azbil

Standards for Hazardous Substances Contained in Products

Material for Distribution to Suppliers

<Ver.14.1>
September 2025

azbil Group

(EN)
PQ000001 R04

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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 the 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 the 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) Advance notice of restricted substances

Substances whose use in products are highly likely to be restricted by laws and regulations, and substances that are voluntarily restricted by the azbil Group are referred to as "advance notice of restricted substances."

We will notify our suppliers when we request conformity to "advance notice of restricted substances" by the request of the azbil Group's business divisions.

4) Restricted substance layer

Restricted substances to be managed differ according to the market requirements for the 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

5) 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.

6) Exemptions

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

7) 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

8) 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	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	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 & others)	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

Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group		azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
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
Layer 1	I45	00035	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (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	I47	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	I52	00020	Hexabromocyclododecane (HBCDD)		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	I53	00160 00161	Perfluorooctanoic acid and its salts PFOA-related compounds		Prohibitions on intentional use PFOA and individual salts: not more than 25 ppb PFOA-related compounds : 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	I61	～	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	I60	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	I62	00182	C9-C14 PFCAs and their salts		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 Fluoropolymers and fluoroelastomers
Layer 1	I63	00183	C9-C14 PFCA-related substances		Not more than 0.000026 mass%(260ppb) of article	[EU] REACH Regulation (EC) No.1907/2006 ANNEX XVII	

Restricted substance Layer		Control No.	IEC62474 DSL-ID	Substance Group		azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
Layer 1		I64	00174	Phenol, Isopropylated Phosphate (3:1) (PIP (3:1))		Prohibitions on intentional use < Exemptions> -Recycled plastics that do not intentionally contain PIP (3:1)	[USA] Toxic Substances Control Act (TSCA)	Flame retardant and/or plasticizer in polymers such as flexible polyurethane foam and PVC, adhesives and sealants.
Layer 1		I65	00143	Perfluorohexane-1-sulphonic acid and its salts PFHxS-related compounds		PFHxS and its salts: not more than 0.0000025 mass%(25ppb) of article PFHxS-related compounds: not more than 0.0001mass%(1ppm)	[EU] Persistent Organic Pollutants (POPs)	Impurity in production of PFOS and alternative for PFOS, a surfactant which can be found in protective coatings and adhesives which are resistant to water, dirt, oils etc.
Layer 1		I66	00147	1,6,7,8,9,14,15,16,17,17,18,18-Dodecachloropentacyclo[12.2.1.16,9.02,13.05,10]octadeca-7,15-diene (“Dechlorane Plus”™)		Prohibitions on intentional use	Annex A of the POPs Convention	Flame retardant for electric wire and cable covering material
Layer 1		I67	00130	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)		Prohibitions on intentional use	Annex A of the POPs Convention	UV stabilizer
Layer 1	RoHS restricted 10 substances	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	RoHS restricted 10 substances	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	RoHS restricted 10 substances	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	RoHS restricted 10 substances	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;	

Restricted substance Layer	Control No.		IEC62474 DSL-ID	Substance Group		azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
Layer 2 (RoHS10)	RoHS restricted 10 substances	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)	RoHS restricted 10 substances	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)	RoHS restricted 10 substances	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)	RoHS restricted 10 substances	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)	RoHS restricted 10 substances	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)	RoHS restricted 10 substances	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
Layer 3	I50		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	I51		00015	Dioctyltin (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

Restricted substance Layer	Control No.	IEC62474 DSL-ID	Substance Group		azbil Group Regulation	Major Referenced Laws and Regulations	Typical Applications
Layer 3	I54	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 Advance notice of restricted substances

Table 4.2 Advance notice of 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	I68		Medium-chain chlorinated paraffins (MCCP) (Chlorinated paraffins with carbon chain lengths in the range C14-17 and chlorination levels at or exceeding 45% chlorine by weight)	Prohibitions on intentional use	Scheduled restrictions due to additions to Annex A of the POPs Convention	Metalworking oils and flame-retardant resin raw materials
Layer 1	I69		Long-chain (C9-C21) perfluorocarboxylic acids (C9-21 PFCAs), its salts and related substances	Prohibitions on intentional use	Scheduled restrictions due to additions to Annex A of the POPs Convention	Fluoropolymer processing aids, heat transfer media, surfactants

Note: The business divisions of the azbil Group may require compliance with the advance notice of restricted substances.

4.3 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 4.3 Substances that require information provision

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

4.4 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 4.4 Applications exempted from the restriction by RoHS

Substance name	No.	IEC62474 Exemptions ID	Description (Exemption Description)	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	5
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	5
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	5
Mercury	2(b)(4)-III	00120-A-00	Mercury in other fluorescent lamps not exceeding (per lamp): Emergency lamps: 15 mg	5
Mercury	4(c)-I	00024-A-03	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner): P ≤ 155 W:20mg	5
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 ≤ 405 W: 25 mg	5
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	5
Mercury	4(e)	00028-A-01	Mercury in metal halide lamps (MH)	5
Mercury	4(f)-I	00110-A-00	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	5
Mercury	4(f)-II	00111-A-00	Mercury in high pressure mercury vapour lamps used in projectors where an output ≥ 2000 lumen ANSI is required	5
Mercury	4(f)-III	00112-A-00	Mercury in high pressure sodium vapour lamps used for horticulture lighting	5
Mercury	4(f)-IV	00113-A-00	Mercury in lamps emitting light in the ultraviolet spectrum	5
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	5
Lead	5(b)	00032-A-00	Lead in glass of fluorescent tubes not exceeding 0.2% by weight	1 to 7 and 10
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	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	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	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	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	1 to 7 and 10
Lead	6(c)	00040-B-00	Copper alloy containing up to 4 % lead by weight	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)	1 to 11
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	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	1 to 11
Cadmium	8(b)	00051-B-00	Cadmium and its compounds in electrical contacts	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 ≥ 200 Hz.	1 to 7 and 10
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 ≥ 75 W at	1-7 and 10

Substance name	No.	IEC62474 Exemptions ID	Description (Exemption Description)	Product Categories
			constant running conditions, — designed to fully operate with non-electrical heater	
Hexavalent Chromium	9(a)-III	00122-A-00	Up to 0,7 % hexavalent chromium by weight, used as an anticorrosion agent in the working fluid of the carbon steel sealed circuit of gas absorption heat pumps for space and water heating	1
Lead	13(a)	00059-B-00	Lead in white glasses used for optical applications	1 to 11
Cadmium, Lead	13(b)	00064-B-00	Cadmium and lead in filter glasses and glasses used for reflectance standards	8 to 11 (excluding 10)
Lead	13(b)-(I)	00066-A-00	Lead in ion coloured optical filter glass types	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	1 to 7 and 10
Cadmium, Lead	13(b)-(III)	00068-A-00	Cadmium and lead in glazes used for reflectance standards	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	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 mm2 or larger in any semi-conductor technology node; — stacked die packages with die of 300 mm2 or larger, or silicon interposers of 300 mm2 or larger.	1 to 7 and 10
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)	1 to 11
Lead	18(b)-I	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	5 and 8
Lead	24	00079-B-00	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	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).	1 to 11 (excluding 8 and 9)
Lead	32	00087-B-00	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	1 to 10
Lead	34	00089-B-00	Lead in cermet-based trimmer potentiometer elements	1 to 11
Cadmium	39(b)	00121-A-00	Cadmium in downshifting semiconductor nanocrystal quantum dots directly deposited on LED semiconductor chips for use in display and projection applications (< 5 µg Cd per mm2 of LED chip surface) with a maximum amount per device of 1 mg	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.	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	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	11

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 the azbil Group Products (Including Packaging Materials)"

③ Other

Please note that the survey may also be conducted using a form requested by an the 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 Substances examples

For specific examples of "restricted substances," please refer to the latest chemSHERPA Managed Substance List. In this list, you can search for “Substance Group” and “Specific Substance” using the IEC62474 DSL-ID from Table 4.1 as a key.

The Managed Substance List is available in the following file:

chemSHERPA_Managed_substance_list_Ver*.**.**_EN.xlsx

Sheet name: IC02_IEC62474

This file can be downloaded from the chemSHERPA Data Creation Support Tool website.

Download site: https://chemsherpa.net/english/tool

[Revision history]

Version	Details of revision	Revision date
Ver. 2	The control level of substances was changed from contained substances (Level 4) to substances to be reduced (Level 3). 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. 4. The investigations on “common electric items” were added to the Investigation details and were modified.	November 10, 2006
Ver. 3	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.	November 21, 2006
Ver. 4	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.	December 12, 2006
Ver. 5	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.	January 16, 2007 Rev. 0
Ver. 6	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 I45were 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.	July 18, 2008 Rev.1

Version	Details of revision	Revision date
Ver. 7	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. Polyvinylchloride (PVC), cobalt chloride, dimethyl fumarate (DMF) were added to 3.4, "Packaging materials that are subject to control." 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. I46 was added to the examples of uses of regulated substances in 3.6. The descriptions in 4, "Investigation details" were reviewed. 5. Annexure Annex Table 2 HCFC and Annex Table 3 HBFC were eliminated and the contents were consolidated into Annex Table 5. Substances in Annex Table 5 Chemical Substance Examples (Level 1) were reviewed. Annex Table 6 Chemical Substance Examples (Level 4)-Brominated flame retardants (excluding PBBs, PBDEs, and HBCDDs) was added. Annex Table 7 Chemical Substance Examples (Level 4): Radioactive materials (radioisotopes) was added.	April 2010 Rev.2
Ver. 8	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 2. Revisions due to changes on substances subject to control were reflected Prohibited substances I47-I51 were added 3. Changes to exemptions from RoHS were reflected Table 6 The azbil Group's list of items exempted from RoHS was updated. 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. 5. Review of the chemical substances control list Annex Table 6 Chemical Substance Examples (Level 1) was reviewed. 6. Corrections of errors and alteration of descriptions	July 2011 Rev.3
Ver. 8.1	1. Corporate Name Change to Azbil Corporation 2. The latest SVHC (73 substances) under REACH were updated	April 2012 Rev.4
Ver. 9	Fixed the description of terms Added I52–I55 to <Level 1> Resurrected <Level 2>, and added I56–I59 (phthalic acid esters 4 substances) Table 6 on RoHS exemptions was updated Example substances were added in Annex 5 and Annex 9 Annex 4 and Annex 8 was deleted. Annex numbers were arranged.	Dec. 2015 Rev5
Ver10	Chemical substance list to be referred to was changed from JIG - 101 (discontinued) to international standard IEC 62474, and related changes were made. Substances (group) to be excluded were deleted. Items to be exempted by EU RoHS Directive Annex III were revised.	May 2019 Rev6

Version	Details of revision	Revision date
Ver11	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. 2. Restricted substances I60, I61 were added. 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. 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." 5. Regarding the survey of chemical substances contained in purchased products, the survey by chemSHERPA was defined and Table 9 was deleted.	October 2020 PQ000001 Rev.0
Ver12	1. Restricted substances I62, I63 were added. 2. Updated Tables 4.1, 4.3, and 6.1.	November 2022 PQ000001 Rev.1
Ver13	1. Restricted substances I64, I65 were added, Advance notice of restricted substances I66, I67 were added. 2. Updated Table 4.1, inserted Table 4.2 (renumbered tables after 4.3), updated Table 6.1.	October 2023 PQ000001 Rev.2
Ver14	1. Restricted substances I66, I67 were added. 2. Updated Tables 4.1, 4.2,4.4, 6.1 and 6.2.	April 2024 PQ000001 Rev.3
Ver14.1	1. Advance notice of restricted substances I68, I69 were added. 2. The Substance Examples list has been discontinued and replaced with an external reference to the chemSHERPA Managed Substances List. 3. Updated Tables 4.2 and 4.4	September 2025 PQ000001 Rev.4

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Published by:
Expert Committee for Product Environmental Regulations,
Azbil Corporation