

JANOME Group  
Green Procurement Guidelines  
<Ver. 4.5>

January 24, 2024 (Ver. 4.5)

Additions to the text are shown in red

JANOME Corporation

## Table of Contents

1. Environmental Preservation Activities .....	1
2. JANOME Group Environmental Policy .....	2
3. Scope of Application.....	3
4. Terms and Definitions.....	4
5. Request to Suppliers.....	9
5.1. Evaluation of Suppliers' Environmental Preservation Activities.....	9
5.2. Management of Information on Chemical Substances in Products.....	9
5.2.1. Details about Prohibited Substances.....	10
5.2.2. Details about Substances to Be Managed.....	11
5.2.3. Reporting of Chemical Substances in Products.....	12
6. Operation Flow.....	13
7. History of Revisions .....	14
Forms Form 1 Environmental Preservation Evaluation Check Form .....	16
Attachments	
Table 1 Prohibited Substances (RoHS Directive) .....	17
Table 1-1 Prohibited Substances (RoHS Directive details) .....	19
Table 2 Prohibited Substances (Excluding RoHS).....	21
Table 2-1 Prohibited Substances (Excluding RoHS details) .....	24
Table 3 RoHS Directive Exemption Items List (Common).....	31
Table 4 RoHS Directive Exemption Items List (Category 8 · 9) .....	42
Table 5 <b>【Reference】</b> REACH Regulation Candidate List of Substances of Very High Concern for Authorisation (SVHC) .....	47

## **1. Environmental Preservation Activities**

The JANOME Group (hereafter referred to as the “Group”) set the “Environmental Policy” to carry out proper environmental management. The Group has been promoting its environmentally conscious corporate activities from product development to manufacture and sales.

To keep up our efforts, the Group has issued the “JANOME Group Green Procurement Guidelines” (hereafter referred to as the “Guidelines”) that set forth Group’s green procurement standards. When both the Group and its suppliers conform to these Guidelines and legal environmental requirements in countries throughout the world, we are committed to providing more eco-friendly products to customers. Your understanding and corporation would be greatly appreciated.

## **2. JANOME Group Environmental Policy**

### **Basic Principle**

The JANOME Group gives consideration to environmental conservation in its business activities and contributes to the sustainable development of society, with the recognition that “preserving the earth’s environment in pursuit of harmony between people and nature” is one of the greatest challenges facing human society.

### **Policy**

We will strive to:

1. Reduce CO<sub>2</sub> emissions through our production activities, products and provision of services.
2. Save resources and energy by promoting the 3Rs (reduce, reuse, recycle) in all our business processes.
3. Create eco-friendly products and services that contribute to society by reducing impact on the environment.
4. Manage harmful substances that could cause risk to human health and the environment carefully.
5. Disclose information on our environmental initiatives proactively.

### 3. Scope of Application

These Guidelines apply to the following ①～④ items. It also apply to chemical substances that are assumed to adhere to or remain at the time of delivery.

- ① Parts used for products manufactured by Janome Group
  - Parts  
(e.g., electric and electronic part, printed circuit board, structural part, pressed part, sintered part, plated part, mold)
  - Manufacturing materials  
(e.g., steel, plastic, iron powder, aluminum material, electric wire)
  - Mixtures  
(e.g., solder, grease, lubricant, antirust oil, adhesive, ink, paint)
  - Subsidiary materials  
(e.g., instruction manual, warranty card, DVD)
  - Packaging materials  
(e.g., cardboard, plastic bag, polyester band, compound wooden material, fastening material for packaging, foam material)
  - Parts provided by customers
- ② Parts designed and manufactured by the suppliers for the Janome Group and sold under the Janome Group's trade mark
- ③ Products purchased from suppliers and sold as they are by the Janome Group
- ④ Promotional goods

The Guidelines do not apply to chemical substances used in research & development, manufacturing processes, packaging materials used only at the time of delivery, equipment and facilities and office supplies.

## 4. Terms and Definitions

Terms used in these Guidelines are defined as follows:

### ① RoHS Directive

RoHS is an abbreviation for the Restriction of the use of certain hazardous substances in electrical and electronic equipment. This Directive was promulgated on February 13, 2003. On July 1, 2011, the revised Directive was published (RoHS 2). The old Directive was then expired on March 1, 2013. Article 4 (Annex II) specifies lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl), and PBDE (polybrominated diphenyl ether) as certain hazardous substances, which should not be contained in products put on the EU market on and after July 1, 2006.

On June 4, 2015, The European Commission delegated Directive (EU) 2015/863 amending Annex II to Directive 2011/65/EU as regards the list of restricted substances. With this amendment DEHP (butyl benzyl phthalate), BBP (bis(2-ethylhexyl) phthalate), DBP (dibutyl phthalate) and DIBP (diisobutyl phthalate) have been added to the present substances. This is effective from July 22, 2019, and accordingly, marketing of products inclusive of these substances will be restricted from that date.

### ② REACH Regulation

REACH is an abbreviation for the Registration, Evaluation, Authorisation, and Restriction of Chemicals. REACH, a comprehensive regulation on chemical substances, entered into force on June 1, 2007. This regulation requires all companies manufacturing or importing chemicals into the European Union to register chemical substances with the European Chemicals Agency and evaluate these substances. The regulation also requires the authorisation or prohibition of substances that have potential negative impacts, such as

carcinogenicity, on human health and the environment.

③ Homogeneous materials

A homogeneous material is one that cannot be mechanically disjointed into different materials.

Examples: Each type of plastic, ceramic, glass, metal, plating, paper, printed-circuit board without components and coating

④ Substances of very high concern (SVHC)

They are substances listed in the Candidate List of Substances of Very High Concern for Authorisation, which is referred to as “SVHC” in general. It is required to control the risks from them properly and replace them progressively with safer alternative substances. They are identified through a prescribed procedure from among carcinogenic substances, mutagenic substances, reproduction toxic substances (CMR); persistent, bio-accumulative and toxic substances (PBT); very persistent and very bio-accumulative substances (vPvB); and others which have endocrine disrupting properties, etc. The European Chemicals Agency publicizes additional substances about twice a year (240 substance groups, as of January 2024). In the future, they may be included in Annex XIV (List of Substances Subject to Authorisation) of REACH.

⑤ CAS RN (CAS Registry Number)

CAS is an abbreviation for Chemical Abstracts Service. CAS numbers, which uniquely identify chemical substances, are assigned by the chemical substance registration system operated and managed by CAS, a division of the American Chemical Society.

⑥ Article

Refers to an object which during production is given a special shape, surface or design, which determines its end use function to a greater degree than does its chemical function.

Examples: sewing machine, tabletop robot, personal computer, TV, electronic components (capacitor, filter, lamp), other parts (screw, O-ring) and non-assembled constituent objects of parts

Examples of items not considered as articles: toner contained in a toner cartridge, ink in a ball-point pen, canned lubricant or petroleum products (These are considered as mixture in containers.)

⑦ Chemicals

Chemical substances and/or mixtures.

⑧ Chemical substance

A chemical element and its compounds in the natural state or obtained by any manufacturing process.

Examples: lead (chemical element), salt oxide (compound) and polyvinyl chloride (compound)

⑨ Mixture

A mixture made by intentionally mixing two or more chemical substances. Also called Preparation.

Examples: solder before use, paint, ink, adhesive and alloy

⑩ Intended release

- The substance is intended to be released when it is indispensable for an article to realize its end use function. In other words, if the substance is not released, the article will not function sufficiently.



Examples: ink released from a felt-tipped pen,  
detergent released from glass-cleaning wipers

- The release is intended when it contributes to the quality or an accessory function of the article. In other words, the release contributes to the added value of the article, which is not directly connected to the end use function.

Example: smell released from a scented eraser

⑪ JAMP

Acronym for the Joint Article Management Promotion Consortium

JAMP is a cross-industry consortium that manages information on chemical substances contained in articles. JAMP establishes and promotes systems for the smooth information disclosure and transmission in the supply chain

⑫ chemSHERPA

A new scheme of transmitting information on chemical substances in products. chemSHERPA was developed under the direction of the Ministry of Economy, Trade and Industry. “chemSHERPA-CI (xxx.shci)” is for transmission of information on chemicals and “chemSHERPA-AI (xxx.shai)” is for transmission of information on articles. Refer to the following URL for details.

URL : <https://chemsherpa.net/english>

⑬ TSCA

TSCA is an abbreviation for Toxic Substances Control Act. This Act was promulgated on January 1, 1977. On June 22, 2016, the major revised Act was published. TSCA is a U.S. law aimed at preventing unreasonable risks of harm to human health or the environment from hazardous chemicals. It regulates "chemicals or articles containing chemicals" manufactured, processed, distributed, used, disposed and imported into the United States,

and applies to individuals and companies.

Article 6(h) applies to articles containing PBT substances. The five PBT substances are decaBDE (decabromodiphenyl ether), PIP(3:1) (tris (isopropylphenyl) phosphate), 2,4,6-TTBP (2,4,6-tri-tert-butylphenol), PCTP (pentachloro thiophenol), and HCBd (hexachlorobutadiene). The production, processing and commercial distribution of chemicals and articles containing these substances are prohibited and restricted.

## **5. Request to Suppliers**

To promote conformance with these Guidelines in cooperation with suppliers, the Group is conducting “evaluation of suppliers’ environmental preservation activities” and “management of information on chemical substances in products”. Suppliers are kindly asked to fill in and submit survey results for required survey items.

These Guidelines include major legal environmental requirements pertaining to the manufacturing materials, parts, subsidiary materials, and packaging materials that constitute the Group’s products. Note that the Guidelines do not cover all legal environmental requirements for materials, parts, and products in countries throughout the world.

### **5.1. Evaluation of Suppliers’ Environmental Preservation Activities**

To flesh out the environmental principle based on the Group’s environmental policy, suppliers are requested to acquire environmental management system certifications (e.g., ISO14001). A supplier not certified by any third-party certification body may have to undergo audits by the Group.

Each supplier is asked to self-evaluate their environmental management system using the “Environmental Preservation Evaluation Check Form” (Form 1) and submit the form.

### **5.2. Management of Information on Chemical Substances in Products**

The Group manages chemical substances in products, classifying them into the following two groups:

① Prohibited substances

Substances presently banned from use in products by conventions, laws, and regulations; substances for which maximum concentrations are specified; substances whose inclusion in products will be prohibited after specified time limits. The Group defines substances prohibited by RoHS Directive and by any other standards as its “prohibited substances”. Note that the Group adapts exemption items (Table 3 and Table 4) applicable to the ten substances which are restricted to put on the market by the RoHS requirements.

② Substances to be managed

Substances that require tracking of content amounts, etc. to promote the appropriate management of chemicals. No restrictions are placed on intentional use of these substances, but the presence/absence and concentration of each substance must be monitored. The Group adapts the chemSHERPA declarable substances.

### **5.2.1. Details about Prohibited Substances**

Table 1 and Table 2 show substances banned from use in parts, materials, packaging materials, etc. that constitute Group’s products, and describe the details of prohibition. Inclusion of these substances is prohibited in products or upper limit concentrations are specified by conventions, laws, and regulations. Some of these substances have time limits after which inclusion will be prohibited. The RoHS Directive regulates six substances — lead, mercury, cadmium, hexavalent chromium, PBB (polybrominated biphenyl), PBDE (polybrominated diphenyl ether), DEHP (bis(2-ethylhexyl) phthalate), BBP (butyl benzyl phthalate), DBP (dibutyl phthalate) and DIBP (diisobutyl phthalate). If any of the substances is in homogeneous material of a supplier’s product in excess of the maximum

concentration shown in Table 1, the supplier of the concerned product must report the substance content to the Group. Reporting is required even if exemption of the RoHS requirements is applicable to the substance. With the official announcement by The European Commission on June 4, 2015 the number of the RoHS Directive restricted substances has become 10.

### **5.2.2. Details about Substances to Be Managed**

Substances that require tracking of content amounts in parts, materials, packaging, etc. that constitute Group's products, in order to promote proper management. They conform to the chemSHERPA declarable substances. Table 5, as reference, shows the Candidate List of Substances of Very High Concern for Authorisation (SVHC) under "REACH Regulation" which is one of the relevant standards for management stipulated in chemSHERPA.

The European Chemicals Agency has issued "Guidance on requirements for substances in articles (Version 4.0)" in which it is indicated that "The Candidate List substances (SVHC) concentration threshold of 0.1% w/w applies to every article supplied. This threshold applies to each article of an object made up of more than one article which were joined or assembled together (complex objects)". Accordingly, if SVHC is contained above 0.1% w/w in any single material article, please report the concentration of it to us.

The European Chemicals Agency website<sup>1</sup> publicizes updates to the candidate list of SVHC. Please pay close attention to the latest information.

---

1. URL : <https://echa.europa.eu/candidate-list-table>

### 5.2.3. Reporting of Chemical Substances in Products

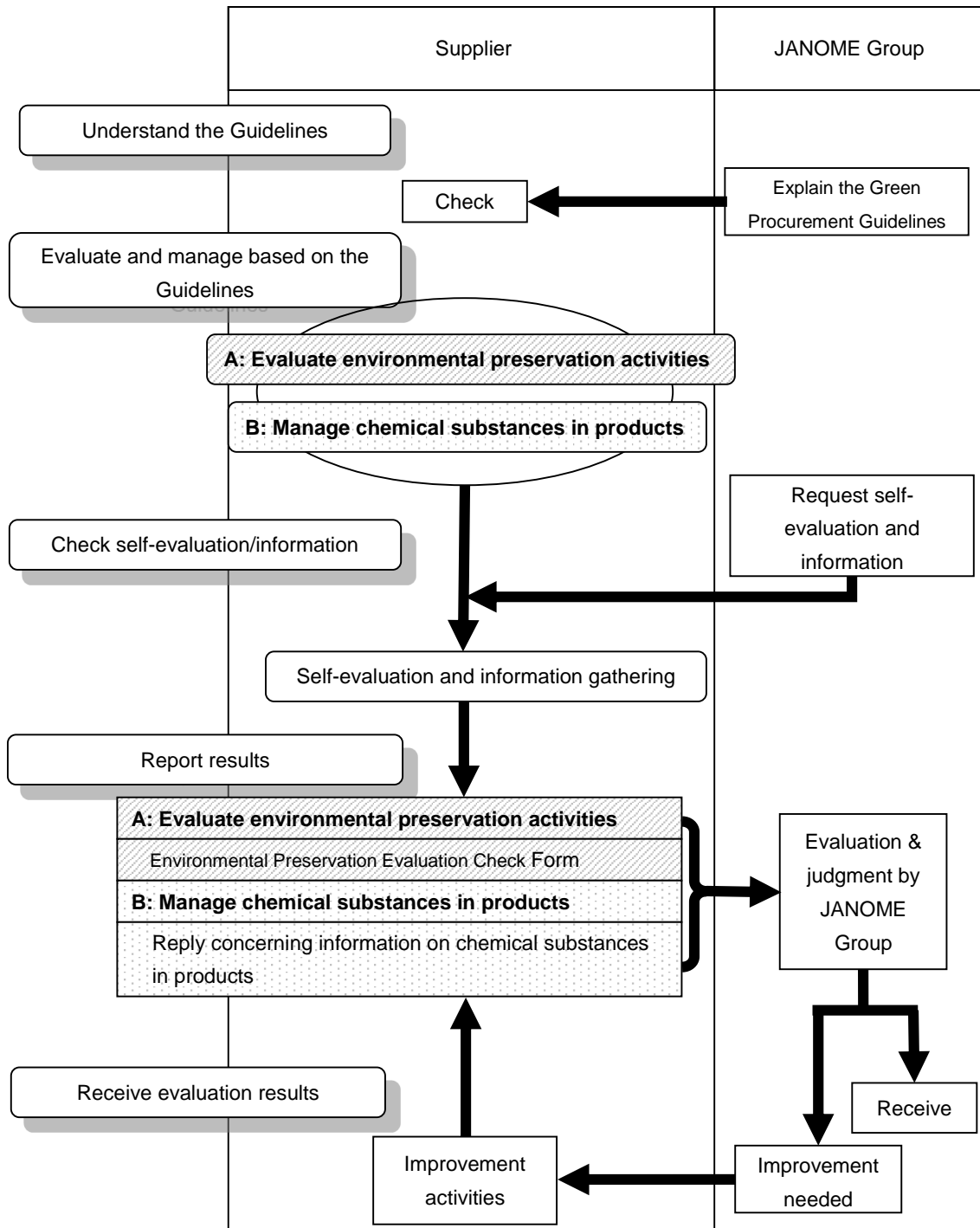
From April 2018, suppliers are requested to conduct surveys and return responses concerning chemical substances, namely (1) prohibited substances and (2) declarable substances, in goods delivered to the Group. In doing so, please use the chemSHERPA format.

- chemSHERPA data entry support tools are available in inputting data.
- For article products, please provide information according to “chemSHERPA-AI” and for chemical products, according to “chemSHERPA-CI”.
- When filling out a “chemSHERPA-AI” form, fill in the “composition information”, “compliance assessment information” and “SCIP information” fields.
- Refer to the chemSHERPA website for data entering method and usage rules.  
URL : <https://chemsherpa.net/english/tool>  
⇒“ Data entry support tool ”  
URL : <https://chemsherpa.net/english/docs/description>  
⇒“ chemSHERPA usage rules ”

Those who wish to use other formats are asked to consult the Group contact in advance.

For the parts, materials etc., which are not manufactured by suppliers, we need suppliers to obtain the related data from upstream companies in the supply chain and check them. Through periodic additions of SVHC substances etc., the number of the chemical substances of which measurement is laborious is increasing. Accordingly, we would like to ask suppliers to acquire included chemical substances data.

## 6. Operation Flow



## 7. History of Revisions

No.	Month/Year	Contents
First edition	July 2011	Established
Ver. 1.1	July 2012	<ul style="list-style-type: none"> <li>• Clerical errors are corrected.</li> <li>• The format to report chemical substances in products as AIS (JAMP) is unified.</li> <li>• A correspondence box in Form 1 and Form 2 is added.</li> <li>• The clause of exemption items is added.</li> <li>• RoHS Directive Exemption Items List is added.</li> <li>• Tables 1, 1-1, 2, 2-1 and 2-2 are updated.</li> <li>• The back cover is added.</li> </ul>
Ver. 1.2	March 2013	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.3	August 2013	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.4	January 2014	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.5	July 2014	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.6	February 2015	<ul style="list-style-type: none"> <li>• Table 1-2 is updated.</li> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.7	September 2015	<ul style="list-style-type: none"> <li>• Revision of Environmental Policy</li> <li>• Tables 1 and 1-1 are added PAHs.</li> <li>• Table 2-2 is updated.</li> <li>• Table 3 is updated.</li> </ul>
Ver. 1.8	December 2015	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 1.9	July 2016	<ul style="list-style-type: none"> <li>• An explanation on the RoHS added substances has been added.</li> <li>• A request to suppliers for collection of chemical substances data has been added.</li> <li>• A request has been added to 5.3.</li> <li>• Tables 1-2 and 2-2 are updated.</li> </ul>
Ver. 2.0	January 2017	<ul style="list-style-type: none"> <li>• Table 2-2 is updated.</li> </ul>
Ver. 2.1	September 2017	<ul style="list-style-type: none"> <li>• Revisions of “Environmental Preservation Activities”, “Terms and Definitions” and “Details about Substances to be Managed”.</li> <li>• Tables 1-2 and 2-2 are updated.</li> </ul>
Ver. 2.2	February 2018	<ul style="list-style-type: none"> <li>• Link destination of SIN List is updated.</li> <li>• Tables 2-2 is updated.</li> <li>• Table 3 is updated.</li> </ul>
Ver. 3.0	September 2018	<ul style="list-style-type: none"> <li>• Reviewed content by introducing chem-SHERPA.</li> <li>• Delete declaration not to use prohibited substances.</li> <li>• Revised Appendix and Update.</li> <li>• Delete substances subject to reduction.</li> </ul>



Ver. No.	Month/Year	Contents
Ver. 3.1	January 2019	• Table 5 is updated.
Ver. 3.2	March 2019	• Table 3 and 4 are updated.
Ver. 3.3	August 2019	• Reviewed of scope of application. • Table 5 is updated.
Ver. 3.4	January 2020	• Table 3, 4 and 5 are updated.
Ver. 3.5	April 2020	• Table 3 and 4 are updated.
Ver. 3.6	July 2020	• Table 3, 4 and 5 are updated.
Ver. 3.7	February 2021	• Revision of 5.2.3. (The following are deleted.) • We generally do not give suppliers a file to fill out; therefore, suppliers are kindly asked to send us survey results voluntarily (“voluntary data provision”) instead of upon request (“data provision upon request”). • In “Product Name” and “Product Number” fields, fill in the product name of the Group and the nine-digit part number, respectively. • Table 3, 4 and 5 are updated.
Ver. 3.8	August 2021	• Table 3, 4 and 5 are updated.
Ver. 4.0	October 2021	• Change of the company name. (Front cover, Form 1, Back cover)
Ver. 4.1	March 2022	• p.3, p.6 "Preparation" is corrected to "Mixture". • Added explanation about chemicals and TSCA. • Table 1, 1-1, 2, 2-1, 4 and 5 are updated.
Ver. 4.2	July 2022	• Table 2-1, 3, 4 and 5 are updated.
Ver. 4.3	April 2023	• Added chemSHERPA extension. • Table 2, 3, 4 and 5 are updated.
Ver. 4.4	July 2023	• Added SCIP information • Table 3, 4 and 5 are updated.
Ver. 4.5	January 2024	• Table 2, 2-1, 3, 4 and 5 are updated.

To: JANOME Corporation

### Environmental Preservation Evaluation Check Form

#### 1. Environmental preservation management system

Reply...○ : Yes   Δ : Planned   × : No   - : Not applicable

	Survey Item	Reply	Remarks
①	Certified under ISO14001		
②	An environmental management system is constructed under other third-party certification		
③	Corporate principles, policies, standards, goals, etc. are established pertaining to environmental preservation.		
④	Roles, responsibilities, and authorities related to environmental preservation are defined clearly.		
⑤	Compliance is obtained with laws, regulations, agreements, etc. related to environmental preservation.		
⑥	Audits are performed on environmental preservation activities.		
⑦	Efforts are made to raise environmental awareness by building environmental management systems, providing in-house training, and conducting PR activities.		
⑧	A system is established to properly check and report 4M* changes.*Man, Machine, Material, Method		
⑨	A system is established to prevent the spread of environmental impact in an emergency.		

#### 2. Environmental preservation activities

Check the appropriate box.

	Survey item	Yes	No
①	Recycling waste.	<input type="checkbox"/>	<input type="checkbox"/>
②	Reducing waste during manufacture.	<input type="checkbox"/>	<input type="checkbox"/>
③	Saving resources.	<input type="checkbox"/>	<input type="checkbox"/>
④	Promoting minimal energy use in manufacture and transport.	<input type="checkbox"/>	<input type="checkbox"/>
⑤	Reducing power consumption and standby power of products and considering the ease of assembly and sorting	<input type="checkbox"/>	<input type="checkbox"/>
⑥	Working on the management of harmful substances that affect people and the environment and considering reducing environmental risks	<input type="checkbox"/>	<input type="checkbox"/>

Date issued: \_\_\_\_\_ (mm/dd/yyyy)

Name of company: \_\_\_\_\_

Address: \_\_\_\_\_

Contact person \_\_\_\_\_

Department: \_\_\_\_\_

Print name : \_\_\_\_\_

Signature: \_\_\_\_\_

Phone: \_\_\_\_\_

Correspondence box

Receiving date

Control No

-----

-----

-----

-----

Table 1 Prohibited Substances 《 RoHS Directive (2011/65/EU) 》

Substance/Category	Reportable Application(s)	Threshold Level
Lead/lead compounds	All, except (a) to (e)	0.1% by weight (1,000 ppm) of lead in homogeneous materials <sup>*1)</sup>
	(a) Consumer products designed or intended primarily for children 12 years of age or younger	0.01% by weight (100 ppm) of lead in the children's product <sup>*2)</sup>
	(b) Paint and similar surface coatings of toys and other articles intended for use by children	0.009% by weight (90 ppm) of lead in surface coating <sup>*2)</sup>
	(c) Articles intended for use by the public that small children may put into their mouths under normal or reasonably foreseeable conditions	0.05% by weight (500 ppm) of lead in homogeneous materials <sup>*3)</sup>
	(d) Cables/cords with thermoset or thermoplastic coatings	0.03% by weight (300 ppm) of lead in surface coating <sup>*4)</sup>
	(e) Batteries	0.004% by weight (40 ppm) of lead in battery <sup>*5)</sup>
Mercury/mercury compounds	All, except batteries	Intentionally added or 0.1% (1,000 ppm) of mercury in homogeneous material <sup>*1)</sup>
	Batteries	Intentionally added or 0.0001% by weight (1 ppm) of mercury in the battery <sup>*5)</sup>
Cadmium/cadmium compounds	All, except batteries	0.01% by weight (100 ppm) of cadmium in homogeneous materials <sup>*1)</sup>
	Batteries	0.001% by weight (10 ppm) of cadmium in battery <sup>*5)</sup>
Chromium (VI) compounds	All	0.1% by weight (1,000 ppm) of chromium (VI) in homogeneous materials <sup>*1)</sup>
Polybrominated biphenyls (PBBs)	All, except as noted below	0.1% by weight (1,000 ppm) in homogeneous material
	Textile articles intended to come into contact with the skin	Prohibited to contain <sup>*3)</sup>
Polybrominated diphenylethers (PBDEs)	All	Intentionally added or 0.1% by weight (1,000 ppm) in homogeneous material <sup>*8)</sup>
Bis(2-ethylhexyl) phthalate (DEHP)	All	0.1% by weight (1,000 ppm) in homogeneous material <sup>*6,7)</sup>
Benzyl butyl phthalate (BBP)	All	0.1% by weight (1,000 ppm) in homogeneous material <sup>*6,7)</sup>
Dibutyl phthalate (DBP)	All	0.1% by weight (1,000 ppm) in homogeneous material <sup>*6,7)</sup>
Diisobutyl phthalate (DIBP)	All	0.1% by weight (1,000 ppm) in homogeneous material <sup>*6,7)</sup>

\*1) For parts, materials and subsidiary materials used in packaging materials and packaging auxiliary materials, the threshold level of lead, cadmium, mercury and hexavalent chromium shall be 100 ppm by weight or less in total, in accordance with Directives 94/62/EC, 2004/12/EC and 2013/2/EU of the European Parliament and of the Council on packaging and packaging waste.

\*2) The concentration of lead in products intended for children is set in accordance with the US Consumer Product Safety Improvement Act and its amendment (H.R.2715).

\*3) The threshold is set in accordance with the REACH Regulation (EC) No 1907/2006 Annex XVII.

- \*4) The concentration of lead in cables/cords shall be 300 ppm or less in accordance with the Proposition 65 cases.
- \*5) The battery reporting threshold level is based on the strictest known legal requirement. However, for simplification, the same reporting threshold level is set for all kind of batteries, even if the underlying requirement is only one specific battery type.
- \*6) For substances used in toys or childcare equipment, the threshold level of DEHP, BBP, DBP and DIBP in total shall be 0.1% by weight (1,000 ppm) or less of plasticized materials, in accordance with the REACH Regulation (EC) No 1907/2006 Annex XVII.
- \*7) Putting products inclusive of the substance on the EU market will be restricted on and after July 22, 2019 according to the Directive (EU) 2015/863.
- \*8) decaBDE-containing products or article is profibited under TSCA Article 6 (h).

Table 1-1 Prohibited Substances « RoHS Directive details »

Substance/Category	Substance name	CAS RN
Lead/lead compounds	Lead	7439-92-1
	Lead(II) sulfate	7446-14-2
	Lead(II) carbonate	598-63-0
	Lead(II) chromate	7758-97-6
	Lead chromate molybdate sulphate red	12656-85-8
	Lead acetate	301-04-2
	Lead(II) acetate, trihydrate	6080-56-4
	Lead phosphate	7446-27-7
	Lead selenide	12069-00-0
	Lead(IV) oxide	1309-60-0
	Lead(II,IV) oxide	1314-41-6
	Lead(II) sulfide	1314-87-0
	Lead(II) oxide	1317-36-8
	Lead(II) carbonate basic	1319-46-6
	Lead hydroxidcarbonate	1344-36-1
	Lead(II) phosphate	7446-27-7
	C.I. Pigment Yellow 34	1344-37-2
	Lead(II) titanate	12060-00-3
	Lead sulfate,sulphuric acid, lead salt	15739-80-7
	Lead sulphate,tribasic	12202-17-4
Lead stearate	1072-35-1	
Other lead compounds	—	
Mercury/mercury compounds	Mercury	7439-97-6
	Mercuric chloride	33631-63-9
	Mercury(II) chloride	7487-94-7
	Mercuric sulfate	7783-35-9
	Mercuric nitrate	10045-94-0
	Mercury(II) oxide	21908-53-2
	Mercuric sulfide	1344-48-5
	Other mercury compounds	—
Cadmium/cadmium compounds	Cadmium	7440-43-9
	Cadmium oxide	1306-19-0
	Cadmium sulfide	1306-23-6
	Cadmium chloride	10108-64-2
	Cadmium sulfate	10124-36-4
	Other cadmium compounds	—
Chromium VI compounds	Chromium(VI) oxide	1333-82-0
	Barium chromate	10294-40-3
	Calcium chromate	13765-19-0
	Lead(II) chromate	7758-97-6
	Lead chromate molybdate sulphate red	12656-85-8
	C.I. Pigment Yellow 34	1344-37-2
	Sodium chromate	7775-11-3
	Sodium dichromate	10588-01-9
	Strontium chromate	7789-06-2
	Potassium dichromate	7778-50-9
	Potassium chromate	7789-00-6
	Zinc chromate	13530-65-9

Substance/Category	Substance name	CAS RN
Chromium VI compounds	Pentazinc chromate octahydroxide	49663-84-5
	Potassium hydroxyoctaoxidizincate dichromate	11103-86-9
	Other hexavalent chromium compounds	—
Polybrominated Biphenyls (PBBs)	Polybrominated Biphenyls	59536-65-1
	2-Bromobiphenyl	2052-07-5
	3-Bromobiphenyl	2113-57-7
	4-Bromobiphenyl	92-66-0
	Dibromobiphenyl	92-86-4
	Tribromobiphenyl	59080-34-1
	Tetrabromobiphenyl	40088-45-7
	Pentabrphenyl	56307-79-0
	Hexabromobiphenyl	59080-40-9
	hexabromo-1,1-biphenyl	36355-01-8
	Firemaster FF-1	67774-32-7
	Heptabromobiphenyl	35194-78-6
	Octabromobiphenyl	61288-13-9
	Nonabiphenyl	27753-52-2
Decabromobiphenyl	13654-09-6	
Polybrominated Diphenyl ethers (PBDEs)	Bromodiphenyl ether	101-55-3
	Dibromodiphenyl ether	2050-47-7
	Tribromodiphenyl ether	49690-94-0
	Tetrabromodiphenyl ether	40088-47-9
	Pentabromodidiphenyl ether (note: Commercially available PeBDPO is a complex reaction mixture containing a variety of brominated diphenyloxides.)	32534-81-9 (CAS No. used for commercial grades of PeBDPO)
	Hexabromodiphenyl ether	36483-60-0
	Heptabromodiphenyl ether	68928-80-3
	Octabromodiphenyl ether	32536-52-0
	Nonabromodiphenyl ether	63936-56-1
	Decabromodiphenyl ether (decaBDE)	1163-19-5
Phthalates	Bis (2-ethylhexyl) phthalate (DEHP)	117-81-7
	Butyl benzyl phthalate (BBP)	85-68-7
	Dibutylphthalate (DBP)	84-74-2
	Diisobutylphthalate (DBP)	84-69-5

Table 2 Prohibited Substances « Excluding RoHS »

Substance/Category	Reportable Application(s)	Threshold Level	Referenced laws and regulations
Polychlorinated terphenyls (PCTs)	All	0.005% by weight (50 ppm) in material	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.1)
Asbestos	All	Intentionally added	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.6) • EU POPs REGULATION (EC) No 850/2004 Annex I
Tri-substituted organostannic compounds	All	Intentionally added or 0.1% by weight (1,000 ppm) of tin in a material	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.20(4)) • Chemical Substances Control Law (Japan): Class II Specified Chemical Substances
Tributyl tin oxide (TBTO)	All	Intentionally added	• EU REACH REGULATION (EC) No 1907/2006 Annex XVII (No.20(4)) • Chemical Substances Control Law (Japan): Class I Specified Chemical Substances
Dibutyltin (DBT) compounds	All	0.1% by weight (1,000 ppm) of tin in a material	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.20(5))
Diocetyl tin (DOT) compounds	(a) textile and leather articles intended to come into contact with the skin (b) childcare articles (c) two-component room temperature vulcanisation moulding kits (RTV-2 moulding kits)	0.1% by weight (1,000 ppm) of tin in a material	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.20(6))
Polychlorinated biphenyls (PCBs) and specific substitutes	All	Intentionally added	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.24~26) • EU POPs REGULATION (EC) No 850/2004 Annex I
Azocolourants and azodyes which form certain aromatic amines	Textiles and leather	0.003% by weight (30 ppm) of the finished textile/leather product	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.43)
Polycyclic aromatic hydrocarbon (PAHs)	Materials with foreseeable prolonged skin contact ( $\geq 30$ second) or repetitive short term skin contact	0.00005 % by weight (0.5 ppm) of the product	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.50) • German Product Safety Act • EU DIRECTIVE 2009/48/EC
Dimethyl fumarate (DMF)	All	0.00001% by weight (0.1 ppm) in a material	• EU REACH REGULATION (EC) No 1907/2006 ANNEX XVII (No.61)
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	All	Intentionally added or 0.01% by weight (100 ppm) of the product	• EU POPs REGULATION (EC) No 2019/1021 Annex I • Chemical Substances Control Law (Japan): Class I Specified Chemical Substances

Substance/Category	Reportable Application(s)	Threshold Level	Referenced laws and regulations
Hexachlorobenzene (HCB)	All	Intentionally added	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
Polychlorinated naphthalenes (more than 2 chlorine atoms)	All	Intentionally added	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
Shortchain chlorinated paraffins (C10-C13)	All	Intentionally added or 0.15% by weight (1,500 ppm) of the product	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
Perfluorooctanoic acid (PFOA), its salts and related compounds	All	Intentionally added or 0.000025 mass% (25ppb) of PFOA including its salts in article or mixture	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
	All	Intentionally added or 0.0001 mass% (1ppm) of one or a combination of PFOA-related compounds, in article or mixture	
Perfluorooctane sulfonic acid (PFOS)	All, except as noted below	Intentionally added or 0.1% of the part (as the sum of PFOS) of the material	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
	Textiles or other coated materials	Intentionally added or 1µg/m <sup>2</sup> of coated material	
Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	All, except as noted below	Intentionally added or 0.000025% by weight (25 ppb) of PFHxS and its salts in articles or mixtures	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
	All, except as noted below	Intentionally added or 0.0001% by weight (1 ppm) of all PFHxS-related compounds in articles or mixtures	
	Concentrated firefighting foam mixtures or other firefighting foam mixtures	Intentionally added or 0.0001 mass% (100 ppb) of PFHxS, its salts and PFHxS-related compounds, in article or mixture	
Fluorinated greenhouse gases (PFC, SF <sub>6</sub> , HFC)	All	Intentionally added	<ul style="list-style-type: none"> <li>• EU REGULATION (EC) No 842/2006</li> <li>• Act on Promotion of Global Warming Countermeasures (Japan)</li> </ul>



Substance/Category	Reportable Application(s)	Threshold Level	Referenced laws and regulations
Ozone depleting substances	All	Intentionally added	<ul style="list-style-type: none"> <li>• Montreal Protocol</li> <li>• Law concerning the Protection of the Ozone Layer through the Control of Specified Substances and Other Measures</li> </ul>
Radioactive substances	All	Intentionally added	<ul style="list-style-type: none"> <li>• EU DIRECTIVE 96/29/Euratom</li> <li>• Japan Law Concerning Prevention from Radiation Hazards</li> </ul>
Formaldehyde	Composite wood (plywood, particle board, medium density fiberboard) products or components	Intentionally added	<ul style="list-style-type: none"> <li>• US/CA CARB Regulation</li> </ul>
	Textiles	0.0075% by weight (75 ppm) of textile product	<ul style="list-style-type: none"> <li>• Austria-BGB I 1990/194</li> <li>• Formaldehyde Restriction §2, 12/2/1990</li> </ul>
2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol	All	No threshold	<ul style="list-style-type: none"> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> </ul>
Decabromodiphenyl ether (decaBDE)	All	No threshold	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• Chemical Substances Control Law (Japan): Class I Specified Chemical Substances</li> <li>• US TSCA Section 6(h)</li> </ul>
Phenol, isopropylated phosphate (3:1) (PIP (3:1))	All, except as noted below	Applies to 1 November 2024 No threshold (Prohibited to contain)	<ul style="list-style-type: none"> <li>• US TSCA Section 6(h)</li> </ul>
	(a) Adhesives and sealants	Applies to 6 January 2025 No threshold (Prohibited to contain)	
	(b) Photographic printing (b) articles	No threshold (Prohibited to contain)	
2,4,6-Tris(tert-butyl)phenol (2,4,6-TTBP)	All, except as noted below	Applies to 6 January 2026 Above 0.3% by weight (3,000ppm) in containers with a volume of less than 35 gallons	<ul style="list-style-type: none"> <li>• US TSCA Section 6(h)</li> </ul>
	Oil, lubricant additives	Applies to 6 January 2026 0.3% by weight (3,000ppm) of the ingredients <sup>**1)</sup>	
Pentachlorothiophenol (PCTP)	All	0.1% by weight (1,000 ppm) of the component	<ul style="list-style-type: none"> <li>• US TSCA Section 6(h)</li> </ul>
Hexachlorobutadiene (HCBD)	All	No threshold (Prohibited to contain)	<ul style="list-style-type: none"> <li>• EU POPs REGULATION (EC) No 2019/1021 Annex I</li> <li>• US TSCA Section 6(h)</li> </ul>

Table 2-1 Prohibited substances « Excluding RoHS details »

Substance/Category	Substance name	CAS RN
Polychlorinated terphenyls (PCTs)	Polychlorinated Terphenyls (all isomers and congeners)	61788-33-8
Asbestos	Asbestos	1332-21-4
	Actinolite	77536-66-4
	Amosite (Grunerite)	12172-73-5
	Anthophyllite	77536-67-5
	Chrysotile	12001-29-5
	Crocidolite	12001-28-4
	Tremolite	77536-68-6
Tri-substituted organostannic compounds	Triphenyltin=N,N-dimethyldithiocarbamate	1803-12-9
	Triphenyltinfluoride	379-52-2
	Triphenyltinacetate	900-95-8
	Triphenyltinchloride	639-58-7
	Triphenyltinhydroxide	76-87-9
	Triphenyltin fattyacid ((9-11)salt)	18380-71-7 18380-72-8 47672-31-1 94850-90-5
	Triphenyltinchloroacetate	7094-94-2
	Tributyltinmethacrylate	2155-70-6
	Bis(tributyltin)fumalate	6454-35-9
	Tributyltinfluoride	1983-10-4
	Bis(tributyltin)2,3-dibromosuccinate	31732-71-5
	Tributyltinacetate	56-36-0
	Tributyltinlaurate	3090-36-6
	Bis(tributyltin)phthalate	4782-29-0
	Copolymer of alkyl (c=8) acrylate, methyl methacrylate and tributyltin methacrylate	67772-01-4
	Tributyltinsulfamate	6517-25-5
	Bis(tributyltin)maleate	14275-57-1
	Tributyltinchloride	1461-22-9 7342-38-3
	Tributyltin cyclopentane carbonate=mixture	85409-17-2
	Tributyltin-1, 2,3,4,4a,4b,5,6,10,10a-decahydro-7-isopropyl-1,4a-dimethyl-1-phenanthrenecarboxylatemix	26239-64-5
Other tri-substituted organostannic compounds	—	
Tributyl tin oxide (TBTO)	Tributyltin oxide (TBTO)	56-35-9
Dibutyltin (DBT) compounds	Dibutyltin oxide	818-08-6
	Dibutyltin diacetate	1067-33-0
	Dibutyltin dilaurate	77-58-7
	Dibutyltin maleate	78-04-6
	Other dibutyltin compounds	—
Dioctyltin (DOT) compounds	Dioctyl Tin Oxide	870-08-6
	Dioctyltin dilaurate	3648-18-8
	Other Dioctyltin compounds	—
Polychlorinated biphenyls (PCBs) and specific substitutes	Polychlorinated Biphenyls (all isomers and congeners)	1336-36-3
	Monomethyl-tetrachloro-diphenyl methane (Ugilec 141)	76253-60-6
	Monomethyl-dichloro-diphenyl methane (Ugilec 121, Ugilec 21)	81161-70-8
	Monomethyl-dibromo-diphenyl methane (DBBT)	99688-47-8
Azocolourants and azodyes which form certain aromatic amines	biphenyl-4-ylamine	92-67-1
	Benzidine	92-87-5

Substance/Category	Substance name	CAS RN
Azocolourants and azodyes which form certain aromatic amines (cont'd)	4-chloro-o-toluidine	95-69-2
	2-naphthylamine	91-59-8
	o-aminoazotoluene	97-56-3
	5-nitro-o-toluidine	99-55-8
	4-chloroaniline	106-47-8
	4-methoxy-m-phenylenediamine	615-05-4
	4,4'-methylenedianiline	101-77-9
	3,3'-dichlorobenzidine	91-94-1
	3,3'-dimethoxybenzidine	119-90-4
	3,3'-dimethylbenzidine	119-93-7
	4,4'-methylenedi-o-toluidine	838-88-0
	6-methoxy-m-toluidine	120-71-8
	4,4'-methylene-bis(2-chloroaniline)	101-14-4
	4,4'-oxydianiline	101-80-4
	4,4'-thiodianiline	139-65-1
	o-toluidine	95-53-4
	4-methyl-m-phenylenediamine	95-80-7
	2,4,5-trimethylaniline	137-17-7
o-anisidine	90-04-0	
4-amino azobenzene	60-09-3	
Polycyclic aromatic hydrocarbon (PAHs)	Benzo[a]pyrene	50-32-8
	Benzo[e]pyrene	192-97-2
	Benzo[a]anthracene	56-55-3
	Chrysene	218-01-9
	Benzo[b]fluoranthene	205-99-2
	Benzo[j]fluoranthene	205-82-3
	Benzo[k]fluoranthene	207-08-9
	Dibenzo[a,h]anthracene	53-70-3
Dimethyl fumarate (DMF)	Dimethyl fumarate	624-49-7
Hexabromocyclododecane (HBCDD) and all major diastereoisomers	Hexabromocyclododecane (HBCDD)	25637-99-4
	alpha-hexabromocyclododecane	134237-50-6
	beta-hexabromocyclododecane	134237-51-7
	gamma-hexabromocyclododecane	134237-52-8
	1,2,5,6,9,10-hexabromocyclododecane	3194-55-6
	rel-(1R,2S,5R,6S,9R,10S)-1,2,5,6,9,10-hexabromocyclododecane	4736-49-6
	rel-(1R,2S,5R,6S,9S,10R)-1,2,5,6,9,10-hexabromocyclododecane	65701-47-5
	(1R,2R,5R,6S,9S,10S)-1,2,5,6,9,10-hexabromocyclododecane	138257-17-7
	(1R,2R,5R,6S,9R,10S)-1,2,5,6,9,10-hexabromocyclododecane	138257-18-8
	(1R,2S,5S,6R,9S,10S)-1,2,5,6,9,10-hexabromocyclododecane	138257-19-9
	(1R,2S,5S,6S,9S,10R)-1,2,5,6,9,10-hexabromocyclododecane	169102-57-2
	(1R,2R,5S,6R,9R,10S)-1,2,5,6,9,10-hexabromocyclododecane	678970-15-5
	(1R,2S,5R,6S,9S,10S)-1,2,5,6,9,10-hexabromocyclododecane	678970-16-6
(1R,2R,5R,6S,9S,10R)-1,2,5,6,9,10-hexabromocyclododecane	678970-17-7	
Hexachlorobenzene (HCB)	Hexachlorobenzene	118-74-1
Polychlorinated naphthalenes (more than 2 chlorine atoms)	Polychlorinated Naphthalenes	70776-03-3
	Other polychlorinated Naphthalenes	—
Shortchain chlorinated paraffins (C10-C13)	Alkanes, C10-13, chloro	85535-84-8
	Alkanes, C10-12, chloro	108171-26-2
	Alkanes, C12-13, chloro	71011-12-6
	Alkanes, chloro	61788-76-9
	Other Short Chain ChlorinatedParaffins	—

Substance/Category	Substance name	CAS RN
Perfluorooctanoic acid (PFOA) and its salts	Perfluorooctanoic acid (PFOA)	335-67-1
	Ammonium perfluorooctanoate	3825-26-1
	Sodium perfluorooctanoate	335-95-5
	Potassium perfluorooctanoate	2395-00-8
	Silver perfluorooctanoate	335-93-3
Perfluorooctane sulfonic acid (PFOS) and its salts	Perfluorooctane sulfonic acid	1763-23-1
	Ammonium perfluorooctane sulfonic acid	29081-56-9
	Diethanol ammonium perfluorooctane sulfonic acid	70225-14-8
	Potassium perfluorooctane sulfonic acid	2795-39-3
	Lithium perfluorooctane sulfonic acid	29457-72-5
	Perfluorooctane-1-sulfonamide	754-91-6
Perfluorohexane sulfonic acid (PFHxS), its salts and PFHxS-related compounds	Perfluorohexane sulfonic acid	355-46-4
	Tridecafluorohexane-1-sulfonyl fluoride	423-50-7
	Ammonium tridecafluorohexane-1-sulfonate	68259-08-5
Fluorinated greenhouse gases (PFC, SF <sub>6</sub> , HFC, NF <sub>3</sub> )	Tetrafluoromethane (Carbon tetrafluoride, PFC-14)	75-73-0
	Hexafluoroethane (PFC-116)	76-16-4
	Octafluoropropane (PFC-218)	76-19-7
	Decafluorobutane (PFC-31-10)	355-25-9
	Dodecafluoropentane (PFC-41-12)	678-26-2
	Tetradecafluorohexane (PFC-51-14)	355-42-0
	Octafluorocyclobutane (PFC-c318)	115-25-3
	Sulfur Hexafluoride (SF <sub>6</sub> )	2551-62-4
	Trifluoromethane (HFC-23)	75-46-7
	Difluoromethane (HFC-32)	75-10-5
	Methyl fluoride (HFC-41)	593-53-3
	Pentafluoroethane (HFC-125)	354-33-6
	2H,3H-Decafluoropentane (HFC-43-10mee)	138495-42-8
	1,1,2,2-Tetrafluoroethane (HFC-134)	359-35-3
	1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2
	1,2-Difluoroethane (HFC-152)	624-72-6
	1,1-Difluoroethane (HFC-152a)	75-37-6
	1,1,2-Trifluoroethane (HFC-143 )	430-66-0
	1,1,1-Trifluoroethane (HFC-143a)	420-46-2
	Ethyl fluoride (HFC-161)	353-36-6
	2H-Heptafluoropropane (HFC-227ea)	431-89-0
	1,1,1,2,2,3-Hexafluoropropane (HFC-236cb)	677-56-5
	1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	431-63-0
	1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	690-39-1
	1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679-86-7
	1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460-73-1
	1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406-58-6
Nitrogen trifluoride (NF <sub>3</sub> )	7783-54-2	
Ozone depleting substances	Trichlorofluoromethane (CFC-11)	75-69-4
	Dichlorodifluoromethane (CFC-12)	75-71-8
	Chlorotrifluoromethane (CFC-13)	75-72-9
	Pentachlorofluoroethane (CFC-111)	354-56-3
	Tetrachlorodifluoroethane (1,1,2,2-Tetrachloro-1,2-difluoroethane) (CFC-112)	76-12-0
	1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a)	76-11-9
	Trichlorotrifluoroethane (CFC-113)	26523-64-8
	1,1,2-Trichloro-1,2,2 trifluoroethane (CFC-113b)	76-13-1

Substance/Category	Substance name	CAS RN
Ozone depleting substances (cont'd)	1,1,1-Trichloro-2,2,2 trifluoroethane (CFC-113a)	354-58-5
	Dichlorotetrafluoroethane (CFC-114)	76-14-2
	Monochloropentafluoroethane (CFC-115)	76-15-3
	Heptachlorofluoropropane (CFC-211)	422-78-6
	Heptachlorofluoropropane (CFC-211)	135401-87-5
	1,1,1,2,2,3,3-Heptachloro-3-fluoro-propane (CFC-211aa)	422-78-6
	1,1,1,2,2,3,3-Heptachloro-2-fluoro-propane (CFC-211ba)	422-81-1
	Hexachlorodifluoropropane (CFC-212)	3182-26-1
	Pentachlorotrifluoropropane (CFC-213)	134237-31-3
	1,1,1,3,3-Pentachloro-2,2,3-trifluoropropane (CFC-213)	2354-06-5
	1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoro-propane (CFC-214aa)	—
	1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoro-propane (CFC-214cb)	2268-46-4
	Tetrachlorotetrafluoropropane (CFC-214)	29255-31-0
	Trichloropentafluoropropane (CFC-215)	1599-41-3
	1,2,2-Trichloropentafluoropropane (CFC-215aa)	1599-41-3
	1,2,3-Trichloropentafluoropropane (CFC-215ba)	76-17-5
	1,1,2-Trichloropentafluoropropane (CFC-215bb)	—
	1,1,3-Trichloropentafluoropropane (CFC-215ca)	—
	1,1,1-Trichloropentafluoropropane (CFC-215cb)	4259-43-2
	Dichlorohexafluoropropane (CFC-216)	661-97-2
	Chloroheptafluoropropane (CFC-217)	422-86-6
	Bromochloromethane (Halon-1011)	74-97-5
	Dibromodifluoromethane (Halon-1202)	75-61-6
	Bromochlorodifluoromethane (Halon-1211)	353-59-3
	Bromotrifluoromethane (Halon-1301)	75-63-8
	Dibromotetrafluoroethane (Halon-2402)	124-73-2
	Tetrachloromethane (carbon tetrachloride)	56-23-5
	1,1,1-Trichloroethane (methylchloroform)	71-55-6
	Bromomethane (methyl bromide)	74-83-9
	Bromoethane (ethyl bromide)	74-96-4
	1-Bromopropane (n-propyl bromide)	106-94-5
	Trifluoroiodomethane (trifluoromethyl iodide)	2314-97-8
	Chloromethane (methyl chloride)	74-87-5
	Dibromofluoromethane (HBFC-21B2)	1868-53-7
	Bromodifluoromethane (HBFC-22B1)	1511-62-2
	Bromofluoromethane (HBFC-31B1)	373-52-4
	Tetrabromofluoroethane (HBFC-121B4)	306-80-9
	Tribromodifluoroethane (HBFC-122B3)	—
	Dibromotrifluoroethane (HBFC-123B2)	354-04-1
	Bromotetrafluoroethane (HBFC-124B1)	124-72-1
	Tribromofluoroethane (HBFC-131B3)	—
	Dibromodifluoroethane (HBFC-132B2)	75-82-1
	Bromotrifluoroethane (HBFC-133B1)	421-06-7
	Dibromofluoroethane (HBFC-141B2)	358-97-4
	Bromodifluoroethane (HBFC-142B1)	420-47-3
	Bromofluoroethane (HBFC-151B1)	762-49-2
	Hexabromofluoropropane (HBFC-221B6)	—
	Pentabromodifluoropropane (HBFC-222B5)	—
	Tetrabromotrifluoropropane (HBFC-223B4)	—
	Tribromotetrafluoropropane (HBFC-224B3)	—
Dibromopentafluoropropane (HBFC-225B2)	431-78-7	

Substance/Category	Substance name	CAS RN
Ozone depleting substances (cont'd)	Bromohexafluoropropane (HBFC-226B1)	2252-78-0
	Pentabromofluoropropane (HBFC-231B5)	—
	Tetrabromodifluoropropane (HBFC-232B4)	—
	Tribromotrifluoropropane (HBFC-233B3)	—
	Dibromotetrafluoropropane (HBFC-234B2)	—
	Bromopentafluoropropane (HBFC-235B1)	460-88-8
	Tetrabromofluoropropane (HBFC-241B4)	—
	Tribromodifluoropropane (HBFC-242B3)	70192-80-2
	Dibromotrifluoropropane (HBFC-243B2)	431-21-0
	Bromotetrafluoropropane (HBFC-244B1)	679-84-5
	Tribromofluoropropane (HBFC-251B3)	75372-14-4
	Dibromodifluoropropane (HBFC-252B2)	460-25-3
	Bromotrifluoropropane (HBFC-253B1)	421-46-5
	Dibromofluoropropane (HBFC-261B2)	51584-26-0
	Bromodifluoropropane (HBFC-262B1)	—
	Bromofluoropropane (HBFC-271B1)	1871-72-3
	Dichlorofluoromethane (HCFC-21)	75-43-4
	Chlorodifluoromethane (HCFC-22)	75-45-6
	Chlorofluoromethane (HCFC-31)	593-70-4
	Tetrachlorofluoroethane (HCFC-121)	134237-32-4
	1,1,2,2-Tetrachloro-1-fluoroethane (HCFC-121)	354-14-3
	1,1,1,2-Tetrachloro-2-fluoroethane (HCFC-121a)	354-11-0
	Trichlorodifluoroethane (HCFC-122)	41834-16-6
	1,2,2-Trichloro-1,1-difluoroethane (HCFC-122)	354-21-2
	1,1,2-Trichloro-1,2-difluoroethane (HCFC-122a)	354-15-4
	1,1,1-Trichloro-2,2-difluoroethane (HCFC-122b)	354-12-1
	Dichlorotrifluoroethane (HCFC-123)	34077-87-7
	1,1-Dichloro-2,2,2-trifluoroethane (HCFC-123)	306-83-2
	1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	354-23-4
	1,2-Dichloro-1,1,2-trifluoroethane (HCFC-123a)	90454-18-5
	1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)	812-04-4
	Chlorotetrafluoroethane (HCFC-124)	63938-10-3
	2-chloro-1,1,1,2-tetrafluoroethane (HCFC-124)	2837-89-0
	1-chloro-1,1,2,2-tetrafluoroethane (HCFC-124a)	354-25-6
	Trichlorofluoroethane (HCFC-131)	27154-33-2
	1,1,2-Trichloro-2-fluoroethane (HCFC-131)	359-28-4 134237-34-6
	1,1,2-Trichloro-1-fluoroethane (HCFC131a)	811-95-0
	1,1,1-Trichloro-2-fluoroethane (HCFC-131b)	2366-36-1
	Dichlorodifluoroethane (HCFC-132)	25915-78-0
	1,2-Dichloro-1,2-difluoroethane (HCFC-132)	431-06-1
	1,1-Dichloro-2,2-difluoroethane (HCFC-132a)	471-43-2
	1,2-Dichloro-1,1-difluoroethane (HCFC-132b)	1649-08-7
	1,1-Dichloro-1,2-difluoroethane (HCFC-132c)	1842-05-3
	Chlorotrifluoroethane (HCFC-133)	1330-45-6
	Chlorotrifluoroethane (HCFC-133)	431-7-2
	1-Chloro-1,2,2-trifluoroethane (HCFC-133)	1330-45-6
	2-Chloro-1,1,1-trifluoroethane (HCFC-133a)	75-88-7
	1-Chloro-1,1,2-trifluoroethane (HCFC-133b)	421-04-5
	Dichlorofluoroethane (HCFC-141)	1717-00-6
	Dichlorofluoroethane (HCFC-141)	25167-88-8

Substance/Category	Substance name	CAS RN
Ozone depleting substances (cont'd)	1,2-Dichloro-1-fluoroethane (HCFC-141)	430-57-9
	1,1-Dichloro-2-fluoroethane (HCFC-141a)	430-53-5
	1,1-Dichloro-1-fluoroethane (HCFC-141b)	1717-00-6
	Chlorodifluoroethane (HCFC-142)	25497-29-4
	2-Chloro-1,1-Difluoroethane (HCFC-142)	338-65-8
	1-Chloro-1,1-difluoroethane (HCFC-142b)	75-68-3
	1-Chloro-1,2-difluoroethane (HCFC-142a)	338-64-7
	Chlorofluoroethane (HCFC-151)	110587-14-9
	1-Chloro-2-fluoroethane (HCFC-151)	762-50-5
	1-Chloro-1-fluoroethane (HCFC-151a)	1615-75-4
	Hexachlorofluoropropane (HCFC-221)	134237-35-7
	1,1,1,2,2,3-Hexachloro-3-fluoropropane (HCFC-221ab)	422-26-4 29470-94-8
	Pentachlorodifluoropropane (HCFC-222)	134237-36-8
	1,1,1,3,3-pentachloro-2,2-difluoropropane (HCFC-222ca)	422-49-1
	1,2,2,3,3-pentachloro-1,1-difluoropropane (HCFC-222aa)	422-30-0
	Tetrachlorotrifluoropropane (HCFC-223)	134237-37-9
	1,1,3,3-Tetrachloro-1,2,2-trifluoropropane (HCFC-223ca)	422-52-6
	1,1,1,3-Tetrachloro-2,2,3-trifluoropropane (HCFC-223cb)	422-50-4
	Trichlorotetrafluoropropane (HCFC-224)	134237-38-0
	1,3,3-Trichloro-1,1,2,2-tetrafluoropropane (HCFC-224ca)	422-54-8
	1,1,3-Trichloro-1,2,2,3-tetrafluoropropane (HCFC-224cb)	422-53-7
	1,1,1-Trichloro-2,2,3,3-tetrafluoropropane (HCFC-224cc)	422-51-7
	Dichloropentafluoropropane (HCFC-225)	127564-92-5
	2,2-Dichloro-1,1,1,3,3-pentafluoropropane (HCFC-225aa)	128903-21-9
	2,3-Dichloro-1,1,1,2,3-pentafluoropropane (HCFC-225ba)	422-48-0
	1,2-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225bb)	422-44-6
	3,3-Dichloro-1,1,1,2,2-pentafluoropropane (HCFC-225ca)	422-56-0
	1,3-Dichloro-1,1,2,2,3-pentafluoropropane (HCFC-225cb)	507-55-1
	1,1-Dichloro-1,2,2,3,3-pentafluoropropane (HCFC-225cc)	13474-88-9
	1,2-Dichloro-1,1,3,3,3-pentafluoropropane (HCFC-225da)	431-86-7
	1,3-Dichloro-1,1,2,3,3-pentafluoropropane (HCFC-225ea)	136013-79-1
	1,1-Dichloro-1,2,3,3,3-pentafluoropropane (HCFC-225eb)	111512-56-2
	Chlorohexafluoropropane (HCFC-226)	134308-72-8
	2-Chloro-1,1,1,3,3,3-hexafluoropropane (HCFC-226da)	431-87-8
	Pentachlorofluoropropane (HCFC-231)	134190-48-0
	1,1,1,2,3-pentachloro-2-fluoropropane (HCFC-231bb)	421-94-3
	Tetrachlorodifluoropropane (HCFC-232)	134237-39-1
	1,1,1,3-Tetrachloro-3,3-difluoro propane (HCFC-232fc)	460-89-9
	Trichlorotrifluoropropane (HCFC-233)	134237-40-4
	1,1,1-Trichloro-3,3,3-trifluoropropane (HCFC-233fb)	7125-83-9
	Dichlorotetrafluoropropane (HCFC-234)	127564-83-4
	1,2-Dichloro-1,2,3,3-tetrafluoropropane (HCFC-234db)	425-94-5
	Chloropentafluoropropane (HCFC-235)	134237-41-5
	1-Chloro-1,1,3,3,3-pentafluoropropane (HCFC-235fa)	460-92-4
	Tetrachlorofluoropropane (HCFC-241)	134190-49-1
	1,1,2,3-Tetrachloro-1-fluoropropane (HCFC-241db)	666-27-3
	Trichlorodifluoropropane (HCFC-242)	134237-42-6
	1,3,3,Trichloro-1,1-difluoropropane (HCFC-242fa)	460-63-9
	Dichlorotrifluoropropane (HCFC-243)	134237-43-7
	1,1-Dichloro-1,2,2-trifluoropropane (HCFC-243cc)	7125-99-7

Substance/Category	Substance name	CAS RN
Ozone depleting substances (cont'd)	2,3-Dichloro-1,1,1-trifluoropropane (HCFC-243db)	338-75-0
	3,3-Dichloro-1,1,1-trifluoropropane (HCFC-243fa)	460-69-5
	Chlorotetrafluoropropane (HCFC-244)	134190-50-4
	3-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244ca)	679-85-6
	1-Chloro-1,1,2,2-tetrafluoropropane (HCFC-244cc)	421-75-0
	Trichlorofluoropropane (HCFC-251)	134190-51-5
	1,1,3-Trichloro-1-fluoropropane (HCFC-251fb)	818-99-5
	1,1,2-Trichloro-1-fluoropropane (HCFC-251dc)	421-41-0
	Dichlorodifluoropropane (HCFC-252)	134190-52-6
	1,3-Dichloro-1,1-difluoropropane (HCFC-252fb)	819-00-1
	Chlorotrifluoropropane (HCFC-253)	134237-44-8
	3-Chloro-1,1,1-trifluoropropane (HCFC-253fb)	460-35-5
	Dichlorofluoropropane (HCFC-261)	134237-45-9
	1,1-Dichloro-1-fluoropropane (HCFC-261fc)	7799-56-6
	1,2-Dichloro-2-fluoro-propane (HCFC-261ba)	420-97-3
	Chlorodifluoropropane (HCFC-262)	134190-53-7
	1-Chloro-2,2-difluoropropane (HCFC-262ca)	420-99-5
	2-Chloro-1,3-difluoropropane (HCFC-262da)	102738-79-4
	1-Chloro-1,1-difluoropropane (HCFC-262fc)	421-02-03
	Chlorofluoropropane (HCFC-271)	134190-54-8
2-Chloro-2-fluoropropane (HCFC-271ba)	420-44-0	
1-Chloro-1-fluoropropane (HCFC-271fb)	430-55-7	
Radioactive substances	Uranium-238	7440-61-1
	Radon	10043-92-2
	Americium-241	14596-10-2
	Thorium-232	7440-29-1
	Cesium-137	10045-97-3
	Strontium-90	10098-97-2
	Other radioactive substances	—
Formaldehyde	Formaldehyde	50-00-0
2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-butylphenol		3846-71-7
Decabromodiphenyl ether (decaBDE)		1163-19-5
Phenol, isopropylated phosphate (3:1) (PIP (3:1))		68937-41-7
2,4,6-Tris(tert-butyl)phenol (2,4,6-TTBP)		732-26-3
Pentachlorothiophenol (PCTP)		133-49-3
Hexachlorobutadiene (HCBd)		87-68-3



Table 3 RoHS Directive Exemption Items List (Common)

No.	Exemption	Expiration dates
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):	
1(a)	For general lighting purposes < 30 W: 2,5mg	Expires on 24 February 2023.
1(b)	For general lighting purposes $\geq$ 30 W and < 50 W: 3,5mg	Expires on 24 February 2023.
1(c)	For general lighting purposes $\geq$ 50 W and < 150 W: 5 mg	Expires on 24 February 2023.
1(d)	For general lighting purposes $\geq$ 150 W: 15 mg	Expires on 24 February 2023.
1(e)	For general lighting purposes with circular or square structural shape and tube diameter $\leq$ 17 mm: 5 mg	Expires on 24 February 2023.
1(f)- I	For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg	Expires on 24 February 2027.
1(f)- II	For special purposes: 5 mg	Expires on 24 February 2025.
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3,5 mg	Expires on 24 August 2023.
2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):	
2(a)1	Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2):	Expires on 24 February 2023.
2(a)2	Tri-band phosphor with normal lifetime and a tube diameter $\geq$ 9 mm and $\leq$ 17 mm (e.g. T5):	Expires on 24 August 2023.
2(a)3	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and $\leq$ 28 mm (e.g. T8):	Expires on 24 August 2023.
2(a)4	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12):	Expires on 24 February 2023.
2(a)5	Tri-band phosphor with long lifetime ( $\geq$ 25,000 h): 5mg	Expires on 24 February 2023.
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):	
2(b)(1)	Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12): 10 mg	Expires on 13 April 2012.
2(b)(2)	Non-linear halophosphate lamps (all diameters): 15 mg	Expires on 13 April 2016.
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9): 15 mg	Expires on 24 February 2023. 10 mg may be used per lamp from 25 February 2023 until 24 February 2025.
2(b)(4)- I	Lamps for other general lighting and special purposes (e.g. induction lamps): 15 mg	Requested for renewal.
2(b)(4)- II	Lamps emitting mainly light in the ultraviolet spectrum: 15 mg	Expires on 24 February 2027.
2(b)(4)-III	Emergency lamps: 15 mg	Expires on 24 February 2027.
3	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):	
3(a)	Short length ( $\leq$ 500 mm): 3,5 mg	Expires on 24 February 2025.
3(b)	Medium length (> 500 mm and $\leq$ 1500 mm): 5 mg	Expires on 24 February 2025.
3(c)	Long length (> 1500 mm): 13 mg	Expires on 24 February 2025.
4(a)	Mercury in other low pressure discharge lamps (per lamp)	Expires on 24 February 2023.
4(a)- I	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lampspectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp	Expires on 24 February 2027.
4(b)	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	Expires on 24 February 2027.

No.	Exemption	Expiration dates
4(b)- I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$ : $P \leq 155$ W: 30 mg may be used per burner	Expires on 24 February 2023.
4(b)- II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$ : $155$ W < $P \leq 405$ W: 40 mg may be used per burner	Expires on 24 February 2023.
4(b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index $R_a > 60$ : $P > 405$ W: 40 mg may be used per burner	Expires on 24 February 2023.
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):	
4(c)- I	$P \leq 155$ W: 20 mg	Expires on 24 February 2027.
4(c)- II	$155$ W < $P \leq 405$ W: 25 mg	Expires on 24 February 2027.
4(c)-III	$P > 405$ W: 25 mg	Expires on 24 February 2027.
4(d)	Mercury in High Pressure Mercury (vapour) lamps (HPMV)	Expires on 13 April 2015.
4(e)	Mercury in metal halide lamps (MH)	Expires on 24 February 2027.
4(f)- I	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	Requested for renewal.
4(f)- II	Mercury in high pressure mercury vapour lamps used in projectors where an output $\geq 2000$ lumen ANSI is required	Expires on 24 February 2027.
4(f)-III	Mercury in high pressure sodium vapour lamps used for horticulture lighting	Expires on 24 February 2027.
4(f)-IV	Mercury in lamps emitting light in the ultraviolet spectrum	Expires on 24 February 2027.
4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light-artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0,3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0,24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	Expires on 31 December 2018.
5(a)	Lead in glass of cathode ray tubes	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>

No.	Exemption	Expiration dates
6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	<ul style="list-style-type: none"> <li>• Expires on 30 June 2019 for categories 1 to 7,10.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Category 11 requested for renewal.</li> </ul>
6(a)- I	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	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	<ul style="list-style-type: none"> <li>• Expires on 30 June 2019 for categories 1 to 7,10.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
6(b)- I	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead-bearing aluminium scrap recycling	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>
6(b)- II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>
6(c)	Copper alloy containing up to 4 % lead by weight	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
7(a)	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 (except applications covered by point 24 of this Annex) requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Category 11 requested for renewal.</li> </ul>
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> </ul>

No.	Exemption	Expiration dates
7(b) (con't)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	<ul style="list-style-type: none"> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
7(c)- I	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	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 (except applications covered by point 24 of this Annex) requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Category 11 requested for renewal.</li> </ul>
7(c)- II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	<p>Does not apply to applications covered by point 7(c)-I and 7(c)-IV of this Annex.</p> <ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Category 11 requested for renewal.</li> </ul>
7(c)- III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	<p>Expires on 1 January 2013.</p> <p>After that date may be used in spare parts for EEE placed on the market before 1 January 2013.</p>
7(c)- IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	<ul style="list-style-type: none"> <li>• Expires on 21 July 2021 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
8(a)	Cadmium and its compounds in one shot pellet type thermal cut-offs	<p>Expires on 1 January 2012.</p> <p>After that date may be used in spare parts for EEE placed on the market before 1 January 2012.</p>
8(b)	Cadmium and its compounds in electrical contacts	<ul style="list-style-type: none"> <li>• Expires on 29 February 2020 for categories 1 to 7,10.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments requested for renewal.</li> <li>• Category 11 requested for renewal.</li> </ul>
8(b)- I	Cadmium and its compounds in electrical contacts used in: <ul style="list-style-type: none"> <li>• circuit breakers,</li> </ul>	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>

No.	Exemption	Expiration dates
8(b)- I (con't)	Cadmium and its compounds in electrical contacts used in: <ul style="list-style-type: none"> <li>• thermal sensing controls,</li> <li>• thermal motor protectors,</li> <li>• (excluding hermetic thermal motor protectors),</li> <li>• AC switches rated at:               <ul style="list-style-type: none"> <li>- 6 A and more at 250 V AC and more, or</li> <li>- 12 A and more at 125 V AC and more,</li> </ul> </li> <li>• DC switches rated at 20 A and more at 18 V DC and more, and</li> <li>• switches for use at voltage supply frequency <math>\geq 200</math> Hz.</li> </ul>	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>
9	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	<ul style="list-style-type: none"> <li>• Expires on 5 March 2020 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
9(a)- I	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 (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input < 75 W at constant running conditions	<ul style="list-style-type: none"> <li>• Expires on 5 March 2021 for categories 1 to 7, 10.</li> </ul>
9(a)- II	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: <ul style="list-style-type: none"> <li>• designed to operate fully or partly with electrical heater,</li> <li>• having an average utilised power input <math>\geq 75</math> W at constant running conditions;</li> <li>• designed to fully operate with non-electrical heater.</li> </ul>	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> </ul>
9(a)- III	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	Applies to category 1; expires on 31 December 2026.
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	<ul style="list-style-type: none"> <li>• Expires on 5 July 2018 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
9(b)- I	Lead in bearing shells and bushes for refrigerant-containing hermetic scroll compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Applies to category 1; expires on 21 July 2019.
11(a)	Lead used in C-press compliant pin connector systems	May be used in spare parts for EEE placed on the market before 24 September 2010.

No.	Exemption	Expiration dates
11(b)	Lead used in other than C-press compliant pin connector systems	Expires on 1 January 2013. After that date may be used in spare parts for EEE placed on the market before 1 January 2013.
12	Lead as a coating material for the thermal conduction module C-ring	May be used in spare parts for EEE placed on the market before 24 September 2010.
13(a)	Lead in white glasses used for optical applications	<ul style="list-style-type: none"> <li>• Categories 1 to 7,10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments, and for category 11 <b>requested for renewal.</b></li> </ul>
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	<ul style="list-style-type: none"> <li>• Expires on 5 July 2018 for categories 1 to 7,10.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments, and for category 11 <b>requested for renewal.</b></li> </ul>
13(b)- I	Cadmium and lead in filter glasses and glasses used for reflectance standards	• Categories 1 to 7,10 requested for renewal.
13(b)- II	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	• Categories 1 to 7,10 requested for renewal.
13(b)-III	Cadmium and lead in glazes used for reflectance standards	• Categories 1 to 7,10 requested for renewal.
14	Lead in solders consisting of more than two elements for the connection between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Expires on 1 January 2011. After that date may be used in spare parts for EEE placed on the market before 1 January 2011.
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	<ul style="list-style-type: none"> <li>• Expires on 29 February 2020 for categories 1 to 7,10.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• <b>Category 9 industrial monitoring and control instruments, and for category 11 requested for renewal.</b></li> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
15(a)	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: <ul style="list-style-type: none"> <li>• a semiconductor technology node of 90 nm or larger;</li> <li>• a single die of 300 mm<sup>2</sup> or larger in any semiconductor technology node;</li> <li>• stacked die packages with die of 300 mm<sup>2</sup> or larger, or silicon interposers of 300 mm<sup>2</sup> or larger.</li> </ul>	• Categories 1 to 7, 10 requested for renewal.
16	Lead in linear incandescent lamps with silicate coated tubes	Expires on 1 September 2013.

No.	Exemption	Expiration dates
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments</li> <li>• 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
18(a)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub> :Pb)	Expires on 1 January 2011.
18(b)	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 (BaSi <sub>2</sub> O <sub>5</sub> :Pb)	<ul style="list-style-type: none"> <li>• Categories 1 to 7, 10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments.</li> <li>• Category 11 <b>requested for renewal.</b></li> </ul>
18(b)- I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi <sub>2</sub> O <sub>5</sub> :Pb) when used in medical phototherapy equipment	<ul style="list-style-type: none"> <li>• Category 5,8 excluding applications covered by entry 34 of Annex IV requested for renewal.</li> <li>• Expires on 21 July 2021 for category 8.</li> </ul>
19	Lead with PbBiSn-Hg and PbInSn-Hg in specific compositions as main amalgam and with PbSn-Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Expires on 1 June 2011.
20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Expires on 1 June 2011.
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	<ul style="list-style-type: none"> <li>• Expires on 29 February 2020 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments;</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	<ul style="list-style-type: none"> <li>• Expires on 21 July 2021 for categories 1 to 7, 10 except</li> <li>• applications covered by entry 21(b) or entry 39 of this Annex.</li> </ul>
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Expires on 21 July 2021 for categories 1 to 7, 10 except applications covered by entry 21(a) or entry 39 of this Annex.
21(c)	Lead in printing inks for the application of enamels on other than borosilicate glasses	Expires on 21 July 2021 for categories 1 to 7, 10.
23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	May be used in spare parts for EEE placed on the market before 24 September 2010.



No.	Exemption	Expiration dates
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	<ul style="list-style-type: none"> <li>• Categories 1 to 7, 10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring <b>requested for renewal</b>.</li> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
26	Lead oxide in the glass envelope of black light blue lamps	Expires on 1 June 2011.
27	Lead alloys as solder for transducers used in high-powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Expires on 24 September 2010.
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC <sup>(*)</sup> (* ) 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).	<ul style="list-style-type: none"> <li>• Categories 1 to 7, 10 requested for renewal.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments.</li> <li>• Category 11 <b>requested for renewal</b>.</li> </ul>
30	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	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
31	Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	<ul style="list-style-type: none"> <li>• 21 July 2016 for categories 1 to 7,10;</li> <li>• 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	<ul style="list-style-type: none"> <li>• Categories 1 to 7, 10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> </ul>



No.	Exemption	Expiration dates
32 (con't)	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	<ul style="list-style-type: none"> <li>• Category 9 industrial monitoring and control instruments <b>requested for renewal.</b></li> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	<ul style="list-style-type: none"> <li>• Expires on 21 July 2016 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
34	Lead in cermet-based trimmer potentiometer elements	<ul style="list-style-type: none"> <li>• Categories 1 to 7, 10 requested for renewal.</li> <li>• Categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments requested for renewal.</li> <li>• Category 8 in vitro diagnostic medical devices requested for renewal.</li> <li>• Category 9 industrial monitoring and control instruments, and for category 11 <b>requested for renewal.</b></li> </ul>
36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Expires on 1 July 2010.
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	<ul style="list-style-type: none"> <li>• Expires on 21 July 2021 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments.</li> </ul>
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	<ul style="list-style-type: none"> <li>• Expires on 21 July 2021 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments.</li> </ul>
39(a)	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)	All categories requested for renewal.
40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Expires on 31 December 2013.
41	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 hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council (*))	<ul style="list-style-type: none"> <li>• Expires on 31 March 2022 for categories 1 to 7,10.</li> <li>• Expires on 21 July 2021 for categories 8 and 9 other than in vitro diagnostic medical devices and industrial monitoring and control instruments.</li> </ul>

No.	Exemption	Expiration dates
41 (con't)	(*) Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws (*) of the Member States relating to measures against the emission (*) of gaseous and particulate pollutants from internal combustion (*) engines to be installed in non-road mobile machinery (*) (OJ L 59, 27.2.1998, p. 1).	<ul style="list-style-type: none"> <li>• Expires on 21 July 2023 for category 8 in vitro diagnostic medical devices.</li> <li>• Expires on 21 July 2024 for category 9 industrial monitoring and control instruments, and for category 11.</li> </ul>
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: <ul style="list-style-type: none"> <li>• with engine total displacement <math>\geq</math> 15 litres; or</li> <li>• with engine total displacement &lt; 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, onstruction, and agriculture applications.</li> </ul>	<ul style="list-style-type: none"> <li>• Category 11, excluding applications covered by entry 6(c) of this Annex <b>requested for renewal</b>.</li> </ul>
43	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: <ul style="list-style-type: none"> <li>(a) 30 % by weight of the rubber for               <ul style="list-style-type: none"> <li>(i) gasket coatings;</li> <li>(ii) solid-rubber gaskets; or</li> <li>(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.</li> </ul> </li> <li>(b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a).</li> </ul> <p>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.</p>	<ul style="list-style-type: none"> <li>• Expires on 21 July 2024 for category 11.</li> </ul>
44	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 <sup>(*)</sup> , installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users <p>(*) Regulation (EU) 2016/1628 of the European Parliament and of the Council of 14 September 2016 on requirements relating to gaseous and particulate pollutant emission limits and type-approval for internal combustion engines for non-road mobile machinery, amending Regulations (EU) No 1024/2012 and (EU) No 167/2013, and amending and repealing Directive 97/68/EC (OJ L 252, 16.9.2016, p. 53).</p>	<ul style="list-style-type: none"> <li>• Category 11 <b>requested for renewal</b>.</li> </ul>
45	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	<ul style="list-style-type: none"> <li>Expires on 20 April 2026 for category 11.</li> </ul>

No.	Exemption	Expiration dates
46	<p>Cadmium and lead in plastic profiles containing mixtures produced from polyvinyl chloride waste (hereinafter referred to as "recovered rigid PVC"), used for electrical and electronic windows and doors, where the concentration in the recovered rigid PVC material does not exceed 0,1 % cadmium by weight and 1,5 % lead by weight.</p> <p>From 28 May 2026, rigid PVC recovered from electrical and electronic windows and doors shall only be used for the production of new articles under the categories specified in entry 63, points 18(a) to (d) of Annex XVII to Regulation (EC) No 1907/2006.</p> <p>Suppliers of PVC articles containing recovered rigid PVC with a concentration of lead equal to or greater than 0,1 % by weight of the PVC material shall ensure, before placing those articles on the market, that they are visibly, legibly and indelibly marked with the statement: "Contains <math>\geq</math> 0,1 % lead". Where the marking cannot be provided on the article due to the nature of the article, it shall be on the packaging of the article.</p> <p>Suppliers of PVC articles containing recovered rigid PVC shall submit to national enforcement authorities upon request documentary evidence to substantiate the claims on the recovered origin of the PVC in those articles. Certificates issued by schemes to provide proof of traceability and recycled content, such as those developed according to EN 15343:2007 or equivalent recognised standards, may be used to substantiate such claims for PVC articles produced in the Union. Claims made on the recovered origin of the PVC in imported articles shall be accompanied by a certificate that provides equivalent proof of traceability and recycled content, issued by an independent third party.</p>	<p>Expires on 28 May 2028 for category 11. Apply from 1 August 2024.</p>

Note 1 : The grayed-out item in the table has already reached its expiration date.

Table 4 RoHS Directive Exemption Items List ( Categories 8,9 )

No.	Exemption	Categories and expiration dates		
		Categories 8,9	Category 8	Category 9
		Other than in vitro diagnostic medical devices and industrial monitoring and control instruments	In vitro diagnostic medical devices	Industrial monitoring and control instruments
Equipment utilising or detecting ionising radiation				
1	Lead, cadmium and mercury in detectors for ionising radiation.	Requested for renewal.	Expires on 21 July 2023.	Requested for renewal.
2	Lead bearings in X-ray tubes.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
3	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.	Requested for renewal.	Requested for renewal.	Requested for renewal.
4	Lead in glass frit of X-ray tubes and image intensifiers and lead in glass frit binder for assembly of gas lasers and for vacuum tubes that convert electromagnetic radiation into electrons.	Expires on 21 July 2021.	Expires on 21 July 2023.	Requested for renewal.
5	Lead in shielding for ionising radiation.	Requested for renewal.	Expires on 21 July 2023.	Requested for renewal.
6	Lead in X-ray test objects.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
7	Lead stearate X-ray diffraction crystals.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
8	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
Sensors, detectors and electrodes				
1a	Lead and cadmium in ion selective electrodes including glass of pH electrodes.	Requested for renewal.	Requested for renewal.	Requested for renewal.
1b	Lead anodes in electrochemical oxygen sensors.	Requested for renewal.	Expires on 21 July 2023.	Requested for renewal.
1c	Lead, cadmium and mercury in infra-red light detectors.	Requested for renewal.	Requested for renewal.	Requested for renewal.
1d	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
Others				
9	Cadmium in helium-cadmium lasers.	Expires on 21 July 2021.	Expires on 21 July 2023.	Requested for renewal.
10	Lead and cadmium in atomic absorption spectroscopy lamps.	Expires on 21 July 2021.	Expires on 21 July 2023.	Requested for renewal.
11	Lead in alloys as a superconductor and thermal conductor in MRI.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
12	Lead and cadmium in metallic bonds creating superconducting magnetic circuits in MRI, SQUID, NMR (Nuclear Magnetic Resonance) or FTMS (Fourier Transform Mass Spectrometer) detectors.	Requested for renewal.	Expires on 30 June 2021.	Requested for renewal.
13	Lead in counterweights.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
14	Lead in single crystal piezoelectric materials for ultrasonic transducers.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
15	Lead in solders for bonding to ultrasonic transducers.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.

		Categorijs and expiration dates		
16	Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RE switches and relays in monitoring and control instruments not exceeding 20 mg of mercury per switch or relay.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
17	Lead in solders in portable emergency defibrillators.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
18	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 $\mu\text{m}$ .	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
19	Lead in Liquid crystal on silicon (LCoS) displays.	Expires on 21 July 2021.	Expires on 21 July 2023.	Expires on 21 July 2024.
20	Cadmium in X-ray measurement filters.	Requested for renewal.	Expires on 21 July 2023.	Expires on 21 July 2024.
21	Cadmium in phosphor coatings in image intensifiers for X-ray images until 31 December 2019. and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	Expires on 31 December 2019.		
22	Lead acetate marker for use in stereotactic head frames for use with CT and MRI and in positioning systems for gamma beam and particle therapy equipment.	Expires on 30 June 2021.		
23	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation.	Expires on 30 June 2021.	—	
24	Lead enabling vacuum tight connections between aluminium and steel in X-ray image intensifiers.	Expires on 31 December 2019.		
25	Lead in the surface coatings of pin connector systems requiring nonmagnetic connectors which are used durably at a temperature below - 20 °C under normal operating and storage conditions.	Expires on 30 June 2021.		
26	Lead in the following applications that are used durably at a temperature below - 20 °C under normal operating and storage conditions: (a) solders on printed circuit boards; (b) termination coatings of electrical and electronic components and (c) coatings of printed circuit boards; (d) solders for connecting wires and cables; (e) solders connecting transducers and sensors. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below - 150 °C.	Requested for renewal.	Expires on 30 June 2021.	Requested for renewal.
27	Lead in - solders, - termination coatings of electrical and electronic components and printed circuit boards, - connections of electrical wires, shields and enclosed connectors, which are used in (a) magnetic fields within the sphere of 1 m radius around the isocentre of the magnet in medical magnetic resonance imaging equipment, including patient monitors designed to be used within this sphere, or (b) magnetic fields within 1 m distance from the external surfaces of cyclotron magnets, magnets for beam transport and beam direction control applied for particle therapy, or	Expires on 30 June 2027	Expires on 30 June 2027	Expires on 30 June 2027

		Categorijs and expiration dates		
27 (cont)	(c) MRI non-integrated coils, for which the Declaration of Conformity of this model is issued for the first time before 23 September 2022, or (d) MRI devices including integrated coils, which are used in magnetic fields within the sphere of 1 m radius around the isocentre of the magnet in medical magnetic resonance imaging equipment, for which the Declaration of Conformity is issued for the first time before 30 June 2024.	Expires on 30 June 2027	Expires on 30 June 2027	Expires on 30 June 2027
28	Lead in solders for mounting cadmium telluride and cadmium zinc telluride digital array detectors to printed circuit boards.	Expires on 31 December 2017		
29	Lead in alloys, as a superconductor or thermal conductor, used in cryo-cooler cold heads and/or in cryo-cooled cold probes and/or in cryo-cooled equipotential bonding systems, in medical devices (category 8) and/or in industrial monitoring and control instruments.	Requested for renewal.	Expires on 30 June 2021.	
30	Hexavalent chromium in alkali dispensers used to create photocathodes in X-ray image intensifiers until 31 December 2019. and in spare parts for X-ray systems placed on the EU market before 1 January 2020.	Expires on 31 December 2019.		
31	Lead, cadmium and hexavalent chromium in reused spare parts, recovered from medical devices placed on the market before 22 July 2014 and used in category 8 equipment placed on the market before 22 July 2021, provided that reuse takes place in auditable closed-loop business-to-business return systems, and that the reuse of parts is notified to the consumer.	Expires on 5 November 2017.		—
31a	Lead, cadmium, hexavalent chromium, and polybrominated diphenyl ethers (PBDE) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, or electron microscopes and their accessories, provided that the reuse takes place in auditable closed-loop business-to-business return systems and that each reuse of parts is notified to the customer.	Requested for renewal.	Requested for renewal.	Expires on 21 July 2024.
32	Lead in solders on printed circuit boards of detectors and data acquisition units for Positron Emission Tomographs which are integrated into Magnetic Resonance Imaging equipment.	Expires on 31 December 2019.		
33	Lead in solders on populated printed circuit boards used in Directive 93/42/EEC class IIa and IIb mobile medical devices other than portable emergency defibrillators.	class IIa		
		Expires on 30 June 2016.	—	—
		class IIb		
		Expires on 31 December 2020.	—	—
34	Lead as an activator in the fluorescent powder of discharge lamps when used for extracorporeal photopheresis lamps containing BSP (BaSi <sub>2</sub> O <sub>5</sub> :Pb) phosphors.	Expires on 21 July 2021.		—

		Categorijs and expiration dates		
35	Mercury in cold cathode fluorescent lamps for back-lighting liquid crystal displays, not exceeding 5 mg per lamp, used in industrial monitoring and control instruments placed on the market before 22 July 2017.	—	—	Expires on 21 July 2024.
36	Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	—	—	Expires on 31 December 2020.
37	Lead in platinized platinum electrodes used for conductivity measurements where at least one of the following conditions applies: (a) wide-range measurements with a conductivity (a) range covering more than 1 order of (a) magnitude (e.g. range between 0,1 mS/m and (a) 5 mS/m) in laboratory applications for (a) unknown concentrations; (b) measurements of solutions where an (b) accuracy of $\pm 1\%$ of the sample range and (b) where high corrosion resistance of the (b) electrode are required for any of the (b) following: (b) (i) solutions with an acidity $< \text{pH } 1$ ; (b) (ii) solutions with an alkalinity $> \text{pH } 13$ ; (b) (iii) corrosive solutions containing halogen (b) (iii) gas; (c) measurements of conductivities above 100 (c) mS/m that must be performed with portable (c) instruments.	Expires on 31 December 2025.	Expires on 31 December 2025.	Expires on 31 December 2025.
38	Lead in solder in one interface of large area stacked die elements with more than 500 interconnects per interface which are used in X-ray detectors of computed tomography and X-ray systems. May be used after that date in spare parts for CT and X-ray systems placed on the market before 1 January 2020.	Expires on 31 December 2019.		
39	Lead in micro-channel plates (MCPs) used in equipment where at least one of the following properties is present: (a) a compact size of the detector for electrons or ions, where the space for the detector is limited to a maximum of 3 mm/MCP (detector thickness + space for installation of the MCP), a maximum of 6 mm in total, and an alternative design yielding more space for the detector is scientifically and technically impracticable; (b) a two-dimensional spatial resolution for detecting electrons or ions, where at least one of the following applies: (i) a response time shorter than 25 ns; (ii) a sample detection area larger than (ii) $149 \text{ mm}^2$ ; (iii) a multiplication factor larger than $1,3 \times 10^3$ . (c) a response time shorter than 5 ns for detecting electrons or ions; (d) a sample detection area larger than $314 \text{ mm}^2$ for detecting electrons or ions; (e) a multiplication factor larger than $4,0 \times 10^7$ .	Requested for renewal.	Requested for renewal.	Requested for renewal.

		Categorioges and expiration dates		
40	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC for industrial monitoring and control instruments. May be used after that date in spare parts for industrial monitoring and control instruments placed on the market before 1 January 2021.	—	—	Expires on 31 December 2020.
41	Lead as a thermal stabiliser in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in-vitro diagnostic medical devices for the analysis of blood and other body fluids and body gases.	—	Expires on 31 March 2022.	—
41a	Lead as a thermal stabilizer in polyvinyl chloride (PVC) used as base material in amperometric, potentiometric and conductometric electrochemical sensors which are used in in vitro diagnostic medical devices for the analysis of creatinine and blood urea nitrogen in whole blood.	—	Expires on 31 December 2023	—
42	Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50 MHz) modes of operation.	Expires on 30 June 2026.	—	—
43	Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10 ppm is required.	—	—	Expires on 15 July 2023.
44	Cadmium in radiation tolerant video camera tubes designed for cameras with a centre resolution greater than 450 TV lines which are used in environments with ionising radiation exposure exceeding 100 Gy/hour and a total dose in excess of 100 kGy.	Expires on 31 March 2027. (Category9 : Monitoring and control instruments only.)	—	Expires on 31 March 2027.
45	Bis(2-ethylhexyl) phthalate (DEHP) in ion-selective electrodes applied in point of care analysis of ionic substances present in human body fluids and/or in dialysate fluids.	—	Requested for renewal.	—
46	Bis(2-ethylhexyl) phthalate (DEHP) in plastic components in MRI detector coils.	—	Requested for renewal.	—
47	Bis(2-ethylhexyl) phthalate (DEHP) in ion-selective electrodes applied in point of care analysis of ionic substances present in human body fluids and/or in dialysate fluids	Expires on 21 July 2028.	Expires on 21 July 2028.	—
48	Lead in bismuth strontium calcium copper oxide (BSCCO) superconductor cables and wires and lead in electrical connections to these wires	Expires on 30 June 2027.	Expires on 30 June 2027.	Expires on 30 June 2027.
49	Mercury in melt pressure transducers for capillary rheometers at temperatures over 300 °C and pressures over 1,000 bar	Expires on 31 December 2025. (Category9:Monitoring and control instruments only.)	—	Expires on 31 December 2025.

Note 1 : The grayed-out item in the table has already reached its expiration date.



Table 5 [Reference]REACH Regulation Candidate List of Substances of Very High Concern for Authorisation (SVHC)

No.	Substance name	CAS RN	Examples of Use	
1st (28 October 2008)				
1st	1	4,4'-Diaminodiphenylmethane (MDA)	101-77-9	Curing agents for epoxy and polyurethane resin
	2	5-tert-butyl-2,4,6-trinitro-m-xylene (Musk xylene)	81-15-2	Fragrance
	3	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)	85535-84-8	Rubber, Paints, Sealants, Adhesives, Lubricants, Flame retardants, Plasticizer
	4	Anthracene	120-12-7	Carbon black, Plastic parts
	5	Benzyl butyl phthalate (BBP)	85-68-7	Plasticizer in PVC
	6	Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7	Plasticizer in PVC
	7	Bis (tributyltin) oxide (TBTO)	56-35-9	Mildewproofing agents, Antifouling paints
	8	Cobalt dichloride	7646-79-9	Dry indicators (silica gel etc.)
	9	Diarsenic pentaoxide	1303-28-2	Dyeing, Metallurgy, Wood preservative
	10	Diarsenic trioxide	1327-53-3	Special glasses fining agents
	11	Dibutyl phthalate (DBP)	84-74-2	Plasticizer in PVC, <b>Metal working fluids</b>
	12	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified • Hexabromocyclododecane • α-Hexabromocyclododecane • β-Hexabromocyclododecane • γ-Hexabromocyclododecane 1,2,5,6,9,10-Hexabromocyclododecane	25637-99-4 134237-50-6 134237-51-7 134237-52-8 3194-55-6	Flame retardants
	13	Lead hydrogen arsenate	7784-40-9	Insecticides, Wood preservative
	14	Sodium dichromate	10588-01-9 7789-12-0	Production of chromium compound (chromium sulfate) and Inorganic chromic acid pigment
	15	Triethyl arsenate	15606-95-8	Used for specialist applications in electronics
2nd (1 October 2013)				
2nd	16	2,4-dinitrotoluene	121-14-2	Production of toluene diisocyanate
	17	Anthracene oil	90640-80-5	Manufacture of other substances such as anthracene and carbon black, Lubricants, Sealants, Preservatives
	18	Anthracene oil, anthracene paste	90640-81-6	Manufacture of other substances such as anthracene and carbon black, Lubricants, Sealants, Preservatives
	19	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2	Manufacture of other substances such as anthracene and carbon black, Lubricants, Sealants, Preservatives
	20	Anthracene oil, anthracene paste, distn. Lights	91995-17-4	Manufacture of other substances such as anthracene and carbon black, Lubricants, Sealants, Preservatives
	21	Anthracene oil, anthracene-low	90640-82-7	Manufacture of other substances such as anthracene and carbon black, Lubricants, Sealants, Preservatives
	22	Diisobutyl phthalate (DIBP)	84-69-5	Plasticizer, Adhesives, Paints, Inks
	23	Lead chromate	7758-97-6	Pigments, Paints, Printing inks, Colorings for rubber and plastic products
	24	Lead chromate molybdate sulphate red (C.I. Pigment Red 104)	12656-85-8	Colourings, Paints, Coatings
	25	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2	Colourings, Paints, Coatings

No.	Substance name	CAS RN	Examples of Use	
2nd (1 October 2013) (con't)				
2nd	26	Pitch, coal tar, high temp.	65996-93-2	Electrodes, Insulating packings
	27	Tris(2-chloroethyl)phosphate	115-96-8	Plasticizer, Adhesives, Coatings, Viscosity regulator with flame-retarding properties
2nd (30 March 2013) (added)				
	28	Acrylamide	79-06-1	Raw material monomer of polyacrylamide, Fiber auxiliaries
3rd (6 October 2018)				
3rd	29	Ammonium dichromate	7789-09-5	Oxidizing agents, Metal treatments
	30	Boric acid	10043-35-3	Biocides and Preservatives, Rubber, Glasses, Ceramic, Flame retardants, Paints, Solder
		Boric acid, crude natural	11113-50-1	
	31	Disodium tetraborate, anhydrous	1303-96-4	Glass and glass fibres, Ceramic, Cleaning and cleaning agents, Metallurgy, Adhesives, Flame retardants, Biocides
			1330-43-4	
	12179-04-3			
	32	Potassium chromate	7789-00-6	Metal processing and coating, Ceramic colorants, Pigments, Inks
	33	Potassium dichromate	7778-50-9	Chrome metal manufacturing, Treatment and coating of metals
34	Sodium chromate	7775-11-3	Manufacture of chromium compounds	
35	Tetraboron disodium heptaoxide, hydrate	12267-73-1	Amino plastic resin stabilizer, Plywood additive and flame retardant for plywood / compressed wood, Preservative for wood	
36	Trichloroethylene	79-01-6	Cleaning and degreasing of metal parts, Adhesive solvents	
4th (15 December 2010)				
4th	37	2-ethoxyethanol	110-80-5	Solvents, Chemical intermediates
	38	2-methoxyethanol	109-86-4	Solvents, Chemical intermediates, Fuel additive
	39	Acids generated from chromium trioxide and their oligomers • Chromic acid • Dichromic acid • Oligomers of chromic acid and dichromic acid	13530-68-2	Dissolution of chromium trioxide
			7738-94-5	
	—			
	40	Chromium trioxide	1333-82-0	Metal finishing, Fixing agent for aqueous wood preservative
	41	Cobalt(II) carbonate	513-79-1	Production of catalysts and pigments, The ground coat frit in the adhesive
	42	Cobalt(II) diacetate	71-48-7	Catalyst production, Surface treatment, Alloys, Pigments, Dyes, Rubber adhesives
43	Cobalt(II) dinitrate	10141-05-6	Catalyst production, Surface treatment, Batteries	
44	Cobalt(II) sulphate	10124-43-3	Pigments, Batteries, Corrosion prevention, Glass bleaching, Surface treatment (Electroplating etc.)	
5th (20 June 2011)				
5th	45	1,2,3-trichloropropane	96-18-4	Crosslinking agent of vulcanized rubber or hexafluoropropylene, Detergents, Plasticizer raw material
	46	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)	71888-89-6	Plasticizer in PVC, Printing inks, Plasticizer in sealants
	47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNU)	68515-42-4	Telecommunication cable PVC and foam plasticizer

No.	Substance name	CAS RN	Examples of Use	
5th (20 June 2011) (con't)				
5 th	48	1-Methyl-2-pyrrolidone (NMP)	872-50-4	Electric products, Molds, Injection washing. Resin solvents, Acetylene solvents, Paint peeling, High temperature coating, MOS semiconductor manufacturing solvent, Acrylic or styrene latex, Photoresist / Etching beard removal
	49	2-ethoxyethyl acetate	111-15-9	Electronic materials (for resist ink) Solvents, Paints, Printing inks, Lacquer, Varnish solvents and stabilizers
	50	Hydrazine	302-01-2 7803-57-8	Synthetic uses, Anticorrosive agents, Monomer for polymerization reaction, Raw material for foaming agents
	51	Strontium chromate	7789-06-2	Coating applications, Rust preventive pigments, Paints, Varnish, Sealants, Coil
6th (19 December 2011)				
6 th	52	1,2-dichloroethane	107-06-2	Solvents, Synthetic intermediates
	53	2,2'-dichloro-4,4'-methylenedianiline (MOCA)	101-14-4	Cure accelerators
	54	2-Methoxyaniline, o-Anisidine	90-04-0	Deys
	55	4-(1,1,3,3-tetramethylbutyl) phenol	140-66-9	Oil-soluble phenolic resin raw material, Compounding agent for rubber, Polymerization regulating agent for synthetic resin
	56	Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017- 00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium and silicon are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm) c) alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight	—	High temperature insulation such as equipment insulation, Fire protection of industrial process equipment
	57	Arsenic acid	7778-39-4	Bubble removal in laminated printed wiring board manufacturing
	58	Bis(2-methoxyethyl) ether	111-96-6	Solvenst, Adhesives
	59	Bis(2-methoxyethyl) phthalate	117-82-8	Plasticizer
	60	Calcium arsenate	7778-44-1	Smelting products
	61	Dichromium tris(chromate)	24613-89-6	Metal surface treatment with aluminum coatings
	62	Formaldehyde, oligomeric reaction products with aniline	25214-70-4	Curing agents, Adhesives
	63	Lead diazide, Lead azide	13424-46-9	Initiators
	64	Lead dipicrate	6477-64-1	Initiators
	65	Lead styphnate	15245-44-0	Initiators, Detonators
66	N,N-dimethylacetamide	127-19-5	Cleaning agents, Paint remover	
67	Pentazinc chromate octahydroxide	49663-84-5	Automotive and aerospace coatings	
68	Phenolphthalein	77-09-8	pH indicator solutions	
69	Potassium hydroxyoctaoxodizincatedichromate	11103-86-9	Steel, Aluminum coil coatings	
70	Trilead diarsenate	3687-31-8	Smelting products	

No.	Substance name	CAS RN	Examples of Use
6th (19 December 2011) (con't)			
6 th	71 Zirconia Aluminosilicate Refractory Ceramic Fibres are fibres covered by index number 650-017-00-8 in Annex VI, part 3, table 3.1 of Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, and fulfil the three following conditions: a) oxides of aluminium, silicon and zirconium are the main components present (in the fibres) within variable concentration ranges b) fibres have a length weighted geometric mean diameter less two standard geometric errors of 6 or less micrometres (µm). c) alkaline oxide and alkali earth oxide (Na <sub>2</sub> O+K <sub>2</sub> O+CaO+MgO+BaO) content less or equal to 18% by weight	—	High temperature insulation such as equipment insulation, Fire protection of industrial process equipment
7th (8 June 2012)			
7 th	72 1,2-bis(2-methoxyethoxy) ethane (TEGDME, triglyme)	112-49-2	Processing aid for solvents, Industrial chemicals
	73 1,2-dimethoxyethane, ethylene glycol dimethyl ether (EGDME)	110-71-4	Solvents, Solvent electrolyte of lithium batteries, Processing aid for industrial chemicals
	74 1,3,5-Tris(oxiranylmethyl)-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (TGIC)	2451-62-9	Curing agent for resin and paints, Laminated sheet, Printed circuit board, Resin molding system, Adhesives, Electrically insulating materials, Silk screen printing paints
	75 1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione (β-TGIC)	59653-74-6	Curing agent for resin and paints, Laminated sheet, Printed circuit board, Resin molding system, Adhesives, Electrically insulating materials, Silk screen printing paints
	76 4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol [with ≥ 0.1% of Michler's ketone (EC No.202-027-5) or Michler's base (EC No.202-959-2)]	561-41-1	Production of inks, Dyes
	77 4,4'-Bis(dimethylamino)benzophenone (Michler's ketone)	90-94-8	Intermediates in the production of triphenylmethane dyes and the like
	78 [4-[4,4'-bis(dimethylamino) benzhydrylidene] cyclohexa-2,5-dien-1-ylidene]dimethyl ammonium chloride (C.I. Basic Violet 3) [with ≥ 0.1% of Michler's ketone (EC No.202-027-5) or Michler's base (EC No.202-959-2)]	548-62-9	Inks, Kaboratory dyeings
	79 [4-[[4-anilino-1-naphthyl]][4-(dimethylamino) phenyl] methylene] cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue 26) [with ≥ 0.1% of Michler's ketone (EC No.202-027-5) or Michler's base (EC No.202-959-2)]	2580-56-5	Inks, Paint manufacturings, Dyeings, Packagings, Plastic products
	80 Diboron trioxide	1303-86-2	Flame retardants, Adhesives, Inks/Paints, Ceramics, Glass and glass fiber
	81 Formamide	75-12-7	Intermediates
82 Lead(II) bis(methanesulfonate)	17570-76-2	Plating for electronic components	
83 N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1	Intermediates in the production of dyes and the like	

No.	Substance name	CAS RN	Examples of Use	
7th (8 June 2012) (con't)				
7 <sup>th</sup>	84	$\alpha,\alpha$ -Bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4) [with $\geq 0.1\%$ of Michler's ketone (EC No.202-027-5) or Michler's base (EC No.202-959-2)]	6786-83-0	Printing ink formulation, Dyeings, Cleaning agents
8th (12 December 2012)				
8 <sup>th</sup>	85	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0	Plastic plasticizer
	86	1,2-diethoxyethane	629-14-1	Ester gum, shellac, resin for organic synthesis solvents such as oil
	87	1-bromopropane (n-propyl bromide)	106-94-5	Organic synthesis, dyeings
	88	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2	Natural thermoplastic vulcanizate
	89	4,4'-methylenedi-o-toluidine	838-88-0	Epoxy and urethane resin curing agents
	90	4,4'-oxydianiline and its salts	101-80-4	Raw materials for polyimide, polyamideimide and polyamide, Materials for polymer compounds such as epoxy and urethane, and crosslinking agents
	91	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]	—	Emulsifier for emulsion polymerization, Water-based paints
	92	4-aminoazobenzene	60-09-3	Raw material, Intermediates
	93	4-methyl-m-phenylenediamine (toluene-2,4-diamine)	95-80-7	Polyurethane resin raw material, Dye intermediates
	94	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	—	Plastic antioxidants, Plasticizer paints, Printing inks, Water-based paint, Metal lubricants
	95	6-methoxy-m-toluidine (p-cresidine)	120-71-8	Various azo dye intermediates
	96	[Phthalato(2-)]dioxotrilead	69011-06-9	PVC stabilizer
	97	Acetic acid, lead salt, basic	51404-69-4	Synthetic intermediates, Anticorrosive pigments
	98	Biphenyl-4-ylamine	92-67-1	Raw material, Intermediates
	99	Bis(pentabromophenyl) ether (decabromodiphenyl ether) (DecaBDE)	1163-19-5	Flame retardants
100	• Cyclohexane-1,2-dicarboxylic • cis-cyclohexane-1,2-dicarboxylic anhydride • trans-cyclohexane-1,2-dicarboxylic anhydride [all possible combinations of the cis- and trans-isomers]	85-42-7 13149-00-3 14166-21-3	Preparation of polyester and alkyd resins, Plasticizers and crosslinking agents for thermoplastic resins, Epoxy resin curing agent, Rust inhibitors	
101	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide)) (ADCA)	123-77-3	Rubber and synthetic resin foaming agents, Colorants	
102	Dibutyltin dichloride (DBTC)	683-18-1	Rubber additives, PVC stabilizers, Insulation materials, Coating materials	
103	Diethyl sulphate	64-67-5	Dyeing	
104	Diisopentylphthalate	605-50-5	Plasticizer such as PVC resin	
105	Dimethyl sulphate	77-78-1	Stabilizers (Sulfuric anhydride, Dicyanoethylene monomer)	

No.	Substance name	CAS RN	Examples of Use
8th (12 December 2012) (con't)			
106	Dinoseb (6-sec-butyl-2,4-dinitrophenol)	88-85-7	Polymer raw materials
107	Dioxobis(stearato)trilead	12578-12-0	PVC stabilizers
108	Fatty acids, C16-18, lead salts	91031-62-8	PVC stabilizers
109	Furan	110-00-9	Organic synthetic raw materials
110	Henicosaflluoroundecanoic acid	2058-94-8	Fluoropolymer production and additives
111	Heptacosaflluorotetradecanoic acid	376-06-7	Fluoropolymer production and additives
112	<ul style="list-style-type: none"> <li>• Hexahydromethylphthalic anhydride</li> <li>• Hexahydro-4-methylphthalic anhydride</li> <li>• Hexahydro-3-methylphthalic anhydride</li> <li>• Hexahydro-1-methylphthalic anhydride</li> </ul> [including cis- and trans- stereo isomeric forms and all possible combinations of the isomers]	25550-51-0 19438-60-9 57110-29-9 48122-14-1	Preparation of polyester and alkyd resins, Plasticizers and crosslinking agents for thermoplastic resins, Epoxy resin curing agents, Rust inhibitors
113	Lead bis(tetrafluoroborate)	13814-96-5	Solder platings, Electroplatings
114	Lead cyanamidate	20837-86-9	Antirust pigments
115	Lead dinitrate	10099-74-8	Synthetic raw materials
116	Lead monoxide (lead oxide)	1317-36-8	PVC stabilizer, Pigments ,Paints
117	Lead oxide sulfate	12036-76-9	Battery electrode materials
118	Lead titanium trioxide	12060-00-3	Electronic ceramic materials
119	Lead titanium zirconium oxide	12626-81-2	Electronic ceramic materials
120	Methoxyacetic acid	625-45-6	Antirust pigments
121	Methyloxirane (Propylene oxide)	75-56-9	Pigments
122	N,N-dimethylformamide	68-12-2	Cleaning solvents for electrical equipment and integrated circuits
123	N-methylacetamide	79-16-3	Solvents
124	N-pentyl-isopentylphthalate	776297-69-9	Plastic plasticizer
125	o-aminoazotoluene	97-56-3	Raw materials, Intermediates
126	o-toluidine	95-53-4	Azo and sulfur dyes, Special solvent for dye production
127	Orange lead (lead tetroxide) (C.I. Pigment Red 105)	1314-41-6	Paints, Pigments, Rubbers, Synthetic resins, Electronic material
128	Pentacosaflluorotridecanoic acid	72629-94-8	Fluoropolymer production and additives
129	Pentalead tetraoxide sulphate	12065-90-6	PVC stabilizer
130	Pyrochlore, antimony lead yellow (C.I. Pigment Yellow 41)	8012-00-8	Pigments
131	Silicic acid (H <sub>2</sub> Si <sub>2</sub> O <sub>5</sub> ), barium salt (1:1), lead-doped [with lead (Pb) content above the applicable generic concentration limit for 'toxicity for reproduction' Repr. 1A (CLP) or category 1 (DSD), the substance is a member of the group entry of lead compounds, with index number 082-001-00-6 in Regulation (EC) No 1272/2008]	68784-75-8	Lamp fluorescent materials
132	Silicic acid, lead salt	11120-22-2	Raw materials for glasses
133	Sulfurous acid, lead salt, dibasic	62229-08-7	PVC stabilizer
134	Tetraethyllead	78-00-2	Octane booster
135	Tetralead trioxide sulphate	12202-17-4	Battery electrode material, PVC stabilizer
136	Tricosaflluorododecanoic acid	307-55-1	Fluoropolymer production and additives
137	Trilead bis(carbonate)dihydroxide	1319-46-6	Paints, PVC stabilizers, Pigments, Rubber
138	Trilead dioxide phosphonate	12141-20-7	PVC stabilizer

No.	Substance name	CAS RN	Examples of Use
9th (20 June 2013)			
9th	139	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]	— Industrial and consumer paints, Ethoxylate at the time of emulsion polymerization (emulsifier)
	140	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1 Fluorinated resin, Fluorine rubber reaction aid
	141	Cadmium	7440-43-9 Ni-Cd battery, Pigments, Plating, Stabilizers
	142	Cadmium oxide	1306-19-0 Ni-Cd battery, Pigments, Plating, Stabilizers
	143	Dipentyl phthalate (DPP)	131-18-0 Plasticizer
	144	Pentadecafluorooctanoic acid (PFOA)	335-67-1 Reaction aid of fluoride resin (PTFE, PVDF)
10th (16 December 2013)			
10th	145	Cadmium sulphide	1306-23-6 For the production of inorganic pigments, Additives for frit production, Additives for manufacturing electronic components
	146	Dihexyl phthalate	84-75-3 Plasticizer
	147	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	573-58-0 Dyes (eg for Cloths, Paper)
	148	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7 Dyes, Inks
	149	Imidazolidine-2-thione (2-imidazoline-2-thiol)	96-45-7 Aid for vulcanization reaction
	150	Lead di(acetate)	301-04-2 Coatings, Paint, Thinner, Paint removers
	151	Trixylyl phosphate	25155-23-1 Hydraulic solvents, Lubricants, Lubricant additives, Grease products, Metal working fluid, Flame retardant in the production of plastics
11th (16 June 2014)			
11th	152	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4 Sealants / Jointing agents, Ggeneral purpose PVC (as an alternative to DEHP), Adhesives and inks (as an alternative to DIBP)
	153	Cadmium chloride	10108-64-2 Electroplatings, Electrogalvanizings
	154	Sodium perborate Perboric acid, sodium salt	15120-21-5 11138-47-9 Cleaning products
	155	Sodium peroxometaborate	7632-04-4 Cleaning products
12th (17 December 2014)			
12th	156	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1 UV stabilisers, Light stabilisers
	157	2-benzotriazol-2-yl-4,6-di-tertbutylphenol (UV-320)	3846-71-7 Ultraviolet light stabilizer for plastic (especially transparent plastic resin), polyurethane and rubber.
	158	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)	15571-58-1 Production of rigid PVC, Heat stabilizer for slightly plasticized PVC

No.	Substance name	CAS RN	Examples of Use	
12th (17 December 2014) (con't)				
12 th	159	Cadmium fluoride	7790-79-6	Glass production, Lubricating high temperature dry film, Welding aluminum and its alloys, Main component of flux
	160	Cadmium sulphate	10124-36-4 31119-53-6	Metal surface coatings, Electroplating of metals, Electroplatings
	161	Reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)	—	Production of rigid PVC, Heat stabilizer for slightly plasticized PVC
13th (15 June 2015)				
13 th	162	1,2-Benzenedicarboxylic acid, di-C6-10-alkyl esters 1,2-Benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters [with ≥0.3% of dihexyl phthalate (EC No.201-559-5)]	68515-51-5 68648-93-1	Adhesives, Lubricants, Paints, Cable compounds, Ppolymer foils, PVC compounds
	163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]	—	Synthetic perfume, Soap, Detergent (KARANAL)
	164	1,3-propanesultone	1120-71-4	Electrolyte fluid of lithium ion batteries
14th (17 December 2015)				
14 th	165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1	UV-protection agent in paints, Plastics, Rubber
	166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol (UV-350)	36437-37-3	UV-protection agent in paints, Plastics, Rubber
	167	Nitrobenzene	98-95-3	Production of chemicals
	168	•Perfluorononan-1-oic-acid, •Sodium salts of perfluorononan-1-oic-acid, •Ammonium salts of perfluorononan-1-oic-acid	375-95-1 21049-39-8 4149-60-4	Processing aids for the production of fluoropolymers, Lubricating oil additives, Cleaning agents, waterproof agents, Liquid crystal display panel
15th (20 June 2016)				
15 th	169	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8	Adhesives, Paints, Rubber, Use on plastic parts (household goods etc.)
16th (12 January 2017)				
16 th	170	4,4'-isopropylidenediphenol (Bisphenol A, BPA)	80-05-7	Production of polycarbonate, PVC products, Epoxy resin curing agents, Antioxidant for PVC processings
	171	4-Heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]	—	Machinery lubricants and grease
	172	•Nonadecafluorodecanoic acid (PFDA), •Decanoic acid, nonadecafluoro-, sodium salt •Ammonium nonadecafluorodecanoate	335-76-2 3108-42-7 3830-45-3	Plasticizers, Lubricants, Surfactants, Corrosion inhibitors



No.	Substance name	CAS RN	Examples of Use	
17th (7 July 2017)				
17th	173	p-(1,1-dimethylpropyl) phenol	80-46-6	Adhesives, Coating agents, Printing inks, Paints
	174	Perfluorohexane-1-sulphonic acid and its salts (PFHxS)	—	Alternatives to PFOS, Electronic equipment and parts, Semiconductor industry, Metal platings, Paper and packagings
18th (15 January 2018)				
18th	175	1,6,7,8,9,14,15,16,17,17,18,18-Dodeca chloropentacyclo [12.2.1.16,9.02,13.05,10] octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and synisomers or any combination thereof]	13560-89-9 135821-74-8 135821-03-3	Non-plastic flame retardants, Adhesives, Sealants, Binder
	176	Benz[a]anthracene	56-55-3 1718-53-2	Rubber production, Rubricant (Usually, it is not intentionally produced)
	177	Cadmium carbonate	513-78-0	pH regulator
	178	Cadmium hydroxide	21041-95-2	Manufacture of electrical, electronic and optical equipments.
18th	179	Cadmium nitrate	10022-68-1 10325-94-7	Manufacture of glass, porcelain and ceramic products.
	180	Chrysene	218-01-9 1719-03-5	Paints, Lubricants, Release agents (Usually, it is not intentionally produced)
	181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear]	—	Additives for lubricants and greases
19th (27 June 2018)				
19th	182	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (Trimellitic anhydride; TMA)	552-30-7	Synthesis of plasticizer for PVC resin, Wire and cable insulations, Epoxy curing agents, Rubber curing accelerators, Polyester resin
	183	Benzo[ghi]perylene	191-24-2	Components or impurities of other substances (Usually, it is not intentionally produced)
	184	Decamethylcyclotrisiloxane (D5)	541-02-6	Brighteners, Waxes, Cleaning products, Pigments
	185	Dicyclohexyl phthalate (DCHP)	84-61-7	Plasticizer for PVC, rubber and plastic products.
	186	Disodium octaborate	12008-41-2	Lubricating oil, Greases
	187	Dodecamethylcyclotrisiloxane (D6)	540-97-6	Brighteners, Waxes, Cleaning products, Pigments
	188	Ethylenediamine (EDA)	107-15-3	Adhesives, Sealing materials, Coated products
	189	Lead	7439-92-1	Metals, Weldings, Solderings, Metal surface treatment
	190	Octamethylcyclotrisiloxane (D4)	556-67-2	Brighteners, Waxes, Cleaning products, Pigments
	191	Terphenyl hydrogenated	61788-32-7	Plastic additives, Solvents, Adhesives, Sealing material, Inks
20th (15 January 2019)				
20th	192	1,7,7-trimethyl-3-(phenylmethylene)bicyclo [2.2.1]heptan-2-one (3-benzylidene camphor, 3-BC)	15087-24-8	Sunscreens, Cosmetics, Household products, Textiles for UV protection
	193	2,2-bis(4'-hydroxyphenyl)-4-methylpentane	6807-17-6	Surface coatings, Inks, Adhesives
	194	Benzo[k]fluoranthene	207-08-9	Coatings, Adhesives, Cleaning agents
	195	Fluoranthene	206-44-0 93951-69-0	Coatings, Adhesives, Cleaning agents
	196	Phenanthrene	85-01-8	Coatings, Paints, Binders, Release agents, Lubricants, Cleaning agents

	No.	Substance name	CAS RN	Examples of Use
20th (15 January 2019) (con't)				
20 <sup>th</sup>	197	Pyrene	129-00-0 1718-52-1	Coatings, Binders, Cleaning agents
21th (15 June 2019)				
21 <sup>th</sup>	198	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy) propionic acid, its salts and its acyl halides [covering any of their individual isomers and combinations thereof]	—	Processing aid in the production of fluorinated
	199	2-methoxyethyl acetate	110-49-6	Solvents, Resins, Paints, Inks, Acetate adhesives, Textile
	200	4-tert-butylphenol	98-54-4	Oil-soluble phenolic resin, UV absorber
	201	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)	—	Antioxidant to stabilise polymers.
22th (16 January 2020)				
22 <sup>th</sup>	202	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone	119313-12-1	Photopolymerization initiator for polymer production
	203	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one	71868-10-5	Photopolymerization initiator for polymer production
	204	Diisohexyl phthalate	71850-09-4	Polymer sealants, Plasticizers
	205	Perfluorobutane sulfonic acid (PFBS) and its salts	—	Catalysts for polymer production, Polycarbonate flame retardant
23th (25 June 2020)				
23 <sup>th</sup>	206	1-vinylimidazole	1072-63-5	A monomer in the production of polymers.
	207	2-methylimidazole	693-98-1	Rubber, Coating materials, Epoxy resin component, polymerization cross-linking agent and curing agent.
	208	Butyl 4-hydroxybenzoate	94-26-8	Functional fluids for small devices and PCs.
	209	Dibutylbis (pentane-2,4-dionato-O,O') tin	22673-19-4	Adhesives, Sealants, Paints, Thinner, Dyes, Impregnated products
24th (19 January 2021)				
24 <sup>th</sup>	210	bis(2-(2-methoxyethoxy)ethyl) ether	143-24-8	Solvent/extraction agent in inks and toners
	211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety	—	Diocetyl tin dilaurate is used in adhesives and sealants.
25th (8 July 2021)				
25 <sup>th</sup>	212	1,4-dioxane	123-91-1	Solvent
	213	2-(4-tert-butylbenzyl) propionaldehyde and its individual stereoisomers	75166-31-3 80-54-6 75166-30-2	Cleaners, Polishes, Wax blends
	214	•2,2-bis(bromomethyl) propane, 1,3-diol (BMP) •2,2-dimethylpropan-1-ol, tribromo derivative (TBNPA) •3-bromo-bis(bromomethyl)-1-propanol (TBNPA) •2,3-dibromo-1-propanol (2,3-DBPA)	3296-90-0 36483-57-5 1522-92-5 96-13-9	The manufacture of Polymer resin
	215	4,4'-(1-methyl propylidene) bisphenol; (bisphenol B)	77-40-7	The manufacture of phenolic and polycarbonate resins, Corrosion inhibitors
	216	Glutaral	111-30-8	Leather tanning, Biocide

No.	Substance name	CAS RN	Examples of Use	
25th (8 July 2021) (con't)				
25 th	217	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]	1372804-76-6 85535-85-9 — 198840-65-2	Polymers/rubbers, Adhesives, Sealants, Flame retardants, Plasticizing additives
	218	Orthoboric acid, sodium salt	25747-83-5 22454-04-2 14312-40-4 1333-73-9 13840-56-7 14890-53-0	Solvents, Corrosion inhibitors
	219	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)	210555-94-5 27459-10-5 27147-75-7 121158-58-5 74499-35-7 57427-55-1	Lubricant additives
26th (17 January 2022)				
26 th	220	(±)-1,7,7-trimethyl-3-[(4-methylphenyl)methylene]bicyclo [2.2.1]heptan-2-one covering any of the individual isomers and/or combinations thereof (4-MBC)	1782069-81-1 95342-41-9 852541-25-4 36861-47-9 741687-98-9 852541-30-1 852541-21-0	UV filters in cosmetics and skincare products
	221	6,6'-di-tert-butyl-2,2'-methylenedi-p-cresol (DBMC)	119-47-1	Antioxidants/stabilizers for polymers, Rubber additives, Lubricants, Sealants, Adhesives, Hydraulic fluids, Metalworking fluids
	222	S-(tricyclo[5.2.1.0 <sup>2,6</sup> ] deca-3-en-8(or 9)-yl) O-(isopropyl or isobutyl or 2-ethylhexyl) O-(isopropyl or isobutyl or 2-ethylhexyl) phosphorodithioate	255881-94-8	Lubricants, Additives, Greases
	223	tris(2-methoxyethoxy)vinylsilane	1067-53-4	Rubber/plastic manufacturing, Dispersions, Sealants, Non-metallic surface treatment solutions
27th (10 June 2022)				
27th	224	N-(hydroxymethyl)acrylamide	924-42-5	Monomer for polymerisation, paints /coatings
28th (17 January 2023)				
28 th	225	1,1'-[ethane-1,2-diylbisoxy] bis[2,4,6-tribromobenzene]	37853-59-1	Flame retardants for ABS
	226	2,2',6,6'-tetrabromo-4,4'-isopropylidenediphenol (tetrabromobisphenol-A; TBBPA)	79-94-7	Flame retardants
	227	4,4'-sulphonyldiphenol (bisphenol S; BPS)	80-09-1	Monomer for manufacture of PESU
	228	Barium diboron tetraoxide	13701-59-2	Paints, Coating
	229	bis(2-ethylhexyl) tetrabromophthalate covering any of the individual isomers and/or combinations thereof; bis(2-ethylhexyl) tetrabromo-phthalate; TBPH	— 26040-51-7	Flame retardants, Plasticiser, Insulation
	230	Isobutyl 4-hydroxybenzoate	4247-02-3	Manufacture of substances, Coating products, Fillers, Inks, Toners
	231	Melamine	108-78-1	Polymers, Resins, Coating products, Adhesives, Sealants

No.	Substance name	CAS RN	Examples of Use
28th (17 January 2023) (con't)			
28th	232	Perfluoroheptanoic acid and its salts • Perfluoroheptanoic acid • Sodium perfluoroheptanoate • Ammonium perfluoroheptanoate • Not applicable	375-85-9, 20109-59-5, 6130-43-4, 21049-36-5  Additives, Catalysts
	233	reaction mass of 2,2,3,3,5,5, 6,6-octafluoro-4-(1,1,1,2,3,3, 3-heptafluoropropan-2-yl) morpholine and 2,2,3,3,5,5,6, 6-octafluoro-4-(heptafluoro-propyl)morpholine	—  Formulation, Re-packing
29th (14 June 2023)			
29th	234	bis(4-chlorophenyl) sulphone	80-07-9  Additives
	235	Diphenyl(2,4,6-trimethylbenzoyl)phosphine oxide	75980-60-8  Inks, Toners, Coatings, Adhesives, Sealants, Polymers, Fillers, Plastics
30th (23 January 2024)			
30th	236	2,4,6-tri-tert-butylphenol	732-26-3  Intermediate
	237	2-(2H-benzotriazol-2-yl)-4-(1,1,3,3-tetramethylbutyl) phenol (UV-329)	3147-75-9  Coatings, Adhesives, Sealants, Lubricants, Greases
	238	2-(dimethylamino)-2-[(4-methylphenyl) methyl]-1-[4-(morpholin-4-yl) phenyl]butan-1-one	119344-86-4  Inks, Toners, Coatings
	239	Bumetrizole (UV-326)	3896-11-5  Coatings, Adhesives, Sealants
	240	Oligomerisation and alkylation reaction products of 2-phenylpropene and phenol	— 68512-30-1  Adhesives, Sealants, Coatings, Fillers, Inks, Toners, Polymers

The reference numbers in the table are given for the sake of convenience. There is no official number.

## Green Procurement Guidelines

Japanese : <https://www.janome.co.jp/esg/pdf/greensupply.pdf>

English : [https://www.janome.co.jp/esg/pdf/greensupply\\_e.pdf](https://www.janome.co.jp/esg/pdf/greensupply_e.pdf)

Chinese : [https://www.janome.co.jp/esg/pdf/greensupply\\_c.pdf](https://www.janome.co.jp/esg/pdf/greensupply_c.pdf)

## JANOME Corporation

### JANOME Group Green Procurement Guidelines

For query regarding this Guidelines, contact :  
Environmental Management Promotion Department

Phone : +81-42-661-2853

Fax : +81-42-661-2177

For query regarding goods delivered, contact : Relevant section for delivery