4, 5, 5, 6-nonafuorotetrahydro-6-(nonadecafluorononyl)-	68155-54-4	
			R00794	Alkyl iodides, C4-20, gamma-omega-perfluoro	68188-12-5	
			R00795	Fatty acids, C7-13, perfluoro	68333-92-6	
			R00796	Alkyl iodides, C10-12, gamma-omega-perfluoro	68390-33-0	
			R00797	Phosphonic acid, perfluoro-C6-12-alkyl derivs.	68412-68-0	
			R00798	Phosphonic acid, bis(perfluoro-C6-12-alkyl)derivs.	68412-69-1	
			R00799	1-(carboxylatomethyl)-1-(2-hydroxyethyl)-4-(2, 2, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 10-nonadecafluoro-1-oxodecyl)piperazinium	71356-38-2	
			R00800	Fatty acids, C7-13, perfluoro, ammonium salts	72968-38-8	
			R00801	3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 12, 12, 12-icosafuoro-11-(trifluoromethyl) dodecyl methacrylate	74256-14-7	
			R00802	3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 14, 14, 14-tetracosafuoro-13-(trifluoromethyl) tetradecyl methacrylate	74256-15-8	
			R00803	2-Propenoic acid, gamma-omega-perfluoro-C8-14-alkyl esters	85631-54-5	
			R00804	2-Propenoic acid, perfluoro-C8-16-alkyl esters	85681-64-7	
			R00805	1-Dodecanol, 3, 3, 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 12-heneicosafuoro-	865-86-1	
			R00806	Alkyl iodides, C6-18, perfluoro	90622-71-2	
			R00807	Amides, C7-19, alpha-omega-perfluoro-N,N-bis(hydroxyethyl)	90622-99-4	
			R00808	Fatty acids, C7-19, perfluoro	91032-01-8	
			R00809	Phosphonic acid, bis(perfluoro-C6-12-alkyl) derivs., aluminum salts	93062-53-4	
			R00810	1, 1'-[oxybis[(1-methylethyleneoxy)]bis[4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15-pentacosafuoro-12-icosadecan-2-ol]	93776-00-2	
			R00811	(2-carboxylatoethyl) (dimethyl) [3-[(4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15-pentacosafuoro-2-hydroxypentadecyl)amino]propyl]ammonium	93776-12-6	
			R00812	(2-carboxylatoethyl) [3-[(4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-henicosafuoro-2-hydroxytridecyl)amino]propyl dimethylammonium	93776-13-7	
			R00813	(2-carboxylatoethyl) (dimethyl) [[4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl]amino]propyl]ammonium	93776-15-9	
			R00814	bis(2-hydroxyethyl)methyl (4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15-pentacosafuoro-2-hydroxypentadecyl)ammonium iodide	93776-16-0	
			R00815	[4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-henicosafuoro-2-hydroxytridecan-1-yl][bis(2-hydroxyethyl)]methylammonium iodide	93776-17-1	
			R00816	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-henicosafuoro-2-hydroxytridecyl dihydrogen phosphate	94158-70-0	
			R00817	bis(2-hydroxyethyl)methyl [4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl] ammonium iodide	94159-76-9	
			R00818	1-[[3-(dimethylamino)propyl]amino]-4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15-pentacosafuoropentadecan-2-ol	94159-79-2	
			R00819	1-[[3-(dimethylamino)propyl]amino]-4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-henicosafuorotridecan-2-ol	94159-80-5	
			R00820	1-[[3-(dimethylamino)propyl]amino]-4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15-tetracosafuoro-14-(trifluoromethyl)pentadecan-2-ol	94159-82-7	
			R00821	1-[[3-(dimethylamino)propyl]amino]-4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 13, 13, 13-icosafuoro-12-(trifluoromethyl)tridecan-1-ol	94159-83-8	
			R00822	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 15-pentacosafuoro-2-hydroxypentadecyl dihydrogen phosphate	94200-42-7	
			R00823	4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 17-nonacosafuoro-2-hydroxyheptadecyl dihydrogen phosphate	94200-43-8	
			R00824	Diammonium 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-henicosafuoro-2-hydroxytridecyl phosphate	94200-46-1	
			R00825	Diammonium 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 15-pentacosafuoro-2-hydroxypentadecyl phosphate	94200-47-2	
			R00826	Diammonium 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 14, 15, 15, 16, 16, 17, 17, 17-nonacosafuoro-2-hydroxyheptadecyl phosphate	94200-48-3	
			R00827	Diammonium 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 13-icosafuoro-2-hydroxy-12-(trifluoromethyl)tridecyl phosphate	94200-50-7	
			R00828	Diammonium 4, 4, 5, 5, 6, 6, 7, 7, 8, 8, 9, 9, 10, 10, 11, 11, 12, 12, 13, 13, 14, 15, 15, 15-tetracosafuoro-2-hydroxy-14-(trifluoromethyl)pentadecyl phosphate	94200-51-8	

[Revision history]

Version	Details of revision	Revision date
Ver. 2	<p>The control level of substances was changed from contained substances (Level 4) to substances to be reduced (Level 3).</p> <p>2. The definition for “common electric items” was added to the concept of chemical substances control. The “oxide” in “Bis (chloromethyl) oxide” in I40 was changed to the “ether “ more appropriately. Examples of pigments that form specified amines were added to Table 2-2.</p> <p>4. The investigations on “common electric items” were added to the Investigation details and were modified.</p>	November 10, 2006
Ver. 3	<p>2-naphthylamine in I41 was eliminated from the category because it is included in Annex Table 1. “List of specific amines that should not be formed.” Revisions were made due to the elimination.</p>	November 21, 2006
Ver. 4	<p>The “common electric items” were changed to “electronic devices” and the definition was revised accordingly. I37 benzidine and 4-aminodiphenyl were eliminated from I37 and I38, respectively, because they are included in I10 of the “List of specific amines that should not be formed.” While bromobenzylbromotoluene (DBBT), monomethyl-tetrachloro-diphenyl methane, and monomethyl-dichloro-diphenyl methane are classified as PCBsin I1, these substances were categorized separately (I31, I34, and I35) and notes were added to Table 2-10 to clarify that point. A typo was corrected in “monomethyl-tetrachloro-diphenyl methane.” (from terora to tetra) Substances for PCBs were added to Annex Table 5, Chemical Substance Examples. A description was added to Table 2-11 to explain the details of control regarding yellow phosphorus.</p>	December 12, 2006
Ver. 5	<p>Ozone depleting substances (excluding HCFCs) I11 and ozone depleting substances (HCFCs) I12 were consolidated into one category. Benzene and its salts were eliminated from category I40. The control numbers changed in Ver.4 were changed back to the original numbers. The regulatory limits for I1 and I4 were reviewed. P51 Benzene was added to substances that are prohibited from use in manufacturing processes.</p>	January 16, 2007 Rev. 0
Ver. 6	<p>Perfluorooctane sulfonic acids (PFOS) were added to I44. 2- (2H-1,2,3-benzotriazole-2-yl) -4,6-di-tert-butylphenol was added to I45. Examples of uses for I44 and I45 were added to Table 7, “List of uses for prohibited substances (Level 1).” Substances of I44 were added to Annex Table 5, Chemical Substance Examples. The regulatory limits for 3.4 packaging materials were reviewed. Note 2 for the Yamatake group’s list of items exempted from RoHS regarding deca BDE was revised.</p>	July 18, 2008 Rev.1
Ver. 7	<p>Our group name, “Yamatake Group” was changed to “azbil Group.” 1) Status of the “Standards for Hazardous Substances Contained in Products Material for Suppliers Distribution,” and 4) Important notice were added to 1. Scope. In 2. Chemical substances control, names for (Level 1), (Level 2), and (Level 3) were changed to “prohibited substances,” “substances to be banned after the expiration date,” and “substances to be reduced by voluntary restrictions,” respectively, and 6) substances that require information provision (Level 4) was added. Descriptions were added on exemption from RoHS was added to 7) Prohibition of intentional addition, and control numbers were added to 13) Japan Green Procurement Survey Standardization Initiative (JGPSSI), and 15) EU’s REACH regulation and 16) SVHC. 3. Regulated chemical substances 3.1 Prohibited substances (Level 1) Threshold values for I4, and I7-I9 were reviewed. Portable batteries was added to I15. “Battery” in I18 was changed to “Portable batteries.” Substance names for I44 were reviewed. CSCL Class I Specified substances were added to I46. Category I8 was expanded from “Triphenyltin compounds (TPTs)” to “Tri-substituted organostannic compounds (TBTs)” and other related revisions were made accordingly Restriction for PVC in Table 2-8 was reviewed for the use for packaging materials. Names and restrictions for PFOS in Table 2-12 were reviewed. A description on ozone depleting substances in Table 2-13 was added. Substances that require information provision (Level 4) were added, and (Level 3) substances were eliminated.</p>	April 2010 Rev.2

	<p>Polyvinylchloride (PVC), cobalt chloride, dimethyl fumarate (DMF) were added to 3.4, “Packaging materials that are subject to control.”</p> <p>A note was added to Table 6 “The azbil Group’s list of items exempted from RoHS” to state that revised provisions for the RoHS Directive will supercede the present regulations.</p> <p>I46 was added to the examples of uses of regulated substances in 3.6.</p> <p>The descriptions in 4, “Investigation details” were reviewed.</p> <p>5. Annexure</p> <p>Annex Table 2 HCFC and Annex Table 3 HBFC were eliminated and the contents were consolidated into Annex Table 5.</p> <p>Substances in Annex Table 5 Chemical Substance Examples (Level 1) were reviewed.</p> <p>Annex Table 6 Chemical Substance Examples (Level 4)-Brominated flame retardants (excluding PBBs, PBDEs, and HBCDDs) was added.</p> <p>Annex Table 7 Chemical Substance Examples (Level 4): Radioactive materials (radioisotopes) was added.</p>	
Ver. 8	<ol style="list-style-type: none"> <li>1. Prohibited substances (Level 1) were determined to be within the range of JIG-101 Ed4.0. Prohibited substances I5, I6, I21-I43, and I46 were deleted. The details of prohibition and regulatory limits were reviewed, and organized to make it consistent with JIG</li> <li>2. Revisions due to changes on substances subject to control were reflected. Prohibited substances I47-I51 were added</li> <li>3. Changes to exemptions from RoHS were reflected. Table 6 The azbil Group’s list of items exempted from RoHS was updated.</li> <li>4. The latest SVHC (46 substances) under REACH were updated. The SVHC list was separated from Table 4 Substances that require information provision (Level 4), and Annex Table 8 was added.</li> <li>5. Review of the chemical substances control list. Annex Table 6 Chemical Substance Examples (Level 1) was reviewed.</li> <li>6. Corrections of errors and alteration of descriptions</li> </ol>	<p>July 2011</p> <p>Rev.3</p>
Ver. 8.1	<ol style="list-style-type: none"> <li>1. Corporate Name Change to Azbil Corporation</li> <li>2. The latest SVHC (73 substances) under REACH were updated</li> </ol>	<p>April 2012</p> <p>Rev.4</p>
Ver. 9	<p>Fixed the description of terms</p> <p>Added I52–I55 to &lt;Level 1&gt;</p> <p>Resurrected &lt;Level 2&gt;, and added I56–I59 (phthalic acid esters 4 substances)</p> <p>Table 6 on RoHS exemptions was updated</p> <p>Example substances were added in Annex 5 and Annex 9</p> <p>Annex 4 and Annex 8 was deleted. Annex numbers were arranged.</p>	<p>Dec. 2015</p> <p>Rev5</p>
Ver10	<p>Chemical substance list to be referred to was changed from JIG - 101 (discontinued) to international standard IEC 6247, and related changes were made.</p> <p>Substances (group) to be excluded were deleted.</p> <p>Items to be exempted by EU RoHS Directive Annex III were revised.</p>	<p>May 2019</p> <p>Rev6</p>
Ver11	<ol style="list-style-type: none"> <li>1. Document number and document structure were changed. The term “prohibited substance” was changed to “restricted substance.” For restricted substances, Tables 1,2, 5, and 7 were combined to Table 4.1. For example substances, Tables 5, 6, 7, and 9 were combined into Table 6.1. The number of the RoHS exemptions list was changed from Table 6 to Table 4.3. The number of the list of substances requiring information provision was changed from Table 4 to Table 4.2.</li> <li>2. Restricted substances I60, I61 were added.</li> <li>3. The restricted substance layer was added, and the explanations for levels 1, 2, 3, and 4 were deleted. Accordingly, Tables 10 and 11 were deleted.</li> <li>4. Regarding chemical substances prohibited from use in the manufacturing process, Tables 3 and 8 were deleted because they are included in the environmental conservation activities stipulated in the “azbil Group Green Procurement Standard for Suppliers.”</li> <li>5. Regarding the survey of chemical substances contained in purchased products, the survey by chemSHERPA was defined and Table 9 was deleted.</li> </ol>	<p>October 2020</p> <p>PQ000001 Rev.0</p>
Ver12	<ol style="list-style-type: none"> <li>1. Restricted substances I62, I63 were added.</li> <li>2. Updated Tables 4.1, 4.3, and 6.1.</li> </ol>	<p>November 2022</p> <p>PQ000001 Rev.1</p>

# **The azbil Group**

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