

**Stanley Product Chemical substance management  
Standard (SPCS)  
(Ver. 5)**

**Date implemented: December 25, 2023**

**STANLEY ELECTRIC CO., LTD.**

**Stanley Group**

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## Introduction

Through this standard, the Stanley Group (hereinafter referred to as “Stanley”) clearly specifies management criteria for the chemical substances contained within the parts and materials we procure in order to prevent the intermixing of prohibited substances within Stanley products and processes.

## 1. Applicable Scope

This standard shall apply to all parts, materials, sub-materials, packaging materials, and so forth that comprise the products procured by Stanley, as well as to the suppliers that provide them.

In addition, these apply to suppliers whom Stanley outsources the assembly of parts, materials, and processes (forming, surface treatment, etc.).

[Examples of applicable parts and materials]

- Parts, units, materials, and accessories such as instruction manuals
- Sub-materials used in products (such as adhesive tapes, soldering materials, adhesive agents, ink, etc.), also including sub-materials that could potentially be adhering to or residually remaining within products.
- Including instruction manuals

## 2. Definitions of Terminology

### 1) Containment

Whether the containment is intentional or not, it means that substances are contained in, adhere to, or are mixed in with parts and/or materials that form Stanley products. In addition, those generated unintentionally during manufacturing processes are included as well.

### 2) Intentional containment

This refers to intentionally including a substance in a part or material in order to improve its performance or change its properties.

In addition, it is regarded as intentional containment when the use of the substance in question within manufacturing processes or its inclusion within end products is obvious.

### 3) Impurities

Substances that are contained in natural materials and cannot be excluded during refining processes, or those that are generated in reaction processes and cannot be excluded through technological means.

### 4) Standard value (allowable concentration)

Contained amount of a substance included in parts or materials or the maximum allowable value for the containment concentration.

When a compound part contains multiple materials in its parts, the containment concentration is not the value obtained by taking the parts as a whole as the denominator, but the concentration obtained in terms of the homogeneous material that contains the target substance.

### 5) Homogeneous material

Materials that are uniformly composed as a whole and cannot be mechanically separated into other materials.

(Examples: Metal alloys, polymer alloys, compounds, paint, adhesive agents, ink, paste, resin polymers, glass powder, ceramic powder, etc.)

Since parts that are painted, printed, or coated can be separated mechanically into material parts and each of their painted, printed or coated parts, these are each homogeneous materials. “Mechanical separation” means to separate materials by mechanical behavior like removing screws, cutting, smashing, grinding, abrading, etc.

### 6) Mixture

A material in which two or more different substances are blended together without changing their natures and which can be separated out (by crystallization, evaporation, sublimation, filtration, etc.) without using other substances.

### 7) CMS (Chemical substance Management System)

Management of substances contained in products shall be conducted properly throughout each process from the procurement of raw materials through to their production and shipping. Stanley defines it according to the Guidelines for the Management of Chemical Substances in Products issued by the Joint Article Management Promotion-consortium (JAMP).

**8) JAPIA Standard Material Datasheet**

A datasheet standardized by the Japan Auto Parts Industries Association (JAPIA) to investigate the substances contained in products.

**9) IMDS (International Material Data System)**

Management system operated by major global automobile makers to collect and manage information regarding materials and chemical substances.

**10) GADSL (Global Automotive Declarable Substance List)**

Global Automotive Declarable Substance List Refer to <https://www.gadsl.org/>

**11) chemSHERPA CI**

A basic information communication sheet recommended by the Ministry of Economy, Trade and Industry and operated by JAMP (Joint Article Management Promotion-consortium) to transmit information on chemical substances contained in products (substances/mixtures).

**12) chemSHERPA AI**

A basic information communication sheet recommended by the Ministry of Economy, Trade and Industry and operated by JAMP to transmit information on chemical substances contained in molded product (articles).

### 3. Compliance Items

As a general rule, Stanley refrains from purchasing parts and materials that contain prohibited substances. However, this excludes the exemptions from Table 1 and the items for which reports are required from Tables 6 and 8.

In addition, Stanley has established management criteria for the chemical substances contained in products which suppliers must comply with.

If the customers to which Stanley delivers its products submit management criteria for the chemical substances contained in our products, then we must comply with these as well.

#### 1) Compliance with the Stanley Product Chemical Substance Management Standard (SPCS)

- The chemical substances contained in the raw materials, parts, products, sub-materials (when these are affixed to products), and packaging materials (hereinafter referred to as “articles”) procured by Stanley, as well as the chemical substances used in the manufacturing stage, are managed by being classified as either “Prohibited (with exemptions)”, “Scheduled to be prohibited,” or “Declarable” as indicated in “Table 1. Definition of control levels”. Suppliers must comply with the requirements in this standard.
- Even for those substances not classified as “Prohibited”, in cases where there are laws and regulations in a foreign country or region to which products are to be delivered (such as in cases where products are delivered overseas, etc.), then Stanley must follow the laws and regulations in question (instructions will be given from each business division).

<Table 1. Definition of control levels>

Control levels	Definition
Prohibited	<p>Do not include more than the standard value in delivered products.            If a deadline has been specified, then the substance cannot be included in the delivered goods in excess of the standard value on or after the deadline.            In the event of intentional containment (even if this is below the standard value), it shall be regarded as being prohibited.            If a prohibited substance (by-product) classified as Category I Specified Chemical Substances under Japan’s Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc., is unintentionally contained, Stanley will discuss with our suppliers to determine the necessary actions to be taken.</p>
Exemptions	<p>The inclusion of the substance in delivered goods is not prohibited, but only for specific uses.            Cases of intentional containment where the substance is included over and above the allowable concentration as an exception must be treated as a case of containment and reported.            If an exemption end date has been stipulated, this must be escalated to Stanley before said end date, and a changeover date must be determined by consultations between both parties and the changeover must be completed by this date.</p>
Scheduled to be prohibited	<p>For substances approaching the period from which they will be prohibited, the changeover must be completed by the deadline.            In addition, if an exemption end date has been stipulated, this must be escalated to Stanley before said end date, and a changeover date must be determined by consultations between both parties and the changeover must be completed by this date.            In the event of intentional containment (even if this is below the standard value), it shall be regarded as being prohibited.</p>
Declarable	<p>When substances are intentionally contained within delivered goods, this must be reported to Stanley.            Cases of non-intentional containment over and above the allowable concentration, such as with impurities or the like, must also be reported.</p>

- 2) Instructions for compliance with this standard in drawings
- Stanley includes the statement, “The latest version of the Stanley Product Chemical Substance Management Standard shall be satisfied,” in all of our drawings and specifications provided to our suppliers and instructs said suppliers to comply with this standard.  
In addition, if the management criteria for chemical substances in products from customers are more stringent, then Stanley will submit said management criteria from our customers and include the statement, “The latest version of our customer’s management criteria for chemical substances in products shall be satisfied.”  
If drawings and specifications do not contain the statements listed above, then suppliers must comply with this standard.
- 3) Establishment of the Chemical Substance Management System (CMS)
- According to both domestic legal regulations and those of other countries as well, the chemical substances contained in products must be managed.  
In order to comply with these requirements, each company has to carry out “appropriate and effective management” regarding the chemical substances contained in products through their supply chains.
- As such, suppliers must establish and improve CMS according to “Guidelines for the Management of Chemicals in Products Annex Check Sheet (latest version)” issued by JAMP.
- Progress reports on the CMS must be made once a year according to the “Guidelines for the Management of Chemicals in Products Annex Check Sheet (latest version)” and submitted together with a self-evaluation (to be stored for a period of three years) when requested by Stanley.  
Suppliers that function as trading companies are instructed to perform self-evaluations (to be stored for a period of three years) once a year on the manufacturers of delivered articles according to the “Guidelines for the Management of Chemicals in Products Annex Check Sheet (latest version)” and submit these when requested by Stanley.
  - Based upon the evaluation results by Stanley and requests from our customers, on-site inspections and audits of manufacturing processes may be required.
- 4) Surveys of and reports on chemical substances contained in products
- Suppliers must survey the information on chemical substances in products with respect to the products, parts, materials, sub-materials, packaging materials, and so forth supplied to Stanley based on the Stanley Product Chemical Substance Management Standard and other documents and comply with requests to report this. The submission forms are based on those in “Table 2. Submission forms for information on chemical substances contained in products,” and will be designated when the survey is requested.  
Although the tentative use of non-use certificates without data (IMDS, JAPIA Standard Data Sheet, chemSHERPA-AI/CI) is permitted, the final response shall include data.  
Moreover, in some cases responses can be submitted via a different form (e.g., composition table).
  - The latest versions of each form and their input fields can be obtained and referenced from the URLs in Table 2.
  - Suppliers must report to Stanley immediately when it has been confirmed that prohibited substances are contained within goods delivered to Stanley or articles that are scheduled to be delivered.
  - In some cases, we may share information submitted to Stanley internally within the company and use it to manage chemical substances at our company and to comply with investigations from our customers. In addition, we may also disclose it to third parties as information on Stanley products for the sake of legal compliance.

<Table 2. Submission forms for information on chemical substances in products>

Submission form	Submission standards		Remarks
	Substance and mixture	Article	
(a) IMDS	○ (Automobile equipment)	○ (Automobile equipment)	<a href="https://www.mdssystem.com/imdsnt/startpage/index.jsp">https://www.mdssystem.com/imdsnt/startpage/index.jsp</a> Send IMDS data to Stanley ID (7255) and email the person in charge of requests about the data submission.
(b) JAPIA Standard Material Datasheet	◆ (Automobile equipment)	◆ (Automobile equipment)	<a href="https://www.japia.or.jp/work/kankyou/japiasheet/">https://www.japia.or.jp/work/kankyou/japiasheet/</a>
(c) chemSHERPA AI	—	○ (Electronic equipment)	<a href="https://chemsherpa.net/tool">https://chemsherpa.net/tool</a>
(d) chemSHERPA CI	○ (Electronic equipment)	—	<a href="https://chemsherpa.net/tool">https://chemsherpa.net/tool</a>
Certificate of the Non-Use of Prohibited Substances	◆	◆	Form-1 *Although tentative use is permitted, the final response shall include data (e.g., (a), (b), (c), (d), composition table).
Analysis data	◆	◆	Notification of targeted articles and analysis methods will be sent separately.

○ : Generally required (to be answered by (a), (c), or (d))

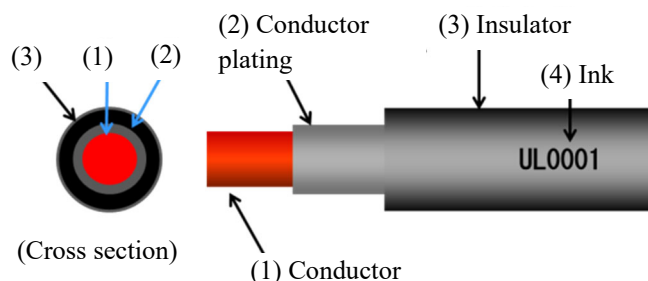
◆ : Requested as needed

- : Submission not required

5) Calculating the containment concentration

- The concentration of prohibited substances shall be calculated for each “homogeneous material”. The content concentration of each homogeneous material used in the product shall be less than the standard value. A specific example of a homogeneous material is shown in Fig. 1.
- The denominator in the concentration calculation is defined as the “Mass of the homogeneous material,” while the numerator is defined as the “Mass of the regulated substance contained in the homogeneous material.” But for metallic compounds, this is to be calculated by converting this to the weight of just the metallic components.

<Fig. 1. Specific examples of a homogeneous material>



[Example for the % of DEHP contained in an insulator]

$$\% \text{ of DEHP contained} = \frac{\text{Amount of DEHP contained}}{\text{Gross mass of (3) Insulator}}$$

6) Managing information on changes

When it has come to light that there have been any of the following changes to the information on chemical substances contained in products (submission forms (a) - (d)), suppliers must immediately revise the applicable submission form and convey the information to the department in charge of this at Stanley.

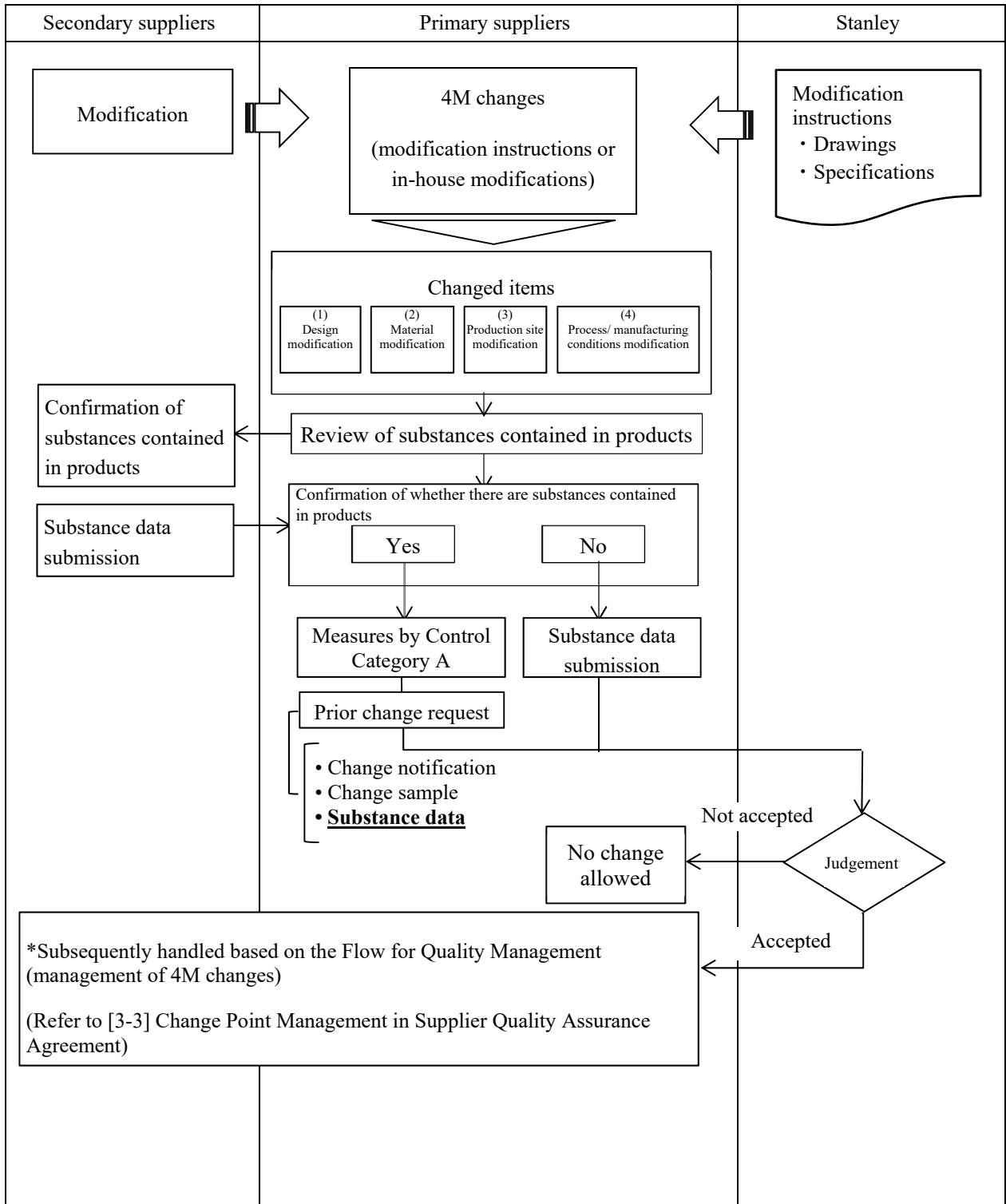
- (1) When controlled substances (such as SVHC) are newly added via legal revisions or the like
- (2) When errors in the details of the information conveyed (amount of substances contained) comes to light
- (3) When there have been changes to the details of the information conveyed from upstream companies (your suppliers).
- (4) When 4M changes have occurred. In cases where, regardless of the control levels, the changes fall under the category of: (1) design modification, (2) material modification, (3) production site modification, or (4) process/manufacturing conditions modification, we ask that another survey or revisions be performed, and that the data on the substances be resubmitted. If there are any changes to the chemical substances contained in products, we ask that you handle these henceforth as Control Category A. Flow for surveying chemical substances in products (when there are 4M changes)).

7) Certificate of the Non-Use of Prohibited Substances

- Regardless of the control levels, Stanley may require the submission, “Form 1: Certificate of the Non-Use of Prohibited Substances” to obtain guarantees that no prohibited substances are used in a product.



<Fig. 2: Flow for surveying chemical substances in products (when there are 4M changes)>



8) Other Compliance Items

(1) Request for the submission of data

The data to be submitted in Table 3 must be submitted within the specified time limit.

Stanley will provide notice regarding the forms to be submitted for (1), (2), and (3) when it requests their submission.

(2) Handling of information

The information obtained will be shared internally within Stanley.

As a general rule, this information will not be disclosed externally, but when it must be disclosed this will be handled via consultations.

< Table 3. List of data to be submitted >

Initiatives	Data to be submitted	Time to submit				Remarks
		Legal revisions (when a controlled substance is added)	When there are 4M changes	Individual request	When initiating a new transaction	
Compliance with the management criteria for chemical substances in products	(1) "Guidelines for the Management of Chemicals in Products Annex Check Sheet (latest version)" issued by JAMP			○	○	<ul style="list-style-type: none"> <li>• Applies to all suppliers</li> <li>• Obtain via the JAMP website <a href="https://chemsherpa.net/docs/guidelines">https://chemsherpa.net/docs/guidelines</a></li> </ul>
	(2) Data on the chemical substances in products	○	(*) ○	○		<ul style="list-style-type: none"> <li>• Can be obtained from the URLs in Table 2.</li> </ul>
	(a) IMDS					
	(b) JAPIA Standard Material Datasheet					
(c) chemSHERPA AI						
(d) chemSHERPA CI						
(3) Certificate of the Non-Use of Prohibited Substances (Form-1)			○			
(4) Analysis data			○			

\* Cases where, regardless of the control levels, the 4M changes fall under the category of (1) design modification, (2) material modification, (3) production site modification, and (4) process/manufacturing conditions modification.

## 4. Chemical Substances in Products

### 1) Laws and ordinances of major countries

The laws and ordinances of major countries are shown in Table 4. These laws and ordinances must be complied with when it comes to prohibited substances and the control scope must be clarified.

<Table 4. Laws and ordinances of major countries>

Region	Law/ordinance	Regulations/prohibited substances
Japan	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Category I specified chemical substances from Japan's Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. <a href="https://www.meti.go.jp/policy/chemical_management/kasinhou/about/class1specified_index.html">https://www.meti.go.jp/policy/chemical_management/kasinhou/about/class1specified_index.html</a>
Europe	EU REACH Regulation	EU REACH Regulation (EC) No 1907/2006 <a href="https://echa.europa.eu/information-on-chemicals">https://echa.europa.eu/information-on-chemicals</a>
	EU ELV Directive	EU ELV Directive 2011/37/EU <a href="https://environment.ec.europa.eu/topics/waste-and-recycling/end-life-vehicles_en">https://environment.ec.europa.eu/topics/waste-and-recycling/end-life-vehicles_en</a>
	EU RoHS Directive	EU RoHS Directive 2011/65/EU <a href="https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en">https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en</a>

### 2) Automobile products

#### (1) Control scope

The control scope for the chemical substances in automobile products (including automobile electric/electronic products) required by Stanley is shown in Table 5.

<Table 5. Control scope for automobile products>

Control scope	Regulations
GADSL	Manufacturers of automobiles, automotive parts, and chemicals from Japan, the US, and Europe must perform joint reviews and refer to the Global Automotive Declarable Substance List regarding the substances contained in the raw materials, parts, and so forth in automobiles. They must confirm the text of the relevant laws and regulations (latest versions). <a href="https://www.gadsl.org/">https://www.gadsl.org/</a>

(2) Control levels

The control levels of “Prohibited,” “Scheduled to be prohibited,” and “Declarable” for the controlled criteria are shown in Table 6.

The declarable substances found in vehicle materials and parts are displayed as either “P” or “D” as described below.

<Table 6. Control levels>

Control levels	Targeted substances
Prohibited	Of the chemical substances stipulated in the GADSL, those chemical substances from Categories P and D/P that correspond to P and chemical substances for which a deadline has been designated that have already exceeded their end date
	Four chemical substances stipulated in Annex 2 as exemptions from specially controlled substances (lead, mercury, hexavalent chromium, and cadmium), and chemical substances that have already exceeded their end date
	Chemical substances in Annex 1 that fall under the category of specially controlled substances, and chemical substances for which a deadline has been designated that have already exceeded their end date
Scheduled to be prohibited	Of the chemical substances stipulated in the GADSL, those chemical substances from Categories P and D/P that correspond to P and chemical substances for which a deadline has been designated that are approaching their end date henceforth *In the case of those for which a deadline has been designated, changeover must be completed one year before their end date
	Chemical substances stipulated in Annex 1 as specially controlled substances for which a deadline has been designated that are approaching their end date henceforth
	Four chemical substances stipulated in Annex 2 as exemptions from specially controlled substances (lead, mercury, hexavalent chromium, and cadmium), and chemical substances that are approaching their end date henceforth
Declarable	Of the chemical substances stipulated in the GADSL, those chemical substances from Categories D and D/P that correspond to D
	Of the substances stipulated as Specially Controlled Substances in Annex 1, those substances from Categories D and D/P that correspond to D

[Explanation of categories]

P (Prohibited) : Substances that are prohibited and must not be included in products pursuant to laws/regulations.

D (Declarable) : Substances that must be reported if they are included in a product.

D/P : Substances that may be classified as either P or D depending on the purpose for which they are used or the requests of the supplier.

(3) Exemptions from Specially Controlled Substances (Automobile Products) Shown in Annex 2.

3) Electric/electronic products

(1) Control scope

The control scope for the chemical substances in electric/electronic products (excluding automobile products) required by Stanley is shown in Table 7.

<Table 7. Control scope for electric/electronic products>

Control scope	Regulations
Controlled substances pursuant to chemSHERPA	Category I specified chemical substances from Japan’s Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.
	Substances that are prohibited or subject to restrictions pursuant to the US’s Toxic Substances Control Act (TSCA; Sec. 6)
	EU ELV Directive ANNEX II
	EU RoHS Directive
	EU POPs Regulation ANNEX I
	EU REACH Regulation Candidate List of SVHC for Authorization and ANNEX XIV (substances for authorization)
	EU REACH Regulation ANNEX XVII (restricted substances)
	EU Medical Device Regulation (MDR) ANNEX I 10.4 Substances
	Global Automotive Declarable Substance List (GADSL)
	IEC 62474 DB Declarable substance groups and declarable substances

(2) Control levels

The control levels of “Prohibited,” “Scheduled to be prohibited,” and “Declarable” for chemical substances are shown in Table 8.

<Table 8. Control levels>

Control levels	Targeted substances
Prohibited	Ten chemical substances stipulated in RoHS (lead, mercury, hexavalent chromium, cadmium, polybrominated biphenyls, polybrominated diphenyl ether, bis(2-ethylhexyl) phthalate, dibutyl phthalate, butyl benzyl phthalate, diisobutyl phthalate), and chemical substances that have already exceeded their end date via exemptions
	Chemical substances that fall under the category of Prohibited in Annex 3 as specially controlled substances
Scheduled to be prohibited	Chemical substances exempted from the ten chemical substances stipulated in the RoHS for which a deadline has been designated that are approaching their end date henceforth * In the case of those for which a deadline has been designated, changeover must be completed one year before their end date
	Chemical substances that fall under the category of scheduled to be prohibited in Annex 3 as specially controlled substances
Declarable	Chemical substances falling under the category of Declarable in Annex 3 as specially controlled substances

(3) Exemptions from Annex III of the RoHS Directive

Shown in Annex 4.

For details, check the text of the relevant laws and ordinances listed below (latest versions).  
[https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive\\_en](https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en)

(4) Exemptions from Annex IV of the RoHS Directive

Shown in Annex 5.

For details, check the text of the relevant laws and ordinances listed below (latest versions).  
[https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive\\_en](https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive_en)

4) Packaging materials

(1) Control scope

The control scope for the chemical substances in packaging materials required by Stanley is shown in Table 9.

<Table 9. Control scope for packaging materials>

Control scope	Regulations
Special heavy metals	<ul style="list-style-type: none"><li>• EU Packaging and Packaging Waste Directive 94/62/EC</li><li>• US regulations on heavy metals in packaging materials (TIP)</li></ul>
Phthalate esters	<ul style="list-style-type: none"><li>• Directive 2015/863/EU on the authorization of the European Commission revising EU RoHS Directive 2011/65/EU</li><li>• EU REACH Regulation (EC) No 1907/2006 ANNEX XVII (restricted substances)</li></ul>
Mineral oil	French domestic regulation on mineral oil

(2) Control levels

The control level of “Prohibited” chemical substances is shown in Table 10.

<Table 10. Control levels>

Control levels	Targeted substances
Prohibited	Chemical substances falling under the category of Prohibited in Annex 6 as specially controlled substances

## Revision History

Ver.	No. Date revised	Major revisions
(Ver. 1)	September 2, 2019	<ul style="list-style-type: none"> <li>The requirements pertaining to controlling chemical substances in products were removed from the Green Procurement Guidelines and enacted in the form of the Stanley Product Chemical Substance Management Standard.</li> </ul>
(Ver. 2)	September 22, 2020	<ul style="list-style-type: none"> <li>“AIS” and “MSDSplus” were deleted from “2. Definitions of Terminology”</li> <li>“AIS” and “MSDSplus” were deleted from Table 2 and the descriptions of IMDS and JAMA in the table were changed</li> <li>“AIS” and “MSDSplus” were deleted from Table 3</li> <li>Contents of exemptions and details for deadline designation in Table 6 were changed</li> <li>Details for deadline designation in Table 8 were changed</li> <li>The name and contents of Annex 2 were changed</li> <li>The contents of Annexes 1, 2, 3, 4, 5 and 6 were changed</li> </ul>
Ver. 3	September 28, 2021	<ul style="list-style-type: none"> <li>Changed “JAMA/JAPIA Standard Material Datasheet” to “JAPIA Standard Material Datasheet” in 8) of “Definition of Terminology” and Table 2/Table 3</li> <li>Modified wording in 6) of “3. Compliance Items” and Fig. 2</li> <li>Added content for “Declarable” in Table 6</li> <li>Added “EU Medical Device Regulation” under “Rules” in Table 7</li> </ul>
Ver. 4	December 1, 2022	<p>Table of Contents, 3. Compliance Items 4) Table 2, 7), 8) Table 3            Changed “Certificate of the Non-Containment” to “Certificate of the Non-Use”            3. Compliance Items 3), 8) Table 3            Changed “Check Sheet specified by Stanley” to “Check Sheet issued by JAMP”            3. Compliance Items 4), 4) Table 2            Added the wording “Certificate of the Non-Use”            4. Chemical Substances in Products 2), 3)            Added content</p>
Ver. 5	December 25, 2023	<ul style="list-style-type: none"> <li>4) of “2. Terminology”, 1) and 5) of “3. Compliance items”                “Threshold Value” → “Standard Value”</li> <li>1) of “3. Compliance items”                Added content</li> <li>1) of “4. Chemical substances in products” “                URL correction</li> <li>4) of “4. Chemical substances in products”                Added mineral oil</li> </ul>

[For inquiries concerning this document]

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Ver. 5 December 25, 2023

● Details of revisions

Main text

- Changed “Threshold Value” to “Standard Value” in 4) of “2. Terminology” and 1) and 5) of “3. Compliance Items” (p1,3,5)
  - Added content in “1) of “3. Compliance Items” (p3)
  - Corrected the URL in 1) of “4. Chemical Substances in Products” (p9)
  - Added mineral oil to 4) of “4. Chemical Substances in Products” (p12)
- \*Corrected errors, strengthened management

Annex 1. Specially Controlled Substances (Automobile Products)

- Changed “Regulation Value” to “Standard Value” (p14-27)
  - Changed substances with disparities from the GADSL (p14-33)
- \* Strengthened management, Revised Our requirements based on the February version of GADSL2023

Annex 2. Exemptions from Specially Controlled Substances (Automobile Products)

- Reflected ELV Annex II revisions (March 2023), revised content (p34-36)
- \*Reflected revised regulations, strengthened management

Annex 3. Specially Controlled Substances (Electric / Electronic Products)

- Changed “Threshold Level” to “Standard Value” (p37-59)
  - Added the battery directive to “Prohibited”, moved one substance group from “Declarable” to “Prohibited” (p37,38)
  - Added three substance groups to “3. Declarable” (p59)
- \* Strengthened management.

Annex 4. Exemptions from Annex III of the EU RoHS Directive

- Changed the scope of application and deadline format, revised content (p60-66)
- \*Reflected revised regulations, strengthened management

Annex 5. EU RoHS Directive Annex IV Applications exempted from the restriction

- Changed the scope of application and deadline format, revised content (p67-70)
- \*Reflected revised regulations, strengthened management

Annex 6. Specially Controlled Substances (Packaging Materials)

- Changed “Threshold Level” to “Standard Value” (p71,72)
  - Added mineral oil to “1. Prohibited” (p72)
  - Added mineral oil to “2. Scheduled to be prohibited” (p72)
- \* Strengthened management.



## Annex 1. Specially Controlled Substances (Automobile Products)

Substances for which there are differences with the February version of the FY2023 GADSL are indicated below. (The details of GADSL shall be complied with for substances not shown here.)

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
17	Arsenic and its compounds, all members	12006-15-4 3687-31-8 7784-40-9 10102-48-4 7645-25-2 10031-13-7 7784-37-4 1303-28-2 58-36-6	D/P	D/P	Intentional use prohibited	Fouling prevention for ship hulls and submerged objects, rot prevention for wood materials	EU-R 1907/2006 Annex XVII
		7778-39-4 53404-12-9 1327-53-3	D/P	D/P	Intentional use prohibited	All uses (excluding semiconductors/LEDs, lead batteries, copper in PCBs, titanium gold plating)	
18	Asbestos fibers, all members	77536-66-4 12172-73-5 77536-67-5 12001-29-5 12001-28-4 77536-68-6	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	EU-R 1907/2006 Annex XVII
		1332-21-4 13768-00-8 14567-73-8 17068-78-9 12172-67-7 132207-32-0	D/P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	
44	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1	D	P	Use prohibited when greater than 0.1% by weight	All uses	EU-R 1907/2006 Annex XIV
55	Cadmium and its compounds, all members	12656-57-4 58339-34-7 12626-36-7	P	P	(1) Use prohibited when greater than 0.01% by weight (2) Use prohibited when greater than 0.002% by weight	(1) Batteries for electric vehicles and all applications except for the following:  (2) Button cells and batteries for driving, starting, ignition, and lighting	ELV 2006/66/EC
		CAS RN list *1	D/P	D/P			
56	Chlorinated hydrocarbons, selected	71-55-6	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	EU-R 1005/2009
57	Chlorinated or brominated Dibenzo-p-dioxins or Dibenzofurans, all members	CAS RN list *2	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	POPs Convention
58	Chlorinated paraffins, short & medium chain length (SCCP, MCCP), all members: Note that the use of specific CAS numbers for these substances differs throughout the world. Example CAS numbers are provided below; however, other CAS numbers may be used that are not specific to chain length. Therefore, please consult your MSDS and supplier to determine product-specific chain length.	108171-26-2 85535-84-8 71011-12-6	P	P	Intentional use prohibited (unintentional usage in mixtures is prohibited when greater than or equal to 1% by weight and in molded parts when greater than or equal to 0.15% by weight) *However, usage of short-chain chlorinated paraffin by-products is possible when a BAT application has been approved by the Three Ministries (Japanese Ministry of Health, Labour and Welfare (MHLW), Japanese Ministry of Economy, Trade and Industry (METI) and Japanese Ministry of the Environment (MOE).	All uses	EU 2015/2030 EU 519/2012 POPs Convention Japan Chemical Substance Control Law
		CAS RN list *3	P	P	Usage in mixtures is prohibited when the concentration of short-chain chlorinated paraffins in medium-chain and other classes of chlorinated paraffins is greater than or equal to 1% by weight and in molded parts when greater than or equal to 0.15% by weight) *However, usage of short-chain chlorinated paraffin by-products is possible when a BAT application has been approved by the Three Ministries (Japanese Ministry of Health, Labour and Welfare (MHLW), Japanese Ministry of Economy, Trade and Industry (METI) and Japanese Ministry of the Environment (MOE).	All uses including short-chain chlorinated paraffins (C10-13)	
		84082-38-2 85422-92-0 85681-73-8 85536-22-7 84776-07-8 85049-26-9	D/P	D/P			
		85535-85-9 51990-12-6	D	D/P			

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)	
			Category	Category	Standard value	Main uses		
67	Cyclododecane, hexabromo- (HBCD)	25637-99-4 3194-55-6 134237-50-6 134237-51-7 134237-52-8	P	P	<ul style="list-style-type: none"> <li>Intentional use prohibited</li> <li>Unintentional use prohibited when greater than 0.01% by weight</li> </ul>	All uses	EU 2019/1021 POPs Convention Japan Chemical Substance Control Law	
		4736-49-6 65701-47-5 138257-17-7 138257-18-8 138257-19-9 169102-57-2 678970-15-5 678970-16-6 678970-17-7	D/P	D/P				
82	Diorganotin compounds	Dibutyltin compounds, CAS RN list *4	D/P	D/P	0.1% (use prohibited at tin-equivalent weight concentrations in molded products or parts)	All uses	EU-R 1907/2006 Annex XVII	
		Diocetyl tin compounds, CAS RN list *4	D/P	D/P		Parts that come in regular contact with skin		
92	Dodecachloropentacyclo 1, 3, 4-Metheno-1H-cyclobuta(cd)pentalene, Mirex	2385-85-5	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	POPs Convention Japan Chemical Substance Control Law	
107	Hexachlorobenzene	118-74-1	D/P	P	Intentional use prohibited Unintentional use prohibited when greater than 0.001% by weight (However, it can be used only when BAT application for PCB, which is a by-product of the parts of equipment destined for Japan, is applied to the three ministries and approved)	All uses	Japan Chemical Substance Control Law	
108	Hexachloro-1,3-butadiene (HCBD)	87-68-3	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	EU 2019/1021	
109	Hexachlorocyclohexane, gamma isomer, Lindane	58-89-9	D	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	POPs Convention Japan Chemical Substance Control Law	
114	Hydrobromofluorocarbons (HBFC's), all members	CAS RN list *6	P	P	Intentional use prohibited	All uses	EU-R 1005/2009	
115	Hydrochlorofluorocarbons (HCFC's), all members	127564-92-5 134190-52-6 127404-11-9 127564-83-4 116890-51-8	P	P	Intentional use prohibited	All uses	EU-R 1005/2009	
		CAS RN list *7	D/P	D/P				
116	Hydrofluorocarbons (HFC's), saturated, all members	CAS RN list *8	D/P	D/P	Intentional use prohibited	All uses	EU-R 1005/2009	
123	Lead and its compounds, all members	598-63-0 1319-46-6 7446-14-2 15739-80-7	D/P	D/P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	Lead sulfate and lead carbonate in coatings	EU-R 1907/2006 Annex XVII	
		12069-00-0	P	P	Use prohibited when greater than 90 ppm (0.009% by weight) (using dried coating film as the denominator)	Coatings		ELV
		CAS RN list *9	D/P	D/P	Intentional use prohibited	Fuel additives		
					Use prohibited when greater than 0.1% by weight	All uses of lead except the following		
				Use prohibited when greater than 0.1% by weight	Lead at or below restricted levels allowed by GADSL			

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
124	Mercury and its compounds, all members	CAS RN list *10	D/P	D/P	Intentional use prohibited	All uses of mercury except the following	ELV EU-R 1907/2006 Annex XVII
					Use prohibited when greater than 0.1% by weight	Mercury at or below restricted levels allowed by GADSL.	
					Use prohibited when greater than 0.1% by weight	Headlight discharge lamps	
					Use prohibited when greater than 0% by weight	Switches and relays	Japanese Domestic Law
					Use prohibited when greater than 5mg	Compact lamps or bulb-type fluorescent lamps for general lighting of 30 W or less (mercury content per one arc tube)	
					Use prohibited when greater than 5mg	Straight-tube fluorescent lamps for general lighting of less than 60 W that are either a three-wavelength type or that use phosphor with halo-phosphate as a main component	
					Use prohibited when greater than 0% by weight	High-pressure mercury lamps for general lighting	
					Use prohibited when greater than 3.5mg	CCFL (Cold Cathode Fluorescent Lamp) and EEFL (External Electrode Fluorescent Lamp) for displays when their length is 0.5 m or less	Japanese Domestic Law
					Use prohibited when greater than 5mg	CCFL (Cold Cathode Fluorescent Lamp) and EEFL (External Electrode Fluorescent Lamp) for displays when their length exceeds 0.5 m but is less than 1.5 m	
					Use prohibited when greater than 13mg	CCFL (Cold Cathode Fluorescent Lamp) and EEFL (External Electrode Fluorescent Lamp) for displays when their length exceeds 1.5 m	
Use prohibited when greater than 0% by weight	Batteries other than button cells	EU-R 1907/2006 Annex XVII					
Use prohibited when greater than 0% by weight	Button cells other than those listed below.						
Use prohibited when greater than 0.0005% by weight	Silver oxide button cells with a mercury content of less than 1% or zinc-air button cells with a mercury content of less than 2%						
		5902-76-1	P	P	Use prohibited when greater than 0% by weight	All uses	Japan Chemical Substance Control Law
		62-38-4 103-27-5 13302-00-6 26545-49-3	P	P	Use prohibited when greater than 0.01% by weight (total for one of four substances or total for multiple substances)	All uses	EU-R 1907/2006 Annex XVII
135	Monomethyldibromodiphenylmethane	99688-47-8	P	P	Intentional use prohibited	All uses	EU-R 1907/2006 Annex XVII
136	Monomethyldichlorodiphenylmethane	81161-70-8	P	P	Intentional use prohibited	All uses	EU-R 1907/2006 Annex XVII
137	Monomethyltetrachlorodiphenylmethane	76253-60-6	P	P	Intentional use prohibited	All uses	EU-R 1907/2006 Annex XVII
157	Pentachlorobenzene	608-93-5	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	POPs Convention
158	Pentachlorophenol (PCP) and its salts and esters, all members	5902-76-1 87-86-5 7778-73-6 131-52-2 2917-32-0	P	P	Use prohibited when greater than 0% by weight (Unintentional use prohibited when greater than 0.0005% by weight)	All uses	Japan Chemical Substance Control Law

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
166	PFOA and its salts	CAS RN list *11	P	P	Use prohibited when greater than 25 ppb (However, it can be used only when BAT application for PCB, which is a by-product of the parts of equipment destined for Japan, is applied to the three ministries and approved.)	All uses except the following	EU 2019/1021 Japan Chemical Substance Control Law
					Use prohibited when greater than 1,000 ppb (However, it can be used only when BAT application for PCB, which is a by-product of the parts of equipment destined for Japan, is applied to the three ministries and approved.)	Ingredient in PTFE micropowders produced using irradiation or pyrolysis (using micropowder weight as the denominator)	EU 2019/1021 Japan Chemical Substance Control Law
167	PFOA Related Compounds	CAS RN list *12	P	P	Intentional use prohibited (Unintentional use is also prohibited when greater than 1000 ppb in one or a combination thereof.)	All uses	EU 2019/1021
168	Other PFOA Related Compounds	CAS RN list *13	P	P	Intentional use prohibited (Unintentional use is also prohibited when greater than 1000 ppb in one or a combination thereof.)	All uses	EU 2019/1021
170	PFCAs (C9-C14) and their salts	CAS RN list *14	P	P	Use prohibited when greater than 25 ppb in one or a combination thereof.	All uses	EU 2021/1297
171	PFCAs (C9-C14) related substances	94200-43-8 93776-16-0 94200-42-7 1765-48-6 68155-54-4 68412-68-0	P	P	Use prohibited when greater than 260ppb in one or a combination thereof.	All uses	EU 2021/1297
		CAS RN list *15	P	P	Use prohibited when greater than 1000ppb in one or a combination thereof.	All uses	EU 2021/1297
172	PFOS, Perfluorooctane sulfonates C8F17SO2X (X = OH, Metal salt, halide, amide, and other derivatives including polymers), all members	1763-23-1 45298-90-6 307-35-7 306975-62-2 2991-51-7 2795-39-3 29081-56-9 29457-72-5 56773-42-3	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	EU 2019/1021 POPs Convention Japan Chemical Substance Control Law
174	PFHxS and its salts	355-46-4 68259-08-5 3871-99-6	D	D/P	Use prohibited when greater than 25ppb by weight (0.000025wt%)	All uses	POPs Convention
175	PFHxS related substances	CAS RN list *16	D	D/P	Use prohibited when greater than 260ppb in one or a combination thereof. (0.000026wt%)	All uses	POPs Convention
180	Phenol, 2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)- (UV 320)	3846-71-7	P	P	Intentional use prohibited (unintentional use also prohibited)	All uses	Japan Chemical Substance Control Law
192	Phenol, 2,4,6-tris(1,1-dimethylethyl)-	732-26-3	D/P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	Japan Chemical Substance Control Law
203	Phthalates, selected	85-68-7 117-81-7 84-74-2 84-69-5	D/P	P	Use prohibited when greater than 0.1% by weight (total for one of four substances or total for multiple substances)	Use prohibited (P) in both mass-produced products and spare parts.  [Four wheel vehicle products] Use prohibited (P) in both mass-produced products and spare parts. However, this does not apply to older model products and spare parts for vehicles whose mass production ends before January 7, 2024.	EU-R 1907/2006 Annex XVII
206	Polybrominated biphenyls (PBB), all members	36355-01-8	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	POPs Convention Japan Chemical Substance Control Law
		CAS RN list *17	P	P	• Intentional use prohibited • Unintentional use prohibited when greater than 0.1% by weight	All uses	EU-R 1907/2006 Annex XVII

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
207	Polybrominated diphenyl ethers (PBDE), all members	101-55-3 2050-47-7 49690-94-0 32536-52-0 117964-21-3 63936-56-1	P	P	<ul style="list-style-type: none"> <li>Intentional use prohibited</li> <li>Unintentional use prohibited when greater than 0.1% by weight</li> </ul>	All uses	china ELV
		5436-43-1 60348-60-9 68631-49-2 207122-15-4 446255-22-7 207122-16-5 109945-70-2 1201677-32-8 145538-74-5 116995-33-6	P	P	(1) Intentional use prohibited <ul style="list-style-type: none"> <li>Unintentional use prohibited when greater than 0.05% by weight (total of all substances)</li> </ul> (2) Intentional use prohibited <ul style="list-style-type: none"> <li>Unintentional use prohibited when greater than 0.001% by weight</li> </ul>	(1) All uses (total when in mixtures/molded products)  (2) All uses (alone when in homogeneous material)	EU-R 1907/2006 Annex XVII POPs Convention
		1163-19-5	D/P	D/P			
		32534-81-9 36483-60-0 68928-80-3 40088-47-9	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	Japan Chemical Substance Control Law
209	Polychlorinated biphenyls ( PCB ), all members	CAS RN list * 18	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses (However, it can be used only when BAT application for PCB, which is a by-product of the parts of equipment destined for Japan, is applied to the three ministries and approved.)	EU-R 1907/2006 Annex XVII POPs Convention Japan Chemical Substance Control Law
210	Polychlorinated naphthalenes, all members	70776-03-3 1321-65-9 1321-64-8	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	Japan Chemical Substance Control Law
212	Polycyclic aromatic hydrocarbons (PAH; PCAH), selected	56-55-3 205-99-2 50-32-8 192-97-2 205-82-3 207-08-9 218-01-9 53-70-3	D/P	D/P	Use prohibited <ul style="list-style-type: none"> <li>Benzo[a]pyrene alone: When greater than 1 ppm</li> <li>Total PAH: When greater than 10 ppm</li> </ul>	Extender oils for tire manufacturing	EU-R 1907/2006 Annex XVII
					Use prohibited when greater than 0.0001% by weight	Rubbers, plastics, or coatings used in repeated and direct contact with skin, either for long or short periods, and non-clothing fiber products used contact with skin, etc.	
262	Triorganotin compounds, all members	CAS RN list * 19	P	P	Intentional use prohibited	All uses	EU-R 1907/2006 Annex XVII
		56-35-9	P	P	Use prohibited when greater than 0% by weight (unintentional use also prohibited)	All uses	Japan Chemical Substance Control Law

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679-86-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	European F-Gas Regulations
-	4-Chloroaniline	106-47-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Tribromo(tribromophenoxy)benzene	31153-30-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Tribromo(tribromophenoxy)benzene	124-72-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	Bromotrifluoropropane	421-46-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	1,1-dibromo-1,2,2-trifluoropropane	70192-83-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	2-Bromo-1,1,1,3,3,3-hexafluoropropane	2252-79-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	Tribromodifluoropropane	70192-80-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	Dibromopentafluoropropane	431-78-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	Tetrachlorodifluoroethane	28605-74-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	1,1,1,2,2,3-Hexachloro-3,3-difluoropropane	661-96-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	1,1,1,2,2-Pentachloro-3,3,3-trifluoropropane	1652-89-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	The Ozone Layer Protection Law
-	Bis(2-methoxyethyl) ether	111-96-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	1,2-Dichloroethane	107-06-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Aniline-formaldehyde polymer	25214-70-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH-SVHC
-	N,N'-Ditolyl-p-phenylenediamine	27417-40-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	1,4-Benzenediamine, N-(dimethylphenyl)-N'-(methylphenyl)- (9CI)	70290-05-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	1,4-Benzenediamine, N,N'-bis(dimethylphenyl)- (9CI)	28726-30-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Sodium peroxometaborate	7632-04-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4,4'-Methylenebis[2-chloroaniline]	101-14-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane	50-29-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Chlordecone	143-50-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Aldrin	309-00-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Benzenethiol, 2,3,4,5,6-pentachloro-	133-49-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	TSCA
-	4,4'-Oxydianiline	101-80-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Asbestos, Crocidolite	132207-33-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	独自管理物質
-	1-Butanamine, N,N-dibutyl	102-82-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	独自管理物質
-	Phenylmercury octanoate	13864-38-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	Formic acid	64-18-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Benzyl-alcohol	100-51-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Ethanol	64-17-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Furfuryl-alcohol	98-00-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	US California Prop 65
-	Aldrin	309-00-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Cyclododecane	294-62-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH-SVHC
-	Cyclohexane	110-82-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4,4'-Thiodianiline	139-65-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4-Chloraniline	106-47-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4-Chloro-o-toluidine	95-69-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4-Methoxy-m-phenylenediamine	615-05-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	5-Nitro-o-toluidine	99-55-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	[1,1'-Biphenyl]-2,4,4'-triamine	2835-69-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	Tetrasodium 5-benzamido-3-(5-(4-fluoro-6-(1-sulphonato-2-naphthylamino)-1,3,5-triazin-2-ylamino)-2-sulphonatophenylazo)-4-hydroxynaphthalene-2,7- disulphonate	85665-97-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	N-(4-(1,1,3,3-tetramethylbutyl))phenyl-1-naphthylamine	4572-51-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	2-aminonaphthalene-1-sulphonic acid	81-16-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	3,3'-dimethoxybiphenyl-4,4'-ylenediammonium dichloride	20325-40-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	Acetamide, N-(2-((2-bromo-4,6-dinitrophenyl)azo)-5-(diethylamino)phenyl)-	52697-38-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	German TRGS 614
-	2,4,5-Trimethylaniline	137-17-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Diammonium sulfate	7783-20-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	2,4,5-trimethylaniline hydrochloride	21436-97-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	N,N'-dimethylbenzidine	2810-74-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	Canadian Toxic Substances Regulation
-	Benzyl chloride (alpha-chlorotoluene ; chloromethylbenzene)	100-44-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Titanium dioxide	13463-67-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	1,3-Bis(hydroxymethyl)-5,5-dimethylimidazolidine-2,4-dione	6440-58-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	1,3-Benzodioxole, 5-(2-(2-butoxyethoxy)ethoxy)methyl)-6-propyl-	51-03-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	2-Butanone, peroxide	1338-23-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	3(2H)-Isothiazolone, 2-methyl-, hydrochloride	26172-54-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	4,4-Dimethylloxazolidine	51200-87-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	7a-Ethylidihydro-1H,3H,5H-oxazolo[3,4-c]oxazole	7747-35-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Carbon-dioxide	124-38-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Disilver oxide	20667-12-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Nitrogen	7727-37-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Octanoic-acid	124-07-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Methanamine, N-methyl-, polymer with 2-(chloromethyl)oxirane	25988-97-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Pyrethrins and Pyrethroids	8003-34-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Silanamine, 1,1,1-trimethyl-N-(trimethylsilyl)-, hydrolysis products...	68909-20-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	S-[[6-Chloro-2-oxooxazol[4,5-b]pyridin-3(2H-yl)methyl] O,O-dimethyl...	35575-96-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Kieselgur	61790-53-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Sulphuryl-difluoride	2699-79-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Silica, amorphous	112926-00-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	2,3,5,6-Tetrafluorobenzyl trans-2-(2,2-dichlorovinyl)-3,3-dimethylcy...	118712-89-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	1,1 Dichloroethylene	75-35-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	1,1,2,2 Tetrachloroethane	79-34-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Pentachloroethane	76-01-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Trichloromethane (Chloroform)	67-66-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Tetrachloroethylene	127-18-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	1,4-Dichlorobenzene	106-46-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Chloromethane	74-87-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH PACT
-	Chlorine	7782-50-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	O,p'-DDT(2,2,2,o,p'-pentachloroéthylidène bisbenzène ; o,p'-dichloro-1,1-diphényl-2,2,2-trichloroéthane)	789-02-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	独自管理物質



GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	1,2,4-Trichlorobenzene	120-82-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	1,3,5-Trichlorobenzene	108-70-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH-SVHC
-	1,2,3-Trichlorobenzene	87-61-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH-SVHC
-	Chlordanes	57-74-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Chlordecone	143-50-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Chloromethyl methyl ether (CMME)	107-30-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Canadian Toxic Substances Regulation
-	Dibutyltin S,S'-bis (isooctyl mercaptoacetate)	26636-01-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyloxy)-2-oxoethyl]thio]-4-methyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate	57583-34-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Tin, dichloro[29H,31H-phthalocyaninato(2-)-N29,N30,N31,N32]- (OC-6-12)-	18253-54-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Ugilec 121(p,p'-dichlorodiphenyl ethane); Benzene, 1,1'-ethyldienebis(4-chloro-	3547-04-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Dicofol	115-32-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Dieldrin	60-57-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Dinitrotoluene	25321-14-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1272/2008 CLP
-	Endosulfan	115-29-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Endrin	72-20-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	2-(2-butoxyethoxy)ethanol (DEGBE)	112-34-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	1-Methyl-3-nitro-1-nitrosoguanidine	70-25-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1272/2008 CLP
-	Heptachlor(1,4,5,6,7,8,8a-heptachloro-3a,4,7,7a-tetrahydro-4,7-methanoindene)	76-44-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Cyclohexane, 1,2,3,4,5,6-hexachloro-(1.alpha.,2.alpha.,3.beta.,4.alpha.,5.beta.,6.beta.)-	319-84-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Cyclohexane, 1,2,3,4,5,6-hexachloro-(1.alpha.,2.beta.,3.alpha.,4.alpha.,5.alpha.,6.beta.)-	319-85-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	hexachlorocyclohexane (delta-HCH)	319-86-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	technical 1,2,3,4,5,6-hexachlorocyclohexane (HCH mixed isomers)	608-73-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Hexamethylphosphoric-triamide	680-31-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1272/2008 CLP
-	1-Chloro-1,2-difluoroethylene	359-04-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2009/1005 Montreal Protocol
-	1-Chloro-1-fluoroethylene	2317-91-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2009/1005 Montreal Protocol

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	1-Chloro-2-fluoroethylene	460-16-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2009/1005 Montreal Protocol
-	2-Chloro-1,1-difluoroethylene	359-10-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2009/1005 Montreal Protocol
-	1,1,2,2-Tetrachloro-1-fluoroethane	134237-32-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2009/1005 Montreal Protocol
-	Methanaminium, N-[4-[[4-(dimethylamino)phenyl]phenylmethylene]-2,5-cyclohexadien-1-ylidene]-N-methyl-, chloride	569-64-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Methylenediphenyl diisocyanate (MDI)	26447-40-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2,4'-Methylenediphenyl diisocyanate (MDI)	5873-54-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	4,4'-Methylenediphenyl diisocyanate (MDI)	101-68-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2,2'-Methylenediphenyl diisocyanate (MDI)	2536-05-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Nickel uranium oxide (NiU3O10)	15780-33-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Nickel uranyl tetraacetate, of uranium depleted in uranium-235	71767-12-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	[2,3'-Bis[[2-(2-hydroxyphenyl)methylene]amino]but-2-enedinitrilo(2-)-N2,N3,O2,O3]nickel; C.I. Solvent Brown 53	64696-98-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	(butylamine)[[2,2'-thiobis[4-(1,1,3,3-tetramethylbutyl)phenolato]](2-)-O,O',S]nickel	14516-71-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Nickel, 3-[[4-chlorophenyl]azo]-4-hydroxy-2(1H)-quinolinone complex	61725-51-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-(1-oxo-2-propenyl)-omega-(nonylphenoxy)-	50974-47-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Nonylphenylpolyoxyethylene sulfosuccinate	54612-36-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, branched, phosphates	68412-53-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-(nonylphenoxy)-, branched, ammonium salt	68649-55-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-(sulfoxy)-, sodium salt	9014-90-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-sulfo-omega-(nonylphenoxy)-, ammonium salt	9051-57-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-(nonylphenyl)-omega-hydroxy-, phosphate	51811-79-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Poly(oxy-1,2-ethanediyl), alpha-(2-nonylphenyl)-omega-hydroxy-	51938-25-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Pentachloroanisole	1825-21-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	N,N'-ditolyl-p-phenylenediamine; N,N'-bis(methylphenyl)-1,4-Benzenediamine	27417-40-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law

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			Category	Category	Standard value	Main uses	
-	N,N'-dixylyl-p-phenylenediamine; 1,4-Benzenediamine, N,N'-bis(dimethylphenyl)- (9CI)	28726-30-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	N-toly-N'-xylyl-p-phenylenediamine; 1,4-Benzenediamine, N,N'-(dimethylphenyl)-N'-(methylphenyl)- (9CI)	70290-05-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Ammonium manganese(3+) diphosphate	10101-66-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Ammoniumdihydrogenorthophosphate	7722-76-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Polyphosphoric acids, ammonium salts	68333-79-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	[1,1'-Biphenyl]-ar,ar'-diol, tetrabromo-, polymer with (chloromethyl)oxirane and 4,4'-(1-methylethylidene)bis[phenol]	68758-75-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 552/2009
-	2,2',3,3',5,5',6,6'-Octabromo-4-phenoxy-1,1'-biphenyl	83929-69-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 552/2009
-	4,4',6,6'-Tetrabromo[1,1'-biphenyl]-2,2'-diol	14957-65-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 552/2009
-	hexachlorobiphenyl(2,2',4,4',6,6'-PCB)	33979-03-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Polychlorinated naphthalene; Cyclohexanecarboxylic acid, 4-propyl-, trans- (9CI)	38289-27-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	polychlorinatedtriphenyl(aroclor5442)	12642-23-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Tar acids, coal, crude	65996-85-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Coal tar	122384-78-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Creosote oil	61789-28-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Distillates (coal tar), upper; heavy anthracene oil	65996-91-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Distillates (coal tar), naphthalene oils; naphthalene oil	84650-04-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Creosote oil, acenaphthene fraction; wash oil	90640-84-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	indeno(1,2,3-cd)pyrene	193-39-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	China ELV
-	Acenaphthylene	208-96-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	China GB
-	Acenaphthene	83-32-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	China GB
-	Fluorene	86-73-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	China GB
-	Quinoline	91-22-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Carbon-disulphide	75-15-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1272/2008 CLP
-	t-Dodecanethiol	25103-58-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH PACT
-	tetrabromophthalic anhydride	632-79-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	REACH PACT

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	Toxaphene	8001-35-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Tributylamine	102-82-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Trichlorobenzene all isomers	12002-48-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	1,1,1-Trichloro-2,2-bis(4-chlorophenyl)ethane; 4,4'-DDT	50-29-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	Japan Chemical Substance Control Law
-	Acetic acid, 2,2,2'-[(methylstannylidene)tris(thio)]tris-, trisooctyl ester	54849-38-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Oxirane, 2-methyl-, polymer with oxirane, bis(2-oxiranylmethyl) ether	9081-99-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XIV
-	4,4'-(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[2,4-dihydro-5-methyl-3-phenyl-3H-pyrazol-3-one]	3520-72-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[N-(2-methoxyphenyl)-3-oxobutyramide]	4531-49-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[N-(2-methylphenyl)-3-oxobutyramide]	5468-75-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	2,2'-[(3,3'-dichloro[1,1'-biphenyl]-4,4'-diyl)bis(azo)bis[N-(4-chloro-2,5-dimethoxyphenyl)-3-oxobutyramide]	5567-15-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Nitrofen	1836-75-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Dialifos	10311-84-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Dimethoate	60-51-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Disulfoton	298-04-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Leptophos	21609-90-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Monocrotophos	6923-22-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Methamidophos	10265-92-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Bis(2-chloroethyl)ether	111-44-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Strychnine	57-24-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Antu	86-88-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Aldicarb	116-06-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Isobenzan	297-78-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Chlorobenzilate	510-15-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Chloropicrin	76-06-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Chlordimeform	6164-98-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	Chlordimeform hydrochloride	19750-95-9	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Captafol	2425-06-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Trifluralin	1582-09-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Parathion-methyl	298-00-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Parathion	56-38-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Phosphamidon	13171-21-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Fluoroacetamide	640-19-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Thallium sulfate	7446-18-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	1,2-Dibromoethane	106-93-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	1,2-Dibromo-3- chloropropane	96-12-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	2,4,5-T	93-76-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	alpha.alpha.alpha-Trichlorotoluene	98-07-7	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Thalliumacetate	563-68-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Thalliumnitrate	10102-45-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Paraquat dichloride	1910-42-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Dithallium tris(sulfate)	16222-66-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Chlorpyrifos	2921-88-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	POPs Convention
-	Bromine	7726-95-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Calcium-hypochlorite	7778-54-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Bendiocarb	22781-23-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Chlorine-dioxide	10049-04-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Decanoic-acid	334-48-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Geraniol	106-24-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Hydrogen-cyanide	74-90-8	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Hydrogen-peroxide	7722-84-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Ozone	10028-15-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Cyanamide	420-04-2	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	2-Nonylphenol	136-83-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH

GADSL No	Substance	CAS RN	GADSL control level	Stanley control level	Stanley's criteria		Major related laws, regulations, etc. (Reference)
			Category	Category	Standard value	Main uses	
-	Chromium-oxide	11118-57-3	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH
-	Wood creosote	8021-39-4	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Sulphur dioxide	7446-09-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Peracetic acid	79-21-0	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 528/2012 BPR
-	Dichloro(ethyl)arsine	598-14-1	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Dichloro(phenyl)arsine	696-28-6	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 1907/2006 Annex XVII
-	Methoxychlor	72-43-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	EU-R 2021/1297 Annex XVII
-	6,11-Dioxa-5,12-distannahehexadecane, 8,9-dibromo-5,5,12,12-tetraethyl-7,10-dioxo-, (8R,9S)-rel-	31732-71-5	-	D	When the reported threshold value is greater by 0% by weight	All uses	K-REACH

CAS RN list

※1	12014-29-8	51222-60-7	14402-75-6	7440-43-9	543-90-8	15743-19-8	12006-15-4	2420-98-6	7789-42-6	13464-92-1
	513-78-0	10108-64-2	12185-64-7	100402-53-7	7790-78-5	14312-00-6	542-83-6	14923-81-0	7790-83-2	13832-25-2
	14486-19-2	7790-79-6	17010-21-8	14067-62-0	21041-95-2	7790-81-0	7790-80-9	90604-90-3	1345-09-1	29870-72-2
	13972-68-4	12187-14-3	10022-68-1	10325-94-7	1306-19-0	101356-99-4	102110-30-5	12139-22-9	12014-28-7	16986-83-7
	1306-24-7	101357-00-0	101357-01-1	101357-02-2	101357-03-3	101357-04-4	12214-12-9	71243-75-9	12213-70-6	11112-63-3
	2223-93-0	141-00-4	10124-36-4	31119-53-6	7790-84-3	1306-23-6	13477-23-1	12292-07-8	1306-25-8	12014-14-1
	7790-85-4	16056-72-7	90604-89-0	11129-14-9	12442-27-2	8048-07-5	12139-23-0	4464-23-7	15337-60-7	14239-68-0
	93820-02-1	13701-66-1	13755-33-4	37131-86-5	19262-93-2	15600-62-1	20648-91-3	93686-40-9	14520-70-8	13847-17-1
13477-17-3	13814-62-5	13814-59-0	13477-19-5	102184-95-2	14017-36-8	15851-44-2	15852-14-9	10196-67-5		
※2	67562-39-4	35822-46-9	55673-89-7	70648-26-9	39227-28-6	57117-44-9	57653-85-7	72918-21-9	19408-74-3	57117-41-6
	40321-76-4	60851-34-5	57117-31-4	51207-31-9	1746-01-6	33857-26-0	34465-46-8	39001-02-0	3268-87-9	
※3	61788-76-9	63449-39-8	68920-70-7	97659-46-6	84776-06-7	97553-43-0	18993-26-5	601523-20-0	601523-25-5	221174-07-8
	276673-33-7	219697-10-6	219697-11-7	36312-81-9						
※4	3026-81-1	22535-42-8	13173-04-1	33466-31-8	32011-18-0	17523-06-7	1002-53-5	10584-98-2	17036-31-6	25168-21-2
	25168-22-3	28660-67-5	4253-22-9	59963-28-9	93925-42-9	54581-65-6	53202-61-2	7324-74-5	5587-52-0	51287-83-3
	2781-09-1	29881-72-9	26761-46-6	1067-33-0	5847-54-1	3349-36-8	683-18-1	19704-60-0	77-58-7	1185-81-5
	10192-92-4	1067-55-6	4731-77-5	13323-62-1	13323-63-2	14214-24-5	5847-55-2	75113-37-0	85702-74-5	85391-79-3
	95873-60-2	78-04-6	78-20-6	78-06-8	818-08-6	25168-24-5	15546-12-0	85508-00-5	61947-30-6	15546-11-9
	15719-34-3	15546-16-4	2781-10-4	15666-29-2	163206-28-8	68239-46-3	22673-19-4	32011-19-1	67924-24-7	
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	75372-14-4	453-00-9	1786-38-5	51584-26-0	62135-10-8	62135-11-9	430-87-5	420-89-3	420-98-4	2195-05-3
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※7	812-04-4	354-21-2	354-23-4	1649-08-7	431-06-1	102738-79-4	111512-56-2	127564-82-3	127564-90-3	127564-91-4
	128903-21-9	1330-45-6	134190-49-1	134190-51-5	134237-35-7	134237-36-8	134237-37-9	134237-38-0	134237-39-1	134237-40-4
	134237-41-5	134237-42-6	134237-43-7	134237-44-8	134237-45-9	13474-88-9	136013-79-1	1842-05-3	25167-88-8	25915-78-0
	29470-94-8	29470-95-9	338-75-0	41834-16-6	420-44-0	422-44-6	422-48-0	422-56-0	431-86-7	460-35-5
	460-69-5	460-92-4	507-55-1	61623-04-9	679-85-6	7125-83-9	7125-99-7	7799-56-6	818-99-5	430-57-9
	430-58-0	354-25-6	75-68-3	25497-29-4	75-45-6	593-70-4	63938-10-3	75-43-4	34077-87-7	2366-36-1
	811-95-0	359-28-4	1717-00-6	354-15-4	338-64-7	306-83-2	2837-89-0	55949-44-5	338-65-8	27154-33-2
	134190-53-7	110587-14-9	134190-54-8	28987-04-4	108662-83-5	134190-50-4	26588-23-8	75-88-7	116867-32-4	134190-48-0
	421-04-5	431-07-2	430-53-5	471-43-2	354-11-0	354-14-3				
※8	2252-84-8	431-63-0	811-97-2	359-35-3	430-66-0	75-37-6	624-72-6	25497-28-3	75-10-5	420-46-2
	354-33-6	353-36-6	593-53-3	1814-88-6	460-73-1	406-58-6	138495-42-8	431-89-0	690-39-1	27070-61-7
	27987-06-0	75-46-7								
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	84961-75-1	17549-30-3	62451-77-8	15282-88-9	65229-22-3	12048-28-1	815-84-9	93892-65-0	25510-11-6	68604-05-7
	1520-78-1	1153-06-6	1344-37-2	11119-70-3	116565-74-3	1344-38-3	68411-07-4	62637-99-4	90342-24-8	20403-42-3
	6928-68-3	109707-90-6	16450-50-3	56189-09-4	11116-83-9	12017-86-6	37240-96-3	2117-69-3	2388-00-3	3124-01-4
	3249-61-4	90342-56-6	15773-55-4	68131-60-2	93165-26-5	91031-62-8	84776-54-5	125328-49-6	91002-20-9	91031-61-7
	85049-42-9	68409-79-0	84776-53-4	84776-36-3	91031-60-6	81412-57-9	91697-36-8	92044-89-8	61788-53-2	61788-54-3
	94349-78-7	70514-05-5	7056-83-9	68989-89-9	22904-40-1	12029-23-1	94006-20-9	90388-09-3	90388-10-6	301-08-6
	23621-79-6	71753-04-3	12023-90-4	90431-14-4	91671-82-8	27253-41-4	90431-21-3	64504-12-7	90431-26-8	91671-83-9
	91671-84-0	15306-30-6	69029-71-6	7439-92-1	6080-56-4	35029-96-0	546-67-8	65127-78-8	20936-32-7	16996-40-0
	93839-98-6	60580-60-1	15347-57-6	301-04-2	14466-01-4	69011-59-2	69011-60-5	13510-89-9	12266-38-5	3687-31-8











※16	111393-39-6	1270179-82-2	1270179-93-5	127133-66-8	129813-71-4	141607-32-1	1427176-17-7	1427176-20-2	147029-28-5	148240-80-6
	148684-79-1	149652-30-2	160305-97-5	160336-17-4	160901-25-7	160901-26-8	161074-58-4	1645842-67-6	1645850-46-9	1645852-09-0
	1645852-10-3	1648534-82-0	1648539-69-8	1648540-20-8	171561-95-8	178094-71-8	178535-22-3	179005-06-2	179005-07-3	1893-52-3
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	306975-84-8	306975-85-9	306976-25-0	306976-55-6	306977-10-6	306977-58-2	306978-04-1	306978-65-4	306979-40-8	306980-27-8
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	67906-71-2	67939-61-1	67939-92-8	67969-65-7	680187-85-3	680187-86-4	68081-83-4	68227-87-2	68227-94-1	68227-96-3
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	68299-39-8	68329-56-6	68391-09-3	68555-70-4	68555-75-9	68555-90-8	68555-91-9	68555-92-0	68568-77-4	68586-13-0
	68586-14-1	68608-13-9	68608-14-0	68649-26-3	68797-76-2	68815-72-5	68867-60-7	68867-62-9	68877-32-7	68891-98-5
	68909-15-9	68957-32-4	68957-53-9	68957-58-4	68957-61-9	70225-16-0	70248-52-1	70776-36-2	70900-36-6	70900-40-2
	71487-20-2	73772-32-4	73772-33-5	73772-34-6	76848-59-4	76848-68-5	80621-17-6	81190-38-7	82382-12-5	85665-64-1
	85665-66-3	86525-30-6	86525-43-1	86525-48-6	86525-51-1	86525-52-2	89863-48-9	89863-49-0	89863-50-3	89863-55-8
89863-56-9	89863-63-8	89863-64-9	91081-99-1	93416-31-0	93572-72-6	944578-05-6				

※17	73141-48-7	77910-04-4	88700-05-4	81397-99-1	97038-97-6	66115-57-9	59080-40-9	67888-96-4	59080-39-6	80274-92-6
	60044-24-8	97063-75-7	97038-95-4	59080-37-4	60044-25-9	59080-34-1	97038-96-5	13029-09-9	96551-70-1	74114-77-5
	84303-45-7	38421-62-4	59080-38-5	59080-35-2	49602-90-6	40088-45-7	64258-02-2	59080-36-3	59080-33-0	64258-03-3
	49602-91-7	53592-10-2	57422-77-2	59080-32-9	77102-82-0	97038-98-7	16400-50-3	16400-51-4	59589-92-3	57186-90-0
	60108-72-7	92-86-4	27479-65-8	2052-07-5	2113-57-7	92-66-0	13654-09-6	59536-65-1	67774-32-7	35194-78-6
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※18	16606-02-3	2437-79-8	52663-72-6	35065-27-1	32598-13-3	32774-16-6	12674-11-2	11104-28-2	11141-16-5	53469-21-9
	12672-29-6	11097-69-1	11096-82-5	28655-71-2	53742-07-7	25429-29-2	1336-36-3	31472-83-0		

※19	3644-37-9	7094-94-2	26239-64-5	752-58-9	4027-18-3	25711-26-6	13356-08-6	14275-57-1	4782-29-0	6454-35-9
	1066-44-0	3644-32-4	900-95-8	2767-54-6	379-52-2	1983-10-4	3090-36-6	28801-69-6	3090-35-5	56573-85-4
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	27147-18-8	4027-17-2	2179-92-2	20369-63-5	33550-22-0	1067-97-6	7342-47-4	73927-91-0	73927-97-6	53404-82-3
	681-99-2	24124-25-2	2155-70-6	13302-06-2	1067-52-3	53466-85-6	36631-23-9	85409-17-2	4027-14-9	73927-93-2
	73940-88-2	6517-25-5	69226-47-7	41083-11-8	1907-13-7	994-31-0	994-32-1	2943-86-4	1529-30-2	1118-14-5
	1118-03-2	1066-45-1	56-24-6	811-73-4	63869-87-4	4638-25-9	4342-30-7	47672-31-1	639-58-7	1803-12-9
892-20-6	76-87-9	894-09-7	3267-78-5	2767-61-5	2279-76-7	7342-45-2	73927-92-1	57808-37-4	4154-35-2	

## Annex 2. Exemptions from Specially Controlled Substances (Automobile Products)

- These exemptions shall be based on the standards stipulated by us based on the exemptions in the ELV Directive Annex.
- Entries with no time limit stated, there is no expiration date at the moment

N o	Applications exempted from the restriction	Scope and expiry date of the exemption
<b>■ Lead and lead compounds</b>		
Lead as an alloying element		
1a	Steel for machining purposes and batch hotdip galvanised steel components containing upto 0,35 % lead by weight	
1b	Continuously galvanised steel sheetcontaining up to 0,35 % lead by weight	Vehicles and spare parts put on the market before 1 January 2016
2(a)	Aluminium for machining purposes with a leadcontent up to 2 % by weight	As spare parts for vehicles put on the market before 1 July 2005
2(b)	Aluminium with a lead content up to 1,5 % byweight	As spare parts for vehicles put on the market before 1 July 2008
2(c)( i )	Aluminium alloys for machining purposes with a lead content up to 0,4 % by weight	Spare parts for vehicles launched by Jan. 1, 2028
2(c)( ii )	Aluminium alloys not included in entry 2(c)(i) with a lead content up to 0,4 % by weight(1a)	To be revised in 2024
3	Copper alloy containing up to 4 % lead byweight	To be revised in 2025
4(a)	Bearing shells and bushes	As spare parts for vehicles put on the market before 1 July 2008
4(b)	Bearing shells and bushes used in engines, transmissions, and air conditioner compressors	As spare parts for vehicles put on the market before 1 July 2011
Lead and lead compounds in components		
5(a)	Lead in batteries in high-pressure systems used for propulsion applications only on M1 and N1 vehicles Systems with voltages greater than 75 VDC as defined in Directive 2006/95/EC	Vehicles and spare parts put on the market before 1 January 2019
5(b)(i)	(1) 12 V batteries (2) Lead in 24 V batteries for special-purpose vehicles as defined in Article 3 of the EU 2018/858, regulation on the approval and market surveillance of motor vehicles	To be revised in 2025
5(b)(ii)	Lead in batteries not included in 5(a) or 5(b)(i)	Vehicles launched before Jan. 1, 2024 and their spare parts
6	Vibration damper	Vehicles and spare parts put on the market before 1 January 2016
7(a)	Elastomer vulcanizers and stabilizers used in brake hoses, fuel hoses, ventilation hoses, and elastomers and metal used in chassis structures and engine mounts	As spare parts for vehicles put on the market before 1 July 2005
7(b)	Vulcanising agents and stabilisers forelastomers in brake hoses, fuel hoses, airventilation hoses, elastomer/metal parts inthe chassis applications, and enginemountings containing up to 0,5 % lead byweight	As spare parts for vehicles put on the market before 1 July 2006
7(c)	Adhesives for elastomers used in powertrain applications, including less than 0.5% lead by weight	As spare parts for vehicles put on the market before 1 July 2009

N o	Applications exempted from the restriction	Scope and expiry date of the exemption
8(a)	Lead in solder used to attach electrical and electronic components to electronic circuit boards, and lead used in surface treatments for terminals, pins, and electronic boards for parts other than electrolytic aluminum capacitors	Vehicles and spare parts put on the market before 1 January 2016
8(b)	Lead in solder used in electrical equipment other than solder used on electronic circuit boards or glass	Vehicles and spare parts put on the market before 1 January 2011
8(c)	Lead in surface treatments for the terminals of electrolytic aluminum capacitors	Vehicles and spare parts put on the market before 1 January 2013
8(d)	Lead in solder used on the glass of mass air flow sensors	Vehicles and spare parts put on the market before 1 January 2015
8(e)	<b>Lead in refractory solder (85% or higher alloy lead content)</b>	This exemption shall be reviewed in 2024.
8(f)(a)	Lead in compliant pin connector systems	Vehicles and spare parts put on the market before 1 January 2017
8(f)(b)	Lead in compliant pin connector systems other than the mating area of vehicle harness connectors	<b>Vehicles launched before Jan. 1, 2024 and their spare parts</b>
8(g)(i)	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	<b>Vehicles launched before Jan. 1, 2022 and their spare parts</b>
8(g)(ii)	Lead in solders to complete a viable electrical connection between the semiconductor die and the carrier within integrated circuit flip chip packages where one of the below criteria applies: a) A semiconductor technology node of 90 nm or larger b) A single die of 300 mm <sup>2</sup> or larger in any semiconductor technology node c) Stacked die packages with dies of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger	<b>Vehicles launched after Oct. 1, 2022 and their spare parts</b>
8(h)	Lead in solder for used for connecting heat spreaders to heat sinks in power semiconductor assemblies with a projected area for the chip size of at least 1 cm <sup>2</sup> or more and a silicon chip with a nominal current density of 1A/mm <sup>2</sup> or more	Vehicles and spare parts put on the market before 1 January 2016
8(i)	Lead in solder used for electrical applications on glass other than solder used on laminated glass	Vehicles and spare parts put on the market before 1 January 2016
8(j)	Lead in solder used on laminated glass	Vehicles and spare parts put on the market before 1 January 2020
8(k)	Soldering of heating applications with 0,5A or more of heat current per related solder joint to single panes of laminated glazings not exceeding wall thickness of 2,1 mm. This exemption does not cover soldering to contacts embedded in the intermediate polymer	<b>Vehicles launched before Jan. 1, 2024 and their spare parts</b>
9	Valve seats	Spare parts for engine models developed before 1 July 2003

N o	Applications exempted from the restriction	Scope and expiry date of the exemption
10(a)	Electrical and electronic components which contain lead in a glass or ceramic, in a glass or ceramic matrix compound, in a glass-ceramic material, or in a glass-ceramic matrix compound. This exemption does not cover the use of lead in: . glass in bulbs and glaze of spark plugs, . dielectric ceramic materials of components listed under 10(b), 10(c) and 10(d)	
10(b)	Lead in PZT based dielectric ceramic materials of capacitors being part of integrated circuits or discrete semiconductors	
10(c)	Lead in dielectric ceramic materials used in capacitors with rated voltages at or below 125 VAC or 250 VDC	Vehicles and spare parts put on the market before 1 January 2016
10(d)	Lead in dielectric ceramic materials used in capacitors that correct temperature-related errors for sensors in ultrasonic sonar applications	Vehicles and spare parts put on the market before 1 January 2017
11	Combustion/ignition devices	Vehicles and spare parts put on the market before 1 January 2006
12	Lead in thermoelectric element materials for automobile control applications that reduce CO <sub>2</sub> emissions by recovering exhaust heat	Vehicles and spare parts put on the market before 1 January 2019

■ Hexavalent chromium and hexavalent chromium compounds		
13(a)	Anti-corrosion coatings	As spare parts for vehicles put on the market before 1 July 2007
13(b)	Anti-corrosion coatings used on nuts and bolts for chassis assembly	As spare parts for vehicles put on the market before 1 July 2008
14	Hexavalent chromium for corrosion protection in the carbon steel cooling systems of absorption refrigerators and comprising 0.75% of the cooling solution by weight (1) Those designed for complete or partial operation with an electric heater, with an average power input of less than 75W under certain operating conditions (2) Those designed for complete or partial operation with an electric heater, with an average power input of 75 W or more under certain operating conditions (3) Those operate completely with non-electric heaters	(1) Vehicles launched before Jan. 1, 2020 and their spare parts (2) Vehicles launched before Jan. 1, 2026 and their spare parts
■ Mercury and mercury compounds		
15(a)	Headlight discharge lamps	Vehicles and spare parts put on the market before 1 July 2012
15(b)	Fluorescent tubes used in instrument panel displays	Vehicles and spare parts put on the market before 1 July 2012
■ Cadmium and cadmium compounds		
16	Electric vehicle batteries	As spare parts for vehicles put on the market before 31 December 2008

## Annex 3. Specially Controlled Substances (Electric / Electronic Products)

### 1. Prohibited

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
1	Cadmium/cadmium compounds	• Annex XVII of REACH Regulation • RoHS Directive	All except as noted below	0.01% by weight(100 ppm)	Pigment, anti-corrosion surface treatment,optical glass, stabilizer,plating, fluorescent,electrode,solder,electric contact,contact point,zinc plating	
		• EU Battery Directive	Batteries and storage batteries	0.002% by weight (20 ppm)	Batteries and storage batteries	
		Representative examples of relevant substance(1)				
		Substance name				
		Cadmium				
		Cadmium oxide				
		Cadmium sulfide				
		Cadmium chloride				
		Cadmium sulfate				
		Cadmium fluoride				
Other cadmium compounds						
2	Chromium VI compounds	• RoHS Directive	All except as noted below	0.1% by weight(1,000 ppm)	Pigment, paint, ink,catalyst, plating,anticorrosion surface treatment,dye	
		• Annex XVII of REACH Regulation	Leather-molded products or leather parts that contact the skin	0.0003 wt% (3ppm) of total dry weight of leather	Tanning agent for leather products	
		Representative examples of relevant substance(1)				
		Substance name				
		Chromium (VI) oxide				
		Barium chromate				
		Calcium chromate				
		Lead (II) chromate				
		Lead chromate molybdate sulphate red				
		Lead sulfochromate yellow				
		Sodium chromate				
		Sodium dichromate				
		Strontium chromate				
		Potassium dichromate				
		Potassium chromate				
		Zinc chromate				
		Pentazine chromate octahydroxide				
		Potassium hydroxyoctaoxidizincatedichromate				
		Ammonium dichromate				
		Hexavalent chromium				
Other chromium VI compounds						
3	Lead/lead compounds	• RoHS Directive	All except as noted below	0.1% by weight(1,000 ppm)	Rubber hardener,pigment, paint,lubricant,plastic stabilizer,freemachining alloy,freecutting steels,optical materials,X-ray shielding in CRT glass,solder materials, curing agent,vulcanizing agent,ferroelectrics,plating,metal alloy	
		• Annex XVII of REACH Regulation	Articles or accessible parts thereof which may be placed in the mouth by children	0.05% by weight (500 ppm) of lead in articles or accessible parts thereof		
				0.05 $\mu\text{g}/\text{cm}^2/\text{h}$ (equivalent to 0.05 $\mu\text{g}/\text{g}/\text{h}$ ) in the rate of lead release from an article or any accessible part thereof		



No.	Substance/Category	Substance name	CAS RN			
3	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 hydrocarbonate	1319-46-6			
		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			
		Lead sulfochromate yellow	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			
		Lead oxide	1335-25-7			
Lead fluoride (II)	7783-46-2					
Other lead compounds	—					
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
4	Mercury/mercury compounds	• Annex XVII of REACH Regulation • RoHS Directive	All except as noted below	• Intentionally added (2) • 0.1% by weight (1,000 ppm)	Fluorescent bulb, contact point material, pigment, anti-corrosion, switches, antibacterial treatment	
		• EU Battery Directive	Batteries and storage batteries	0.0005% by weight (5 ppm)	Batteries, storage batteries	
			Coin batteries	2% by weight	Coin batteries	
		Representative examples of relevant substance(1)				
			Substance name	CAS RN		
			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		
	Mercuric (II) oxide	21908-53-2				
	Mercuric sulfide	1344-48-5				
	Other mercury compounds	—				
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
5	Polybrominated biphenyls (PBBs)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. • Annex XVII of REACH Regulation • Annex I of Stockholm convention on POPs	All	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Flame retardant	
		Representative examples of relevant substance(1)				
			Substance name	CAS RN		
			Polybrominated Biphenyls	59536-65-1		
			Dibromobiphenyl	92-86-4		
			2-Bromobiphenyl	2052-07-5		
			3-Bromobiphenyl	2113-57-7		
			4-Bromobiphenyl	92-66-0		
			Tribromobiphenyl	59080-34-1		
			Tetrabromobiphenyl	40088-45-7		
	Pentabromobiphenyl	56307-79-0				
	Hexabromobiphenyl	59080-40-9				
	Hexabromo-1,1-biphenyl	36355-01-8				
	Firemaster FF-1	67774-32-7				

No.	Substance/Category	Substance name			CAS RN	
5	Polybrominated biphenyls (PBBs)	Heptabromobiphenyl			35194-78-6	
		Octabromobiphenyl			61288-13-9	
		Nonabromobiphenyl			27753-52-2	
		Decabromobiphenyl			13654-09-6	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
6	Polybrominated diphenyl ethers (PBDEs)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	Electric and electronic products (including accessories)	• Intentionally added(2) • 0.1% by weight of homogeneous material (1,000 ppm)	Flame retardant	
		• Annex I of Stockholm convention on POPs	All except those listed above	• Intentionally added(2) • 0.05% by weight in total with PBDEs in molded parts (500 ppm)		
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		Bromodiphenyl ether				101-55-3
		Dibromodiphenyl ether				2050-47-7
		Tribromodiphenyl ether				49690-94-0
		Tetrabromodiphenyl ether				40088-47-9
		Pentabromodiphenyl ether				32534-81-9
		Hexabromodiphenyl ether				36483-60-0
		Heptabromodiphenyl ether				68928-80-3
		Octabromodiphenyl ether				32536-52-0
		Nonabromodiphenyl ether				63936-56-1
		Decabromodiphenyl ether				1163-19-5
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
7	Polychlorinated biphenyls (PCBs) and specific substitutes	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added(2)	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, flame retardants, dielectric sealants	
		• Annex XVII of REACH Regulation				
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		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		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
8	Polychlorinated terphenyls (PCTs)	• Annex XVII of REACH Regulation	All	• 0.005% by weight (50 ppm) in material	Insulation oil, lubricant oil, electrical insulation medium, solvent, electrolytic solution, plasticizers, flame retardants, coatings for electrical wire and cable, dielectric sealants	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
Polychlorinated Terphenyls (all isomers and congeners)				61788-33-8		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
9	Polychlorinated naphthalenes (more than 1 chlorine atoms)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added(2)	Lubricant, paint, stabilizer (electric characteristic, flame-resistant, water resistant) insulator, flame retardant	
		• Annex I of Stockholm convention on POPs				
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
Polychlorinated naphthalenes				70776-03-3		
Other polychlorinated naphthalenes				—		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
10	Shortchain chlorinated paraffins (C10-13) (SCCPs)	• Annex I of Stockholm convention on POPs	All	• 0.1 % by weight (1,000 ppm) └ Intentionally added(2)	Plasticizer for PVC, flame retardant	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		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 Chlorinated Paraffins				—		

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
11	Tri-substituted organostannic compounds	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. • Annex XVII of REACH Regulation	All	•0.1% by weight(1,000 ppm)of tin in a material •Intentionally added(2)	Stabilizer,antioxidant,antibacterial and antifungal agents,antifoulant,antiseptic,paint, pigment,antistaining	
		Representative examples of relevant substance(1)				
		Substance name		CAS RN		
		Triphenyltin-N, N-dimethylthiocarbamate		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-1,4adimethyl-1-phenanthrenecarboxylatemix		26239-64-5				
Other tri-substituted organostannic compounds		—				
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
12	Tributyl tin oxide (TBTO)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	•Intentionally added(2) • As a tin element 0.1 % by weight (1,000 ppm)	Antiseptic, antifungal agent,paint, pigment, antistaining,refrigerant, foaming agent,extinguishant, solvent cleaner	
		Substance name		CAS RN		
		Tributyl tin oxide (TBTO)		56-35-9		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
13	Dibutyltin (DBT) compounds	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm) of tin in a material	Stabilizer for PVC,curing catalyst for silicone resin and urethane resin	
		Representative examples of relevant substance(1)				
		Substance name		CAS RN		
		Dibutyltin oxide		818-08-6		
		Dibutyltin diacetate		1067-33-0		
		Dibutyltin dilaurate		77-58-7		
		Dibutyltin maleate		78-04-6		
Other dibutyltin compounds		—				
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
14	Dioctyltin (DOT) compounds	• Annex XVII of REACH Regulation	(a) textile and leather articles intended to come into contact with the skin, (b) childcarearticles (c)wocomponent room temperature vulcanisation moulding kits (RTV-2 moulding kits)	•0.1% by weight (1,000 ppm) of tin in a material	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	
		Representative examples of relevant substance(1)				
		Substance name		CAS RN		
		Dioctyl Tin Oxide		870-08-6		
		Dioctyltin dilaurate		3648-18-8		
Other Dioctyltin compounds		—				

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use
15	Ozone depleting substances	*Montreal Protocol	All	*Intentionally added(2)	Refrigerant,foaming agent,extinguishant,solvent cleaner
Representative examples of relevant substance(1)					
Substance name		CAS RN			
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 (CFC-112)		76-12-0			
1,1,2,2-Tetrachloro-1,2-difluoroethane (CFC-112)		28605-74-5			
1,1,1,2-Tetrachloro-2,2-difluoroethane (CFC-112a)		76-11-9			
Trichlorotrifluoroethane (CFC-113)		76-13-1			
1,1,2-Trichloro-1,2,2 trifluoroethane (CFC-113)		26523-64-8			
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			
		135401-87-5			
1,1,1,2,3,3,3-Heptachloro-2-fluoropropane (CFC-211ba)		422-81-1			
Hexachlorodifluoropropane (CFC-212)		3182-26-1			
Pentachlorotrifluoropropane (CFC-213)		2354-06-5			
		134237-31-3			
Tetrachlorotetrafluoropropane (CFC-214)		29255-31-0			
1,2,2,3-Tetrachloro-1,1,3,3-tetrafluoropropane (CFC-214aa)		677-68-9			
1,1,1,3-Tetrachloro-2,2,3,3-tetrafluoropropane (CFC-214cb)		2268-46-4			
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)		74-87-3			
Dibromofluoromethane (HBFC-21 B2)		1868-53-7			
Bromodifluoromethane (HBFC-22 B1)		1511-62-2			
Bromofluoromethane (HBFC-31 B1)		373-52-4			
Tetrabromofluoroethane (HBFC-121 B4)		306-80-9			
Tribromodifluoroethane (HBFC-122 B3)		—			
Dibromotrifluoroethane (HBFC-123 B2)		354-04-1			
Bromotetrafluoroethane (HBFC-124 B1)		124-72-1			
Tribromofluoroethane (HBFC-131 B3)		—			
Dibromodifluoroethane (HBFC-132 B2)		75-82-1			
Bromotrifluoroethane (HBFC-133 B1)		421-06-7			
Dibromofluoroethane (HBFC-141 B2)		358-97-4			
Bromodifluoroethane (HBFC-142 B1)		420-47-3			
Bromofluoroethane (HBFC-151 B1)		762-49-2			
Hexabromofluoropropane (HBFC-221 B6)		—			
Pentabromodifluoropropane (HBFC-222 B5)		—			
Tetrabromotrifluoropropane (HBFC-223 B4)		—			
Tribromotetrafluoropropane (HBFC-224 B3)		—			
Dibromopentafluoropropane (HBFC-225 B2)		431-78-7			
Bromohexafluoropropane (HBFC-226 B1)		2252-78-0			
Pentabromofluoropropane (HBFC-231 B5)		—			

No.	Substance/Category	Substance name	CAS RN
15	Ozone depleting substances	Tetrabromodifluoropropane (HBFC-232 B4)	—
		Tribromotrifluoropropane (HBFC-233 B3)	—
		Dibromotetrafluoropropane (HBFC-234 B2)	—
		Bromopentafluoropropane (HBFC-235 B1)	460-88-8
		Tetrabromofluoropropane (HBFC-241 B4)	—
		Tribromodifluoropropane (HBFC-242 B3)	70192-80-2
		Dibromotrifluoropropane (HBFC-243 B2)	431-21-0
		Bromotetrafluoropropane (HBFC-244 B1)	679-84-5
		Tribromofluoropropane (HBFC-251 B3)	75372-14-4
		Dibromodifluoropropane (HBFC-252 B2)	460-25-3
		Bromotrifluoropropane (HBFC-253 B1)	421-46-5
		Dibromofluoropropane (HBFC-261 B2)	51584-26-0
		Bromodifluoropropane (HBFC-262 B1)	—
		Bromofluoropropane (HBFC-271 B1)	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
		1,1-Dichloro-1,2,2-trifluoroethane (HCFC-123b)	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)	<del>134237-34-6</del>
		1,1,2-Trichloro-1-fluoroethane (HCFC131a)	359-28-4
		1,1,1-Trichloro-2-fluoroethane (HCFC-131b)	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
		1-Chloro-1,2,2-trifluoroethane (HCFC-133)	431-07-2
		2-Chloro-1,1,1-trifluoroethane (HCFC-133a)	1330-45-6
		1-Chloro-1,1,2-trifluoroethane (HCFC-133b)	75-88-7
		1-Chloro-1,1,2-trifluoroethane (HCFC-133b)	421-04-5
		Dichlorofluoroethane(HCFC-141)	<del>25167-88-8</del>
		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)	29470-94-8		
1,1,1,2,2,3-Hexachloro-3-fluoropropane (HCFC-221ab)	422-26-4		
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		

No.	Substance/Category	Substance name	CAS RN
15	Ozone depleting substances	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-1,1,2,2,3-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-225ce)	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-hexafluoro-propane (HCFC-226da)	431-87-8
		Pentachlorofluoropropane (HCFC-231)	134190-48-0
		1,1,1,2,3-pentachloro-2-fluoro-propane (HCFC-231bb)	421-94-3
		Tetrachlorodifluoropropane (HCFC-232)	134237-39-1
		1,1,1,3-Tetrachloro-3,3-difluoropropane (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
		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)	421-02-3		
Chlorofluoropropane (HCFC-271)	134190-54-8		
2-Chloro-2-fluoropropane (HCFC-271ba)	420-44-0		
1-Chloro-1-fluoropropane (HCFC-271fb)	430-55-7		

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
16	Asbestos	• Annex XVII of REACH Regulation	All	• Intentionally added(2) • 0.1 % by weight (1,000 ppm)	Insulator,filler,pigment, paint,talc	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		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		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
17	Azocolourants and azodyes which form certain aromatic amines(3)	• Annex XVII of REACH Regulation	Textiles and leather	• 0.003% by weight (30 ppm)(3) of the finished textile/leather product	Pigment,dyes,colorants	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		Biphenyl-4-ylamine				92-67-1
		Benzidine				92-87-5
		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		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
18	Perfluorooctane sulfonate (PFOS)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All except the following exempted uses	• Intentionally added(2) • 0.1 % by weight (1,000 ppm) • 1 µg/m2 (Woven fabrics and other coated materials)	Photoresist, anti-reflection coating agent, film, paper,photos coatings, plating mist inhibitor, lubricating oil used	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		Perfluorooctane Sulfonates (PFOS)				1763-23-1
		perfluorooctane sulfonate anion				45298-90-6
		perfluoro-1-octanesulfonyl fluoride				307-35-7
		2-propenoic acid, 2-methyl-, dodecyl ester, polymers with 2-[methyl(perfluoro-C4-8-alkyl)- sulfonylamino]ethyl acrylate and vinylidene chloride				306975-62-2
		glycine, N-ethyl-N-[(heptadecafluorooctyl)sulfonyl]-, potassium salt				2991-51-7
		perfluorooctane sulfonate potassium perfluorooctane-1-sulfonate				2795-39-3
		perfluorooctane sulfonate ammonium salt				29081-56-9
		perfluorooctane sulfonate lithium salt				29457-72-5
		tetraethylammoniumheptadecafluorooctansulfonate				56773-42-3
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
19	Dimethyl fumarate (DMF)	• Annex XVII of REACH Regulation	All	• 0.00001%by weight (0.1 ppm)	Biocide, mold treatment of electronic leather seats, including recliners, massage chairs	
		Substance name				CAS RN
Dimethyl fumarate (DMF)				624-49-7		

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use					
20	Phenol, 2-(2H-benzotriazol-2-yl)- 4,6-bis (1,1-dimethylethyl)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added(2) • 0.1 % by weight (1,000 ppm)	Adhesives, paints, printing inks, plastics, inked ribbons, putty, caulking or sealing fillers					
						Substance name	CAS RN			
						Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)	3846-71-7			
21	Hexabromocyclododecane (HBCDD(4)) and all major diastereoisomers	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added(2) • 0.01 % by weight (100 ppm)	Flame retardant mainly used for expanded polystyrene and some types of fiber					
						Representative examples of relevant substance(1)				
						Substance name	CAS RN			
						Hexabromocyclododecane (HBCD)	25637-99-4 3194-55-6			
						$\alpha$ -hexabromocyclododecane	134237-50-6			
						$\beta$ -hexabromocyclododecane	134237-51-7			
						$\gamma$ -hexabromocyclododecane	134237-52-8			
						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,9R,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									
22	Polycyclic-aromatic hydrocarbons (PAH)	• Annex XVII of REACH Regulation	Rubber or plastic components that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity	• 0.0001% by weight (1 ppm)	Rubber, plasticizer, colored pigment for plastic					
			Rubber or plastic components in toys, including activity toys, and childcare articles, that come into direct as well as prolonged or short-term repetitive contact with the human skin or the oral cavity			• 0.00005% by weight (0.5 ppm)				
			Representative examples of relevant substance(1)							
			Substance name	CAS RN						
			Benzo[a]pyrene (BaP)	50-32-8						
			Benzo[e]pyrene (BeP)	192-97-2						
			Benzo[a]anthracene (BaA)	56-55-3						
			Chrysen (CHR)	218-01-9						
			Benzo[b]fluoranthene (BbFA)	205-99-2						
			Benzo[j]fluoranthene (BjFA)	205-82-3						
			Benzo[k]fluoranthene (BkFA)	207-08-9						
			Dibenzo[a,h]anthracene (DBAha)	53-70-3						



No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
23	Selected four Phthalates • Bis (2-ethylhexyl) phthalate (DEHP) • Dibutyl phthalate phthalate (DBP) • Benzyl butyl (BBP) • Diisobutyl phthalate (DIBP)	RoHS Directive 2011/65/EU	All	• 0.1% by weight (1,000ppm)  Total for one of four substances or total for multiple substances	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	
		To modify the European Commission delegation Directive (EU) 2015/863				
		Substance name				CAS RN
		Bis (2-ethylhexyl) phthalate (DEHP)				117-81-7
		Dibutyl phthalate (DBP)				84-74-2
		Benzyl butyl phthalate (BBP)				85-68-7
		Diisobutyl phthalate (DIBP)				84-69-5
24	Perfluorooctanoic acid (PFOA)	• Annex XVII of REACH Regulation • Annex I of Stockholm convention on POPs	All	PFOA and its salts • Intentionally added(2) • 25 ppb for PFOA and its salts  PFOA-related substances • Intentionally added(2) • 1,000 ppb in total for one or multiple substances	Fluorine coating, water repellent, fire extinguishing material, photographic coatings applied to paper, resin modifiers	
		[Exemptions] (1) Resist and anti-reflective coating used in the photolithography process (2) Photographic film, photo paper, printing plates *Both (1) and (2) expire on July 4, 2025				
		Typical examples of applicable chemical substances ( 1 )				
		Substance name				CAS RN
		Perfluorooctanoic acid (PFOA)				335-67-1
		Ammonium pentadecafluorooctanoate (APFO)				3825-26-1
		Sodium perfluorooctanoate				335-95-5
Potassium perfluorooctanoate	2395-00-8					
Silver perfluorooctanoate	335-93-3					
Chromium(3+) perfluorooctanoate	68141-02-6					
Ethanaminium, N,N,N-triethyl-, pentadecafluorooctanoate (1:1) and its salts	98241-25-9					
Hexanoic acid, 2,3,3,4,4,5,5,6,6,6-decafluoro-2-(1,1,2,2,2-pentafluoroethyl)-, ammonium salt (1:1)	13058-06-5					
Pentadecafluorooctyl fluoride	335-66-0					
Methyl perfluorooctanoate	376-27-2					
Ethyl perfluorooctanoate	3108-24-5					
Triethoxy(1H,1H,2H,2H-heptafluorodecyl)silane	101947-16-4					
1,3-Propanediol, 2,2-bis(.gamma.-omega.-perfluoro-C4-10-alkyl) thiomethyl derivs., phosphates, ammonium salts	148240-85-1					
1,3-Propanediol, 2,2-bis(.gamma.-omega.-perfluoro-C6-12-alkyl) thiomethyl derivs., phosphates, ammonium salts	148240-87-3					
2-Propenoic acid, C16-18-alkyl esters, polymers with 3,3,4,4,5,5,	160336-09-4					
2-(Heptafluorooctyl)ethylmethacrylate	1996-88-9					
1,1,1,2,2,3,3,4,4,5,5,6,6,7,7,8,8-heptafluoro-10-iododecane	2043-53--0					
Cyclotetrasiloxane, 2-(4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptafluoroundecyl)-2,4,6,8-tetramethyl-, Si-[3-(oxiranylmethoxy)propyl] derivs.	206886-57-9					
1H,1H,2H-Heptafluoro-1-decene	21652-58-4					
3,4-Bis((2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentafluoro-1-oxooctyl)amino)benzenesulphonyl chloride	24216-05-5					
2H,2H-Perfluorodecanoic acid	27854-31-5					
1H,1H,2H,2H-Heptafluorodecyl acrylate	27905-45-9					
1H,1H,2H,2H-Perfluorodecylmethyldichlorosilane	3102-79-2					
Phosphine, tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)phenyl]	325459-92-5					
Bis[tris[4-(3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl)phenyl]phosphine]palladium(II) dichloride	326475-46-1					
Pentadecafluorooctanoic anhydride	33496-48-9					
N-(2-carboxyethyl)-N,N-bis(2-hydroxyethyl)-3-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentafluoro-1-oxooctyl)amino]-1-propanaminium	39186-68--0					
Perfluorooctylphosphoric acid; C8/PFPA	40143-78--0					
Bis(perfluorooctyl)phosphinic acid; C8/C8-PFPIA	40143-79-1					
N-[3-[bis(2-hydroxyethyl)amino]propyl]-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentafluorooctanamide	41358-63-8					
Heptafluoro-n-octyl iodide	507-63-1					
2-Propenoic acid, 2-methyl-, 2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentafluorooctyl ester, polymer with 2-propenoic acid	53515-73-4					
N-[3-(Perfluorooctanoylamido) propyl]-N,N,N-trimethylammonium chloride	53517-98-9					
3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptafluorodecyl dihydrogen phosphate	57678-03-2					
Bis(perfluorooctyl)phosphinic acid; C6/C8-PFPIA	610800-34-5					
Poly(difluoromethylene), alpha-fluoro-omega-[2-[[2-(trimethylammonio) ethyl]thio]ethyl]-, methyl sulfate	65530-57-6					
Poly(difluoromethylene), alpha-fluoro-omega-2-(phosphonoxy) ethyl-	65530-61-2					

24	Perfluorooctanoic acid (PFOA)	Substance name		CAS RN					
		Poly(difluoromethylene), .alpha.,.alpha.-phosphinicobis(oxy-2,1-ethanediyl)bis.omega.-fluoro-1H,1H,2H,2H-Heptadecafluoro-1-decanol		65530-62-3					
		Phosphoric acid bis[2-(heptadecafluorooctyl)ethyl]		678-39-7					
		Fatty acids, C7-13, perfluoro		678-41-1					
		Fatty acids, C7-13, perfluoro, compds. with ethylamine		68333-92-6					
		2-Decenoic acid,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10- hexadecafluoro-		69278-80-4					
		Pentanoic acid, 4,4-bis[(gamma-omega-perfluoro-C8-20-alkyl)thio]derivs., compds. with diethanolamine		70887-84-2					
		Fatty acids, C6-18, perfluoro, ammonium salts		71608-61-2					
		Carboxylic acids, C7-13, perfluoro, ammonium salts		72623-77-9					
		Perfluorooctylethyldimethylchlorosilane		72968-38-8					
		Trichloro(1H,1H,2H,2H-heptadecafluorodecyl)silane		74612-30-9					
		Poly(difluoromethylene), alpha-fluoro-omega-(2-sulfoethyl)-		78560-44-8					
		Trimethoxy(1H,1H,2H,2H-heptadecafluorodecyl)silane		80010-37-3					
		Heptadecafluoro-1-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctyl)oxy]nonene		83048-65-1					
		N-(3-aminopropyl)-2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluorooctanamide		84029-60-7					
		l-Propanesulfonic acid,3-[ethyl (2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]-		85938-56-3					
		Octanoic acid, pentadecafluoro-, mixed esters with 2,2'-[1,4-butanediylbis(oxyethylene)]bis[oxirane] and 2,2'-[1,6-hexanediylbis(oxyethylene)]bis[oxirane]		89685-61--0					
		Amides, C7-19, alpha-omega-perfluoro-N,N-bis(hydroxyethyl)		90480-57-2					
		Fatty acids, C7-19, perfluoro		90622-99-4					
		Poly(oxy-1,2-ethanediyl),a-[2-[(2,2,3,3,4,4,5,5,6,6,7,7,8,8,8-pentadecafluoro-1-oxooctyl)amino]ethyl]-w-hydroxy-		91032-01-8					
Diammonium 3,3,4,4,5,5,6,6,7,7,8,8,9,9,10,10,10-heptadecafluorodecyl phosphate		93480--00-3							
Diammonium 4,4,5,5,6,6,7,7,8,8,9,9,10,10,11,11,11-heptadecafluoro-2-hydroxyundecyl phosphate		93857-44-4							
Carbamic acid, [2-(sulfothio)ethyl]-, C-(gamma-omega-perfluoro-C6-9-alkyl) esters, monosodium salts		94200-45--0							
95370-51-7									
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use				
25	1,2-benzenedicarboxylic acid, dihexyl ester, branched and linear(1)	*Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	•Intentionally added (2) •0.1% by weight (1,000 ppm)	Plasticizer				
						Typical examples of applicable chemical substances(1)			
						Substance name	CAS RN		
	1,2-benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4							
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use				
26	Dihexyl phthalate	*Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	0.1% by weight (1,000 ppm) Intentionally added (2)	Plasticizer				
						Typical examples of applicable chemical substances (Note 1)			
						Substance name	CAS RN		
	Dihexyl phthalate	84-75-3							
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use				
27	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	Annex XIV of REACH Regulation (EC) No 1907/2006	Chemical substance (a) Other constituents (b) Mixture	•Intentionally added (2) 0.1% by weight (1,000 ppm)	-				
						Typical examples of applicable chemical substances (1)			
						Substance name	CAS RN		
	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters or mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate	68515-51-5 68648-93-1							
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use				
28	Trixylyl phosphate (Phosflex 179)	*Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	•Intentionally added (2) 0.1% by weight (1,000 ppm)	Plasticizer, raw material for fire-resistant hydraulic fluid				
						Typical examples of applicable chemical substances (1)			
						Substance name	CAS RN		
	Trixylyl phosphate(Phosflex 179)	25155-23-1							

No.	Substance/Category	Main laws and ordinances	Applications	Standard Value	Examples of Use					
29	Sodium perborate and its salts	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	Oxidative bleaching agent, disinfectant, antiseptic, dyeing auxiliary, raw material for quasi-drugs					
						Typical examples of applicable chemical substances (1)				
						Substance name				CAS RN
						Sodium perborate and its salts				15120-21-5 11138-47-9 10332-33-9 13517-20-9 10486-00-7 37244-98-7 90568-23-3 125022-34-6
30	Sodium perborate	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	Oxidative bleaching agent, disinfectant, antiseptic, dyeing auxiliary, raw material for quasi-drugs					
						Typical examples of applicable chemical substances (1)				
						Substance name				CAS RN
						Sodium perborate				7632-04-4
31	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] and covering any of the individual stereoisomers of [1] and [2] or any combination thereof	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	-					
						Typical examples of applicable chemical substances (1)				
						Substance name				CAS RN
						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] and covering any of the individual stereoisomers of [1] and [2] or any combination thereof				117933-89-8 343934-04-3 343934-05-4 676367-02-5 676367-03-6 676367-04-7 676367-05-8 676367-06-9 676367-07-0 676367-08-1 676367-09-2 186309-28-4
32	2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	Benzotriazole ultraviolet absorber					
						Typical examples of applicable chemical substances (1)				
						Substance name				CAS RN
						2-(2H-Benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)				25973-55-1
33	2-(2-hydroxy-3,5-di-tert-butylphenyl)-5-chlorobenzotriazole (UV-327)	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	Ultraviolet absorber					
						Typical examples of applicable chemical substances (1)				
						Substance name				CAS RN
						2-(2-hydroxy-3,5-di-tert-butylphenyl)-5-chlorobenzotriazole (UV-327)				3864-99-1
The start date for when the prohibitions will be applied to parts delivered to Stanley will be <b>November 27, 2023</b> .										

No.	Substance/Category	Main laws and ordinances	Applications	Standard Value	Examples of Use
34	2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butyl-butylphenol (UV-350)	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added (2) 0.1% by weight (1,000 ppm)	Ultraviolet absorber
		Typical examples of applicable chemical substances (1)			
		Substance name			CAS RN
		2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butyl-butylphenol (UV-350)			36437-37-3
The start date for when the prohibitions will be applied to parts delivered to Stanley will be <b>November 27, 2023</b> .					
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use
35	Perfluorohexanesulfonic acid (PFHxS), its salts, and PFHxS-related substances	• Candidate added to POPs Convention Annex 1	All	Intentionally added (2)	Carpet, leather, textiles, paper, plating, electronic components
		Substance name			CAS RN
		Perfluorohexanesulfonic acid (PFHxS)			355-46-4
		Sodium perfluorohexanesulfonate			82382-12-5
		Potassium perfluorohexanesulfonate			3871-99-6
Lithium perfluorohexanesulfonate			55120-77-9		
Ammonium perfluorohexanesulfonate			68259-08-5		

2. Scheduled to be prohibited

No.	Substance/Category	Main laws and ordinances	Applications	Standard Value	Examples of Use	
1	Tetraethyllead	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Antiknock agents (octane boosters)	
		Typical examples of applicable chemical substances (1)				
		Substance name				CAS RN
		Tetraethyllead				78--00-2
		The start date for when the prohibitions will be applied to parts delivered to Stanley will be May 1, 2025.				
2	Methyl Violet B base	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Stationery ink manufacturing, dyes	
		Typical examples of applicable chemical substances (1)				
		Substance name				CAS RN
		Methyl Violet B base				561-41-1
		The start date for when the prohibitions will be applied to parts delivered to Stanley will be May 1, 2025.				
3	1,3,4-thiadiazolidine-2,5-dithion, formaldehyde, reaction products with branched and linear 4-heptylphenol (RP-HP) [branched and linear 4-heptylphenol content of 0.1% or more]	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Additives in lubricants and greases	
		Typical examples of applicable chemical substances (1)				
		Substance name				CAS RN
		1,3,4-thiadiazolidine-2,5-dithion, formaldehyde, reaction products with branched and linear 4-heptylphenol (RP-HP) [branched and linear 4-heptylphenol content of 0.1% or more]				(1471311-26-8) (93925-00-9)
		The start date for when the prohibitions will be applied to parts delivered to Stanley will be May 1, 2025.				
4	Diocetylstannanediybis(thio)bis(acetic acid 2-ethylhexyl)	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Adhesive for joining rigid PVC pipes	
		Typical examples of applicable chemical substances (1)				
		Substance name				CAS RN
		Diocetylstannanediybis(thio)bis(acetic acid 2-ethylhexyl)				15571-58-1
		The start date for when the prohibitions will be applied to parts delivered to Stanley will be May 1, 2025.				
5	Reaction products of dioctylstannanediybis(thio)bis(acetic acid 2-ethylhexyl) ester and octyltris(2-ethylhexyloxycarbonylmethylthio)stannane	• Annex XIV of REACH Regulation	Chemical substance (a) Other constituents (b) Mixture	• Intentionally added(2) • 0.1% by weight (1,000 ppm)	Stabilizers for polymer manufacturing	
		Typical examples of applicable chemical substances (1)				
		Substance name				CAS RN
		Reaction products of dioctylstannanediybis(thio)bis(acetic acid 2-ethylhexyl) ester and octyltris(2-ethylhexyloxycarbonylmethylthio)stannane				(27107-89-7)
		The start date for when the prohibitions will be applied to parts delivered to Stanley will be May 1, 2025.				

3. Declarable

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
1	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Plasticizer,dye, pigment,paint, ink,adhesive,lubricant	
		Substance name		CAS RN		
		1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)		68515-42-4		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
2	Beryllium oxide (BeO)	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Ceramics	
		Substance name		CAS RN		
		Beryllium oxide (BeO)		1304-56-9		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
3	Bis(2-methoxyethyl) ether	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Electrolyte in batteries	
		Substance name		CAS RN		
		Bis(2-methoxyethyl) ether		111-96-6		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
4	Boric acid	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	In wood veneers/pressed wooden panels as starch additive, flame retardant and stabilizer in aminoplastic resin, wood preservative, as flame retardant in wood, cotton and other plant derived material	
		Substance name		CAS RN		
		Boric acid		10043-35-3 11113-50-1		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
5	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	JIS709	Plastic materials except printed wiring board laminates(5)	•0.1% total bromine content by weight (1,000 ppm) in the plastic material	flame retardant for housing, connectors,package molding sealing	
		IPC-4101 IEC61249-2-21	Printed wiring board laminate(5)	•0.09% total bromine content by weight (900 ppm) in the laminate	flame retardant	
		Representative examples of relevant substance( 1 )				
		Substance name		CAS RN		
		Poly(2,6-dibromo-phenylene oxide)		69882-11-7		
		Tetra-decabromo-diphenoxy-benzene		58965-66-5		
		1,2-Bis(2,4,6-tribromo-phenoxy) ethane		37853-59-1		
		3,5,3',5'-Tetrabromo-bisphenol A (TBBA)		79-94-7		
		TBBA, unspecified		30496-13-0		
		TBBA-epichlorhydrin oligomer		40039-93-8		
		TBBA-TBBA-diglycidyl-ether oligomer		70682-74-5		
		TBBA carbonate oligomer		28906-13-0		
		TBBA carbonate oligomer, phenoxy end capped		94334-64-2		
		TBBA carbonate oligomer, 2,4,6-tribromo-phenol terminated		71342-77-3		
		TBBA-bisphenol A-phosgene polymer		32844-27-2		
		Brominated epoxy resin end-capped with tribromophenol		139638-58-7		
		Brominated epoxy resin end-capped with tribromophenol		135229-48-0		
		TBBA-(2,3-dibromo-propyl-ether)		21850-44-2		
		TBBA bis-(2-hydroxy-ethyl-ether)		4162-45-2		
		TBBA-bis-(allyl-ether)		25327-89-3		
		TBBA-dimethyl-ether		37853-61-5		
		Tetrabromo-bisphenol S		39365-79-5		
		TBBS-bis-(2,3-dibromo-propyl-ether)		42757-55-1		
		2,4-Dibromo-phenol		615-58-7		
		2,4,6-tribromo-phenol		118-79-6		
		Pentabromo-phenol		608-71-9		
		2,4,6-Tribromo-phenyl-allyl-ether		3278-89-5		
Tribromo-phenyl-allyl-ether, unspecified		26762-91-4				
Bis(methyl)tetrabromo-phthalate		55481-60-2				
Bis(2-ethylhexyl)tetrabromo-phthalate		26040-51-7				
2-Hydroxy-propyl-2-(2-hydroxy-ethoxy)-ethyl-TBP		20566-35-2				
TBPA, glycol-and propylene-oxide esters		75790-69-1				

No.	Substance/Category	Substance name	CAS RN			
5	Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)	N,N'-Ethylene .bis-(tetrabromo-phthalimide)	32588-76-4			
		Ethylene-bis(5,6-dibromo-norbornane-2,3-dicarboximide)	52907-07-0			
		2,3-Dibromo-2-butene-1,4-diol	3234-02-4			
		Dibromo-neopentyl-glycol	3296-90-0			
		Dibromo-propanol	96-13-9			
		Tribromo-neopentyl-alcohol	36483-57-5			
		Poly tribromo-styrene	57137-10-7			
		Tribromo-styrene	61368-34-1			
		Dibromo-styrene grafted PP	171091-06-8			
		Poly-dibromo-styrene	31780-26-4			
		Bromo-/Chloro-paraffins	68955-41-9			
		Bromo-/Chloro-alpha-olefin	82600-56-4			
		Vinylbromide	593-60-2			
		Tris-(2,3-dibromo-propyl)-isocyanurate	52434-90-9			
		Tris(2,4-Dibromo-phenyl) phosphate	49690-63-3			
		Tris(tribromo-neopentyl) phosphate	19186-97-1			
		Chlorinated and brominated phosphate ester	125997-20-8			
		Pentabromo-toluene	87-83-2			
		Pentabromo-benzyl bromide	38521-51-6			
		1,3-Butadiene homopolymer,brominated	68441-46-3			
		Pentabromo-benzyl-acrylate, monomer	59447-55-1			
		Pentabromo-benzyl-acrylate, polymer	59447-57-3			
		Decabromo-diphenyl-ethane	84852-53-9			
		Tribromo-bisphenyl-maleinimide	59789-51-4			
		Tetrabromo-cyclo-octane	31454-48-5			
		1,2-Dibromo-4-(1,2 dibromo-methyl)-cyclo-hexane	3322-93-8			
		Tetrabromophthalic acid Na salt	25357-79-3			
Tetrabromo phthalic anhydride	632-79-1					
Octabromo-1,1,3-trimethyl-1-phenylindane (FR-1808)	155613-93-7					
Other Brominated Flame Retardants	-					
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
6	Chlorinated flame retardants	JIS709	Plastic materials except printed wiring board laminates(5)	0.1% total chlorine content by weight (1,000 ppm) in the plastic material	flame retardant for housing, connectors, package molding sealing	
		IPC-4101 IEC61249-2-21	Printed wiring board laminate(5)	0.09% total chlorine content by weight (900 ppm) in the laminate	flame retardant	
		Representative examples of relevant substance(1)				
		Substance name		CAS RN		
		Tetrakis(2-chloroethyl)dichloroisopentylidiphosphate		38051-10-4		
		Tris(1-chloro-2-propyl)phosphate		13674-84-5		
		Tris(2,3-dichloro-1-propyl)phosphate		66108-37-0		
		Other Chlorinated Flame Retardants		-		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
7	Cobalt dichloride (CoCl2)	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Catalysts, paints, pigments, ink desiccants, platings, medical applications, pharmaceutical applications (patch test patches)	
		Substance name		CAS RN		
		Cobalt dichloride (CoCl2)		7646-79-9		
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
8	Diarsenic pentoxide	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Additive in wood, metal, glass and plastics	
		Substance name		CAS RN		
		Diarsenic pentoxide		1303-28-2		

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use
9	Fluorinated greenhouse gases (HFC, PFC, SF6)	IEC62474	Refer to the followings as products, equipments and gases to be prohibited	Intentionally added(2)	Refrigerants, blowing agents, extinguishing agents, cleaning agents, insulating media, caustic gas
Representative examples of relevant substance(1)					
		Substance name	CAS RN	GWP (※1)	
Hydrofluorocarbons (HFCs)					
		Trifluoromethane (fluoroform) (HFC-23)	75-46-7	14,800	
		Difluoromethane (HFC-32)	75-10-5	675	
		Methyl fluoride (methyl fluoride) (HFC-41)	593-53-3	92	
		Pentafluoroethane (HFC-125)	354-33-6	3,500	
		1,1,2,2-Tetrafluoroethane (HFC-134)	359-35-3	1,100	
		1,1,1,2-Tetrafluoroethane (HFC-134a)	811-97-2	1,430	
		1,1,2-Trifluoroethane (HFC-143)	430-66-0	353	
		1,1,1-Trifluoroethane (HFC-143a)	420-46-2	4,470	
		1,2-Difluoroethane (HFC-152)	-	53	
		1,1-Difluoroethane (HFC-152a)	75-37-6	124	
		Fluoroethane (ethyl fluoride) (HFC-161)	-	12	
		1,1,1,2,3,3,3-Heptafluoropropane (HFC-227ea)	431-89-0	3,220	
		1,1,1,2,2,3-Hexafluoro-propane (HFC-236cb)	677-56-5	1,340	
		1,1,1,2,3,3-Hexafluoropropane (HFC-236ea)	431-63-0	1,370	
		1,1,1,3,3,3-Hexafluoropropane (HFC-236fa)	690-39-1	9,810	
		1,1,2,2,3-Pentafluoropropane (HFC-245ca)	679-86-7	693	
		1,1,1,3,3-Pentafluoropropane (HFC-245fa)	460-73-1	1,030	
		1,1,1,3,3-Pentafluorobutane (HFC-365mfc)	406-58-6	794	
		1,1,1,2,2,3,4,5,5,5-Decafluoropentane (HFC-43-10mee)	138495-42-8	1,640	
Perfluorocarbons (PFCs)					
		Tetrafluoromethane(perfluoromethane, carbon tetrafluoride) (PFC-14)	75-73-0	7,300	
		Hexafluoroethane (perfluoroethane) (PFC-116)	76-16-4	12,200	
		Octafluoropropane (perfluoropropane) (PFC-218)	76-19-7	8,830	
		Decafluorobutane (perfluorobutane) (PFC-31-10)	355-25-9	8,860	
		Dodecafluoropentane (perfluoropentane) (PFC-41-12)	678-26-2	9,160	
		Tetradecafluorohexane (perfluorohexane)(PFC-51-14)	355-42-0	9,300	
		Octafluorocyclobutane (perfluorocyclobutane)(PFC-c318)	115-25-3	10,300	
Other perfluorinated compounds					
		Sulfur hexafluoride (SF6)	2551-62-4	22,800	
(※1) GWP : global warming potential					
Products, equipments and gases to be prohibited					
Products and equipments			Gases	GWP(※2)	Date of prohibition
Re-filling is an impossible container.			HFCs, PFCs, SF <sub>6</sub>	-	already prohibited
Non-confined direct evaporation systems			HFCs, PFCs	-	already prohibited
Fire protection equipment			PFCs	-	already prohibited
			HFC-23	-	already prohibited
Windows for domestic use			HFCs, PFCs, SF <sub>6</sub>	-	already prohibited
Other windows			HFCs, PFCs, SF <sub>6</sub>	-	already prohibited
Footwear			HFCs, PFCs, SF <sub>6</sub>	-	already prohibited
Tyres			HFCs, PFCs, SF <sub>6</sub>	-	already prohibited
One-component foams, except when required to meet national safety standards			HFCs, PFCs, SF <sub>6</sub>	≥ 150	already prohibited
Aerosol generators marketed and intended for sale to the general public for entertainment and decorative purposes, as listed in point 40 of Annex XVII to Regulation (EC) No 1907/2006, and signal horns			HFCs	≥ 150	already prohibited
Domestic refrigerators and freezers			HFCs	≥ 150	already prohibited



No.	Substance/Category	Products and equipments	Gases	GWP(※2)	Date of prohibition	
9	Fluorinated greenhouse gases (HFC, PFC, SF6)	Refrigerators and freezers for commercial use (hermetically sealed equipment)	HFCs	≥ 2500	already prohibited	
				≥ 150	already prohibited	
		Multipack centralised refrigeration systems for commercial use with a rated capacity of 40 kW or more except in the primary refrigerant circuit of cascade systems where fluorinated greenhouse gases with a GWP of less than 1,500 may be used	HFCs, PFCs, SF <sub>6</sub>	≥ 150	already prohibited	
		Movable room air-conditioning equipment (hermetically sealed equipment which is movable between rooms by the end user)	HFCs	≥ 150	already prohibited	
		Single split air-conditioning systems containing less than 3 kg of fluorinated greenhouse gases	HFCs, PFCs, SF <sub>6</sub>	≥ 750	Jan.1,2025	
		Foams except when required to meet national safety standards	Extruded polystyrene(XPS)	HFCs	≥ 150	already prohibited
			Other foams			already prohibited
		Technical aerosols except when required to meet national safety	HFCs	≥ 150	already prohibited	
		Fluorinated				
(※2) the GWP of mixtures containing fluorinated greenhouse gases shall be calculated in accordance with Annex IV of (EU) No 517/2014 .						

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
10	Formaldehyde	• Annex XVII of REACH Regulation	fabric	•0.0075% by weight	fabric	
		Substance name			CAS RN	
		Formaldehyde			50-00-0	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
11	Nickel and nickel compounds (6)	• Annex XVII of REACH Regulation	All,where prolonged skin contact is expected	Intentionally added(2),(6)	Stainless steel,plating;example application for prolonged skin contact is an ear bud (headphone),mobile phone	
		Substance name			CAS RN	
		Nickel			7440-02-0	
		Nickel (II) sulfate hexahydrate			10101-97-0	
		Nickel oxide			11099-02-8	
Nickel hydroxide (II)			12054-48-7			
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
12	Selected Phthalates Group 2(7) (DIDP, DINP, DNOP)	• Annex XVII of REACH Regulation	Children's toy or child care article that can be placed in a child's mouth	•0.1% by weight (1,000 ppm)	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	
		Representative examples of relevant substance(1)				
		Substance name				CAS RN
		Diisodecyl phthalate (DIDP)				76761-40-0 68515-49-1
		Diisononyl phthalate (DINP)				28553-12-0 68515-48-0
		Di-n-octyl phthalate (DNOP)				117-84-0
		Note: The reporting requirement refers to the sum of just those substances listed above				
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
13	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	• IEC62474	All	•0.1% by weight (1,000 ppm)	Unreacted process chemical	
		Substance name			CAS RN	
		4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)			140-66-9	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
14	Tris (2-chloroethyl) phosphate (TCEP)	• Annex XVII of REACH Regulation	All	•0.1% by weight (1,000 ppm)	Flame retardant	
		Substance name			CAS RN	
		Tris (2-chloroethyl) phosphate (TCEP)			115-96-8	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
15	Other SVHC	• REACH Regulation - SVHC	All	0.1 weight % (1,000ppm)		
		Substance name			CAS RN	
		Must confirm the text of the laws and regulations (latest versions) <a href="https://echa.europa.eu/candidate-list-table">https://echa.europa.eu/candidate-list-table</a>				
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
16	Perfluorohexanoic acid (PFHxA) and its salts and PFHxA related substances	• Candidates to be added to Annex I of Stockholm convention on POPs	All	• Intentionally added (2)	Carpet, leather, fiber, paper, plating, electronic component	
		Substance name			CAS RN	
		Perfluorohexanoic acid (PFHxA)			307-24-4	
		Sodium salt of perfluorohexanoic acid			2923-26-4	
Ammonium salt of perfluorohexanoic acid			21615-47-4			
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
17	Tris (2,3-dibromopropyl) phosphate (TRIS)	• Annex XVII of REACH Regulation	All	• Intentionally added (2)		
		Substance name			CAS RN	
		Tris(2,3-dibromopropyl)phosphate(TRIS)			126-72-7	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
18	Tris (1-aziridinyl) phosphine oxide (TEPA)	• Annex XVII of REACH Regulation	すべて	• Intentionally added (2)		
		Substance name			CAS RN	
		Tris (1-aziridinyl) phosphine oxide (TEPA)			545-55-1	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
19	Hexachlorobenzene	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Raw materials for insecticide, etc.	
		Substance name			CAS RN	
		Hexachlorobenzene			118-74-1	

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
20	Aldrin	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Insecticide	
		Substance name				CAS RN
		Aldrin				309-00-2
21	Dieldrin	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Insecticide	
		Substance name				CAS RN
		Dieldrin				60-57-1
22	Endrin	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Insecticide	
		Substance name				CAS RN
		Endrin				72-20-8
23	DDT	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Insecticide	
		Substance name				CAS RN
		DDT				50-29-3
24	Chlordanes	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Termite insecticide, etc.	
		Substance name				CAS RN
		Chlordanes				12789-03-6
25	N,N'-Ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine, or N,N'-dixylyl-p-phenylenediamine	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Rubber antioxidants and styrene-butadiene rubber	
		Substance name				CAS RN
		N,N'-Ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine, or N,N'-dixylyl-p-phenylenediamine				27417-40-9
26	Toxaphene	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	(Agricultural and livestock) insecticide and miticide	
		Substance name				CAS RN
		Toxaphene				8001-35-2
27	Mirex	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Flame retardants for resins, rubber, paints, paper, textiles, electrical products, etc.; insecticide and anticide	
		Substance name				CAS RN
		Mirex				2385-85-5

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
28	Kelthane (Dicofol)	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Tick repellent	
		Substance name				CAS RN
		Kelthane (Dicofol)				115-32-2
29	Hexachloro-1,3-butadiene	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Solvent	
		Substance name				CAS RN
		Hexachloro-1,3-butadiene				87-68-3
30	Pentachlorobenzene	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Raw materials for insecticide, etc.	
		Substance name				CAS RN
		Pentachlorobenzene				608-93-5
31	alpha-hexachlorocyclohexane	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	By-product of CAS RN58-89-9	
		Substance name				CAS RN
		alpha-hexachlorocyclohexane				319-84-6
32	beta-Hexachlorocyclohexane	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	By-product of CAS RN58-89-9	
		Substance name				CAS RN
		beta-Hexachlorocyclohexane				319-85-7
33	gamma-Hexachlorocyclohexane	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Agrichemicals and insecticide	
		Substance name				CAS RN
		gamma-Hexachlorocyclohexane				58-89-9
34	Chlordecone	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Agrichemicals and insecticide	
		Substance name				CAS RN
		Chlordecone				143-50-0
35	Endosulfan	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)		
		Substance name				CAS RN
		Endosulfan				115-29-7 959-98-8 33213-65-9
36	Pentachlorophenol and its salts and esters	• Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.	All	• Intentionally added (2)	Agrichemicals	
		Substance name				CAS RN
		Pentachlorophenol and its salts and esters				87-86-5
37	4,4'-isopropylidenediphenol (bisphenolA; BPA)	• Annex XVII of REACH Regulation	All	• Intentionally added (2) • 0.02% by weight (200 ppm)		
		Substance name				CAS RN
		4,4'-isopropylidenediphenol (bisphenolA; BPA)				80-05-7
38	CMR substances under Annex XVII of REACH Regulation (excluding substances already designated prohibited chemical substances)	• Annex XVII of REACH Regulation	• Clothing and related accessories • Fiber products • Footwear	• Intentionally added (2)	Straps, bags, pouches, etc.	
		Typical examples of appropriate chemical substances (1)				
		Substance name				CAS RN
		Benzene				71-43-2
		alpha,alpha,alpha-tetrachlorotoluene; p-chlorobenzotrichloride				5216-25-1
		alpha,alpha,alpha-trichlorotoluene, benzotrichloride				98-07-7
		alpha-chlorotoluene; benzyl chloride				100-44-7
		1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich				71888-89-6
		Bis(2-methoxyethyl) phthalate				117-82-8
		Diisopentyl phthalate				605-50-5
		Dipentyl phthalate (DPP)				131-18-0
		N-methylpyrrolidone; 1-Methyl-2-pyrrolidinone (NMP)				872-50-4
		N,N-Dimethylethanamide (DMAC)				127-19-5
		N,N-Dimethylmethanamide; Dimethylformamide				68-12-2
		1,4,5,8-tetraaminoanthraquinone, Disperse blue 1				2475-45-8

No.	Substance/Category	Substance name			CAS RN	
38	CMR substances under Annex XVII of REACH Regulation (excluding substances already designated prohibited chemical substances)	Benzamine, 4,4'-((4-iminocyclohexa-2,5-dienylidene)methylene)dianiline hydrochloride; Basic Red 9			569-61-9	
		4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride; Basic Violet 3			548-62-9	
		5-Chloro-2-methylaniline hydrochloride			3165-93-3	
		2-Naphthylammonium acetate			553--00-4	
		4-Methoxy-m-phenylenediamine sulfate; 2,4-Diaminoanisole sulfate			39156-41-7	
		2,4,5-Trimethylaniline hydrochloride			21436-97-5	
		Quinoline			91-22-5	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
39	Polyvinyl chloride (PVC) and PVC mixture	• Annex XVII of REACH Regulation	All	• 0.1% by weight (1000 ppm)	• Packaging materials and accessories	
		Substance name			CAS RN	
		Polyvinyl chloride (PVC)			9002-86-2	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
40	Arsenic and arsenic compounds	• Annex XVII of REACH Regulation	All	• Intentionally added (2) • 0.0001% by weight (1 ppm)	Wood, clothing, accessories, fibers and glass	
		Typical examples of appropriate chemical substances (1)				
		Substance name			CAS RN	
		Arsenic			7440-38-2	
		Copper chromated arsenate (CCA)			37337-13-6	
		Arsenic trioxide			1327-53-3	
		Triethyl arsenate			15606-95-8	
Acid lead arsenate (II)			3687-31-8			
Calcium arsenate			7778-44-1			
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
41	Radioactive material	• EU-D 96/29/Euratom • Act on Prevention of Radiation Hazards due to Radioisotopes, etc.	All	• Intentionally added (2)	Optical characteristics (thorium), measuring devices, gauges and sensors	
		Typical examples of appropriate chemical substances (1)				
		Substance name			CAS RN	
		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			
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
42	Phenol, isopropylated, phosphate (3:1)	• Toxic Substances Control Act (TSCA)	All	• Intentionally added (2)		
		Substance name			CAS RN	
		Phenol, isopropylated, phosphate			68937-41-7	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
43	2,4,6-Tri-tert-butylphenol	Toxic Substances Control Act (TSCA)	All excluding molded parts	Intentionally added(2)	Lubricant or fuel additives such as antioxidants	
		Substance name			CAS RN	
		2,4,6-Tri-tert-butylphenol			732-26-3	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
44	Pentachlorothiophenol (PCTP)	Toxic Substances Control Act (TSCA)	All	Intentionally added(2)	Rubber peptizers	
		Substance name			CAS RN	
		Pentachlorothiophenol (PCTP)			133-49-3	
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
45	C9-C14 Perfluorocarboxylic acids (PFCAs), their salts, and related substances	• Annex XVII of REACH Regulation	All excluding the following exempted applications:	Intentionally added(2)	Fire extinguishing agents, water repellents, surfactants, corrosion inhibitors, etchants, anti-reflective films, photoresists, plating solutions, activators, coatings, solders, lubricants, adhesives, paints, inks, paper surface treatment agents, resin modifiers	
		Substance name			CAS RN	
		Perfluoronanoic acid (PFNA: C9 PFCA)			375-95-1	
		Sodium perfluoronanoate			21049-39-8	
		Ammonium perfluoronanoate			4149-60-4	
		Perfluorodecanoic acid (PFDA: C10 PFCA)			335-76-2	
		Sodium perfluorodecanoate			3830-45-3	
		Ammonium perfluorodecanoate			3108-42-7	
		Perfluoroundecanoic acid (PFUnDA: C11 PFCA)			2058-94-8	
		Perfluorododecanoic acid (PFDoDA: C12 PFCA)			307-55-1	
		Perfluorotridecanoic acid (PFTDA: C13 PFCA)			72629-94-8	
Perfluorotetradecanoic acid (PFTDA: C14 PFCA)			376-06-7			
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
46	Bis(chloromethyl) ether	Industrial Safety and Health Act	All	Intentionally added(2)	Dyes, pigments, methylating agents	
		Substance name			CAS RN	
		Bis(chloromethyl) ether			542-88-1	

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use	
47	Benzene	Industrial Safety and Health Act	Rubber cement containing benzene (5% or more)	Intentionally added(2)	Rubber cement	
		Substance name				CAS RN
		Benzene				71-43-2
48	Organophosphorus compounds (limited to parathion, methyl parathion, methyl demeton and EPN)	Water Pollution Prevention Act	All	Intentionally added(2)	Pesticides	
		Substance name				CAS RN
		Parathion				56-38-2
		Methyl parathion				298--00--0
		Methyl demeton				8022--00-2
EPN				2104-64-5		
49	2-chloro-4,6-bis(ethylamino)-1,3,5-triazine	Water Pollution Prevention Act	All	Intentionally added(2)	Agrochemicals	
		Substance name				CAS RN
		2-chloro-4,6-bis(ethylamino)-1,3,5-triazine				122-34-9
50	Trichloroethylene	Water Pollution Prevention Act	All	Intentionally added(2)	Cleaning agents, detergents	
		Substance name				CAS RN
		Trichloroethylene				79-01-6
51	Tetrachloroethylene	Water Pollution Prevention Act	All	Intentionally added(2)	Cleaning agents, detergents	
		Substance name				CAS RN
		Tetrachloroethylene				127-18-4
52	Yellow phosphorus matches	Industrial Safety and Health Act	All	Intentionally added(2)	Matches	
		Substance name				CAS RN
		Yellow phosphorus matches				12185-10-3
53	Dechlorane Plus	Additional candidate for the POPs Convention	All	Intentionally added(2)	Adhesives, sealants flame retardants	
		Substance name				CAS RN
		1, 6, 7, 8, 9, 14, 15, 16, 17, 17, 18, 18-Dodecachloropentacyclo[6, 9, 02, 13, 05, 10]octadeca-7, 15-diene				13560-89-9
		(1S, 2S, 5S, 6S, 9R, 10R, 13R, 14R)-1, 6, 7, 8, 9, 14, 15, 16, 17, 17, 18, 18-Dodecachloropentacyclo[12. 2. 1. 16, 9, 02, 13, 05, 10]octadeca- 7, 15-diene				135821-74-8
(1S, 2S, 5R, 6R, 9S, 10S, 13R, 14R)-1, 6, 7, 8, 9, 14, 15, 16, 17, 17, 18, 18-Dodecachloropentacyclo[12. 2. 1. 16, 9, 02, 13, 05, 10]octadeca-7, 15-diene				135821-03-3		
54	Tetrabromobisphenol A (TBBPA)	Additional candidate for the RoHS Directive	All	Intentionally added(2)	Flame retardants	
		Substance name				CAS RN
		Tetrabromobisphenol A (TBBPA)				79-94-7
55	Medium-chain chlorinated paraffins (MCCPs)	Additional candidate for the POPs Convention	All	Intentionally added(2)	Flame-retardant resin raw materials	
		Substance name				CAS RN
		Chloroalkanes (C=14-17)				85535-85-9

Notes:

(1) Representative examples of corresponding chemical substances:

This does not necessarily cover all enumerated chemical substances with a CAS NO corresponding to the classes of chemicals.

(2) Intentionally added: Intentionally added means that the corresponding substance or compound including the corresponding substance is intentionally added during manufacturing process, etc., irrespective of quantity. Ordinary impurities do not fall under this category.

The substance, for which "Intentionally added" is written in its threshold field, must not be intentionally added.

(3) The European Community's ban applies to azocolourants and azodyes that by reductive cleavage of azo groups may release one of the 22 aromatic amines listed. The Standard Value given applies to these amines, not to the azocolourants and azodyes.

(4) HBCD is also referred to as HBCDD. HBCD and HBCDD are the same substance.

(5) A printed wiring board laminate refers to the layered board materials excluding surface finishing and components

(6) Nickel must be reported in certain regulated applications where it is likely to result in prolonged skin exposure (e.g., an outer enclosure for a portable electronic product designed to be carried). Use of nickel or nickel contained in components and parts designed to be located inside the outer enclosure of a product need not be reported.

(7) The Standard Value here is the sum of the phthalate concentrations of the phthalates (identified in the respective Annex B tables) in the selected phthalate group designated by the Substance/Category.

## Annex 4. Exemptions from Annex III of the EU RoHS Directive

The following applications are excluded from the RoHS Directive as of September 6, 2023.

However, because RoHS Directive annexes are continuously being revised, it is necessary to confirm the latest information.

Refer to the European Commission website for the latest information.

[https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive\\_en](https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive_en)

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):					
1(a)	For general lighting purposes < 30 W : 2.5mg	Feb. 24, 2023 Deadline passed				
1(b)	For general lighting purposes ≥ 30 W and < 50 W : 3.5mg	Feb. 24, 2023 Deadline passed				
1(c)	For general lighting purposes ≥ 50 W and < 150 W : 5mg	Feb. 24, 2023 Deadline passed				
1(d)	For general lighting purposes ≥ 150 W : 15mg	Feb. 24, 2023 Deadline passed				
1(e)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm : 5mg	Feb. 24, 2023 Deadline passed				
1(f)- I	For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg	Feb. 24, 2027				
1(f)- II	For special purposes : 5mg	Feb. 24, 2025				
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20,000 h : 3.5 mg	Aug. 24, 2023 Deadline passed				
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) : 4mg	Feb. 24, 2023 Deadline passed				
2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5) : 3mg	Aug. 24, 2023 Deadline passed				
2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8) : 3.5mg	Aug. 24, 2023 Deadline passed				
2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12) : 3.5mg	Feb. 24, 2023 Deadline passed				
2(a)(5)	Tri-band phosphor with long lifetime (≥ 25,000 h) : 5mg	Feb. 24, 2023 Deadline passed				
2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):					
2(b)(1)	Straight tube halophosphate lamps with tube diameters larger than 28 mm (e.g., T10 and T12): 10 mg	Apr.13,2012 Deadline passed				
2(b)(2)	Non-straight-tube halophosphate lamps (all tube diameters): 15 mg	Apr.13,2016 Deadline passed				
2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) : 10mg	Feb. 24, 2025				
2(b)(4)-I	Lamps for other general lighting and special purposes (e.g. induction lamps) : 15mg	Update pending				
2(b)(4)- II	Lamps emitting mainly light in the ultraviolet spectrum: 15 mg	Feb. 24, 2027				
2(b)(4)- III	Emergency lamps: 15 mg	Feb. 24, 2027				

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
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) : 3.5mg	Feb. 24, 2025	/	/	/	/
3(b)	Medium length ( $> 500$ mm and $\leq 1,500$ mm) : 5mg	Feb. 24, 2025	/	/	/	/
3(c)	Long length ( $> 1,500$ mm) : 13mg	Feb. 24, 2025	/	/	/	/
4(a)	Mercury in other low pressure discharge lamps (per lamp) : 15mg	Feb. 24, 2023 Deadline passed	Feb. 24, 2023 Deadline passed	Feb. 24, 2023 Deadline passed	Feb. 24, 2023 Deadline passed	Feb. 24, 2023 Deadline passed
4(a)-I	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lamp-spectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp	Feb. 24, 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 $R_a > 60$ :					
4(b)	Mercury in high-pressure sodium (steam) lamps for general lighting applications with a power of 105 W or less and an average color rendering index of more than 80: 16 mg per burner	Feb. 22, 2027	/	/	/	/
4(b)- I	$P \leq 155W$ : 30 mg	Feb. 22, 2023 Deadline passed	/	/	/	/
4(b)- II	$155W < P \leq 405W$ : 40 mg	Feb. 22, 2023 Deadline passed	/	/	/	/
4(b)-III	$405W < P$ : 40 mg	Feb. 22, 2023 Deadline passed	/	/	/	/
4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding(per burner):					
4(c)- I	$P \leq 155 W$ : 20mg	Feb. 24, 2027	/	/	/	/
4(c)- II	$155 W < P \leq 405 W$ : 25mg	Feb. 24, 2027	/	/	/	/
4(c)-III	$405 W < P$ : 25mg	Feb. 24, 2027	/	/	/	/
4(d)	Mercury in High Pressure Mercury (vapour) lamps(HPMV)	Apr.13,2015 Deadline passed	Apr.13,2015 Deadline passed	/	/	/
4(e)	Mercury in metal halide lamps (MH)	Feb. 22, 2027	/	/	/	/
4(f)-I	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	Update pending	/	/	/	/
4(f)- II	Mercury in high pressure mercury vapour lamps used in projectors where an output $\geq 2000$ lumen ANSI is required	Feb. 24, 2027	/	/	/	/
4(f)-III	Mercury in high pressure sodium vapour lamps used for horticulture lighting	Feb. 24, 2027	/	/	/	/
4(f)-IV	Mercury in lamps emitting light in the ultraviolet spectrum	Feb. 24, 2027	/	/	/	/
4(g)	Mercury in handicraft luminescent electric discharge tubes for signage, ornamental or architectural purposes and professional lighting fixtures and light artworks. Mercury content is limited to: (a) Add 20 mg per electrode pair and 0.3 mg per 1 cm of tube length for outdoor or indoor applications at temperatures of 20°C or below. (However, the total shall be 80 mg or less.) (b) For all other indoor applications add 15 mg per electrode pair and 0.24 mg per 1 cm of tube length. (However, the total shall be 80 mg or less.)	Dec.31,2018 Deadline passed	/	/	/	/



N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
5(a)	Lead in glass of cathode ray tubes	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	Update pending	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
6(a)	Lead as an alloying element in steel for machining purposes and in galvanised steel containing up to 0,35 % lead by weight	June.30,2019 Deadline passed	Update pending	Update pending	Update pending	Update pending
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	Update pending				
6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	June.30,2019 Deadline passed	Update pending	Update pending	Update pending	Update pending
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	Update pending				
6(b)- II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	Update pending				
6(c)	Copper alloy containing up to 4 % lead by weight	Update pending	Update pending	Update pending	Update pending	Update pending
7(a)	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	Update pending	Update pending	Update pending	Update pending	Update pending
7(b)	Lead in solders for servers, storage and storage array systems, network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
7(c)- I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectric devices, or in a glass or ceramic matrix compound	Update pending	Update pending	Update pending	Update pending	Update pending
7(c)- II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	Update pending	Update pending	Update pending	Update pending	Update pending
7(c)-III	For spare parts for EEE placed on the market before January 1, 2013, lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Jan.1st,2013 Deadline passed				
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors which are part of integrated circuits or discrete semiconductors	July. 21, 2021 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
8(a)	For spare parts for EEE placed on the market before January 1, 2012, cadmium and its compounds in one shot pellet type thermal cut-offs	No deadline				
8(b)	Cadmium and its compounds in electrical contacts	Feb. 29, 2020 Deadline passed	Update pending	Update pending	Update pending	Update pending
8(b)-I	Cadmium and its compounds in electrical contacts used in: - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors) - AC switches rated at: - 6 A and more at 250 V AC and more, or - 12 A and more at 125 V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency $\geq$ 200 Hz.	Update pending				
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	Mar. 5, 2020 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
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	Mar. 5, 2021 Deadline passed				
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: —designed to operate fully or partly with electrical heater, having an average utilised power input $\geq$ 75 W at constant running conditions, —designed to fully operate with non-electrical heater.	Update pending				
9(a)-III	Hexavalent chromium up to 0.7 wt% contained as an antiseptic in the working fluid in a carbon steel sealed circuit of a gas-absorbing heat pump	Dec.31,2026 Deadline passed				
9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	July. 5, 2018 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
9(b)-1	Lead contained in the bearing housing and bearing sleeve of hermetic scroll compressors containing refrigerant with a rated power of 9 kW or less and used for heating, ventilation, air conditioning and refrigeration (HVACR) applications	July. 21, 2019 Deadline passed				
10						
11(a)	For spare parts for EEE placed on the market before September 24, 2010, lead used in C-press compliant pin connector systems	Sep. 24, 2010 Deadline passed				
11(b)	For spare parts for EEE placed on the market before January 1, 2013, lead used in other than C-press compliant pin connector systems	Jan.1st,2013 Deadline passed				
12	For spare parts for EEE placed on the market before September 24, 2010, lead as a coating material for the thermal conduction module C-ring	Sep. 24, 2010 Deadline passed				

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
13(a)	Lead in white glasses used for optical applications	Update pending	Update pending	Update pending	Update pending	Update pending
13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	July. 5, 2018 Deadline passed	Update pending	Update pending	Update pending	Update pending
13(b)- I	Cadmium and lead in filter glasses and glasses used for reflectance standards	Update pending				
13(b)- II	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	Update pending				
13(b)-III	Cadmium and lead in glazes used for reflectance standards	Update pending				
14	For spare parts for EEE placed on the market before January 1, 2011, 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	Jan.1st,2011 Deadline passed				
15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Feb. 29, 2020 Deadline passed	Update pending	Update pending	Update pending	Update pending
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: - a semiconductor technology node of 90 nm or larger; - a single die of 300 mm <sup>2</sup> or larger in any semiconductor technology node; - stacked die packages with die of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger.	Update pending				
16	Lead in straight tube incandescent bulbs with silicate coated valves	Sep. 1st, 2013 Deadline passed				
17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
18(a)	Including phosphors such as SMS ((SR,Ba) 2 MgSi 2 O 7 :Pb), lead as an activator in fluorescent powder (less than 1% by weight) in discharge lamps used as special lamps for diazo printing, lithography, insect trapping, photochemistry and curing processes.	Jan.1st,2011 Deadline passed				
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 (BaSi2O5:Pb)	Update pending	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024	Update pending
18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment	Update pending	July. 21, 2021 Deadline passed	July. 21, 2021 Deadline passed		
19	PbBiSn-Hg and PbInSn-Hg lead in a specific composition as the main amalgam, and PbSn-Hg lead as an auxiliary amalgam in highly compact energy-saving lamps (ESL)	June.1st,2011 Deadline passed				
20	Lead oxide in glass used to join the front and rear circuit boards of planar fluorescent lamps used in liquid crystal displays (LCDs)	June.1st,2011 Deadline passed				

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Feb. 29, 2020 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
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	July. 21, 2021 Deadline passed	/	/	/	/
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	July. 21, 2021 Deadline passed	/	/	/	/
21(c)	Lead in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	July. 21, 2021 Deadline passed	/	/	/	/
22						
23	For spare parts for EEE placed on the market before September 24, 2010, lead in finishes of fine pitch components other than connectors with a pitch of 0.65 mm and less	Sep.24.2010 Deadline passed	/	/	/	/
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Update pending	Update pending	Update pending	Update pending	July. 21, 2024
25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
26	Lead oxide in the glass envelope of a blacklight blue lamp	June. 1st, 2011 Deadline passed	/	/	/	/
27	Lead alloy as a solder for transducers used in high-power loudspeakers (operating for several hours at sound power levels of 125 dB SPL or more)	Sep.24.2010 Deadline passed	/	/	/	/
28						
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	Update pending	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	Update pending
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	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
31	Lead in soldering materials in mercury free flat fluorescent lamps (which, e.g. are used for liquid crystal displays, design or industrial lighting)	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Update pending	Update pending	July. 21, 2023 Deadline passed	Update pending	July. 21, 2024
33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
34	Lead in cermet-based trimmer potentiometer elements	Update pending	Update pending	Update pending	Update pending	Update pending
35						
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	July. 21, 2021 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024
38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	July. 21, 2016 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	July. 21, 2024

N o	Applications exempted from the restriction	Exemption deadline				
		Categories 1 to 7 and 10	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment	Category 11 Other electrical and/or electronic equipment
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm2 of display screen area)	Update pending	Update pending	Update pending	Update pending	Update pending
40	Cadmium in photoresist for analog optocouplers used in commercial audio equipment	Dec.31,2013 Deadline passed				
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	Mar. 31, 2022 Deadline passed	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024	Mar. 31, 2022 Deadline passed
42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: — with engine total displacement ≥ 15 litres; or — with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.					Update pending
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: (a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, “prolonged contact with human skin” means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.					July. 21, 2024
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 , installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users.					Update pending
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					April. 20, 2026

## Annex 5. Exemptions from Annex IV of the EU RoHS Directive

The following applications are excluded from the RoHS Directive as of September 6, 2023.

However, because RoHS Directive annexes are continuously being revised, it is necessary to confirm the latest information.

Refer to the European Commission website for the latest information.

[https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive\\_en](https://environment.ec.europa.eu/topics/waste-and-recycling/rohs-directive/implementation-rohs-directive_en)

No	Applications exempted from the restriction	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment
<b>Equipment utilising or detecting ionising radiation</b>				
1	Lead, cadmium and mercury in detectors for ionising radiation.	Update pending	July. 21, 2023 Deadline passed	Update pending
2	Lead bearings in X-ray tubes	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
3	Lead in electromagnetic radiation amplification devices: micro-channel plate and capillary plate.	Update pending	Update pending	Update pending
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.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	Update pending
5	Lead in shielding for ionising radiation.	Update pending	July. 21, 2023 Deadline passed	Update pending
6	Lead in X-ray test objects.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024
7	Lead stearate X-ray diffraction crystals.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024
8	Radioactive cadmium isotope source for portable X-ray fluorescence spectrometers.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024
<b>Sensors, detectors and electrodes</b>				
1a	Lead and cadmium in ion selective electrodes including glass of pH electrodes.	Update pending	Update pending	Update pending
1b	Lead anodes in electrochemical oxygen sensors.	Update pending	July. 21, 2023 Deadline passed	Update pending
1c	Lead, cadmium and mercury in infra-red light detectors.	Update pending	Update pending	Update pending
1d	Mercury in reference electrodes: low chloride mercury chloride, mercury sulphate and mercury oxide.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024
<b>Others</b>				
9	Cadmium in helium-cadmium lasers.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	Update pending
10	Lead and cadmium in atomic absorption spectroscopy lamps.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	Update pending
11	Lead in alloys as a superconductor and thermal conductor in MRI.	Update pending	July. 21, 2023 Deadline passed	July. 21, 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.	Update pending	June.30,2021 Deadline passed	Update pending
13	Lead in counterweights.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
14	Lead in single crystal piezoelectric materials for ultrasonic transducers.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
15	Lead in solders for bonding to ultrasonic transducers.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
16	Mercury in very high accuracy capacitance and loss measurement bridges and in high frequency RF switches and relays in monitoring and control instruments not exceeding 20mg of mercury per switch or relay.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024
17	Lead in solders in portable emergency defibrillators.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
18	Lead in solders of high performance infrared imaging modules to detect in the range 8-14 µm.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
19	Lead in Liquid crystal on silicon (LCoS) displays.	July. 21, 2021 Deadline passed	July. 21, 2023 Deadline passed	July. 21, 2024

N o	Applications exempted from the restriction	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment
20	Cadmium in X-ray measurement filters.	Update pending	July. 21, 2023 Deadline passed	July. 21, 2024
21	Cadmium in phosphor coatings in image intensifiers for X-ray images	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed
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.	June.30,2021 Deadline passed	June.30,2021 Deadline passed	June.30,2021 Deadline passed
23	Lead as an alloying element for bearings and wear surfaces in medical equipment exposed to ionising radiation.	June.30,2021 Deadline passed	June.30,2021 Deadline passed	/
24	Lead that enables a vacuum-tight connection between aluminum and iron in X-ray image intensifiers	Feb. 31, 2023 Deadline passed	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed
25	Lead in the surface coatings of pin connector systems requiring nonmagnetic connectors which are used durably at temperature below - 20 °C under normal operating and storage conditions.	June.30,2021 Deadline passed	June.30,2021 Deadline passed	June.30,2021 Deadline passed
26	Lead in - solders on printed circuit boards, - termination coatings of electrical and electronic components and coatings of printed circuit boards, - solders for connecting wires and cables, - solders connecting transducers and sensors, that are used durably at a temperature below -20 °C under normal operating and storage conditions. Lead in solders of electrical connections to temperature measurement sensors in devices which are designed to be used periodically at temperatures below - 150 °C.	Update pending	June.30,2021 Deadline passed	Update pending
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.	June.30,2027	June.30,2027	June.30,2027
28	Lead contained in solder used to mount a digital-array detectors for cadmium telluride and zinc cadmium telluride on PCBs	Dec.31,2017 Deadline passed	Dec.31,2017 Deadline passed	Dec.31,2017 Deadline passed
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 equipment potential bonding systems, in medical devices (category 8) and/or in industrial monitoring and control instruments.	Update pending	June.30,2021 Deadline passed	June.30,2021 Deadline passed
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.	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed
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.	Update pending	Update pending	July. 21, 2024
32	Lead contained in the solder of PCBs used in positron tomography (PET) detectors and data acquisition equipment integrated into nuclear magnetic resonance imaging (MRI) equipment	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed
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.	Dec.31,2020 Deadline passed	/	/

No	Applications exempted from the restriction	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment
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.	July. 21, 2021 Deadline passed	July. 21, 2021 Deadline passed	
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.			July. 21, 2024
36	Lead used in other than C-press compliant pin connector systems for industrial monitoring and control instruments.			Dec.31,2020 Deadline passed
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 range covering more than 1 order of magnitude (e.g. range between 0,1 mS/m and 5 mS/m) in laboratory applications for unknown concentrations; (b) measurements of solutions where an accuracy of +/- 1 % of the sample range and where high corrosion resistance of the electrode are required for any of the following: (i) solutions with an acidity < pH 1; (ii) solutions with an alkalinity > pH 13; (iii) corrosive solutions containing halogen gas; (c) measurements of conductivities above 100 mS/m that must be performed with portable instruments.	Dec.31,2025	Dec.31,2025	Dec.31,2025
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.	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed	Dec.31,2019 Deadline passed
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 3mm/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 149 mm <sup>2</sup> ; (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 mm <sup>2</sup> for detecting electrons or ions; (e) a multiplication factor larger than $4,0 \times 10^7$ .	Update pending	Update pending	Update pending
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.			Dec.31,2020 Deadline passed
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.		Mar. 31, 2022 Deadline passed	
42	Mercury in electric rotating connectors used in intravascular ultrasound imaging systems capable of high operating frequency (> 50 MHz) modes of operation.	June. 30, 2026		
43	Cadmium anodes in Hersch cells for oxygen sensors used in industrial monitoring and control instruments, where sensitivity below 10 ppm is required.			July. 15, 2023 Deadline passed
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 100kGy.	Mar. 31, 2027		Mar. 31, 2027



No	Applications exempted from the restriction	Medical monitoring and control equipment	Category 8 Medical equipment for in vitro diagnostic use	Category 9 Industrial monitoring and control equipment
45	Bis(2-Ethylhexyl) phthalate (DEHP) in ion-selective electrodes applied for point-of-care analysis of ionic substances present in human body fluids and/or dialysate	/	July. 21, 2028	/
46	Bis(2-Ethylhexyl) phthalate (DEHP) in plastic parts of Magnetic Resonance Imaging (MRI) detector coils	/	Update pending	/
47	Bis(2-ethylhexyl) phthalate (DEHP), Benzyl butyl phthalate (BBP), Dibutyl phthalate (DBP), and Diisobutyl phthalate (DIBP) in spare parts recovered from and used for the repair or refurbishment of medical devices, including in vitro diagnostic medical devices, 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	/	July. 21, 2028	/
48	Bismuth strontium calcium copper oxide (BSCCO) lead in superconducting cables and wires, and the lead in electrical connections to these wires	June. 30, 2027	June. 30, 2027	June. 30, 2027

## **Annex 6. Specially Controlled Substances (Packaging Materials)**

The following chemical substances are prohibited from inclusion in packaging materials. The concentration of these chemical substances should be below the standard value.

### **I. Prohibited substances**

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use
1	Specific Heavy Metals  Cd/Cd Compounds; CrVI Compounds; Pb/Pb Compounds; Hg/Hg Compounds	<ul style="list-style-type: none"> <li>•EU 94/62/EC Directive</li> <li>•US State Toxics in Packaging(TIP)</li> </ul>	All	<ul style="list-style-type: none"> <li>•Intentionally added</li> <li>•0.01% by weight of the sum of Cd,Hg,Pb &amp; CrVI in the material(100 ppm)</li> </ul>	Pigment,paint, Stabilizer for PVC
		Representative examples of relevant substance			
		Cadmium/Cadmium Compounds			CAS No.
		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			CAS No.
		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
		Lead sulfochromate yellow			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
		Potassium hydroxyoctaoxidizincatedichromate			11103-86-9
		Pentazine chromate octahydroxide			49663-84-5
		Zinc chromate			13530-65-9
		Other chromium VI compounds			—
		Lead/lead Compounds			CAS No.
		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 hydrocarbonate			1319-46-6
		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 hydrogen arsenate			7784-40-9
		Lead (II) phosphate			7446-27-7
		Lead sulfochromate yellow			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
		Lead azide			13424-46-9
		Lead dipicrate			6477-64-1
		Lead styphnate			1524544-0
		Other lead compounds			—
		Mercury /Mercury Compounds			CAS No.
		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
		Mercuric (II) oxide			21908-53-2
		Mercuric sulfide			1344-48-5
		Other mercury compounds			—

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use		
2	Phthalate esters (four types)  • Bis(2-ethylhexyl) phthalate (DEHP) • Dibutyl phthalate (DBP) • Butyl benzyl phthalate (BBP) • Diisobutyl phthalate (DIBP)	• Commission Delegated Directive (EU) 2015/863 amending RoHS Directive (EU) 2011/65	All	• Intentionally added • 0.1 weight % (1,000ppm) Total for one of four substances or total for multiple substances	Plasticizers, Dyes, Pigments, Paint, Ink, Adhesives, Lubricants		
						Substance name	CAS No.
						Bis(2-ethylhexyl) phthalate (DEHP)	117-81-7
						Dibutyl phthalate (DBP)	84-74-2
						Butyl benzyl phthalate (BBP)	85-68-7
Diisobutyl phthalate (DIBP)	84-69-5						
No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use		
3	Mineral oil aromatic hydrocarbons (MOAH) containing 1 to 7 aromatic rings	French domestic regulation on mineral oil	Packaging and printed materials	1% of ink by weight (10,000 ppm)	Paper materials such as user packaging or manuals and internal/external boxing		
						Standard values were changed for the following from Jan. 1, 2025. • Mineral oil aromatic hydrocarbons (MOAH) containing 1 to 7 aromatic rings: 0.1% of ink by weight (1,000 ppm) • Mineral oil aromatic hydrocarbons (MOAH) containing 3 to 7 aromatic rings: 0.0001% of ink by weight (1 ppm) *Because this substance is not applicable to chemSHERPA, the inclusion of the substance or whether it is below the standard value range shall be determined.	

## 2. Scheduled to be prohibited

No.	Substance/Category	Main laws and ordinances	Application(s)	Standard Value	Examples of Use
1	Mineral oil saturated hydrocarbons (MOSH) with 16 to 35 carbon atoms	French domestic regulation on mineral oil	Packaging and printed materials	0.1% of ink by weight (1,000 ppm)	Paper materials such as user packaging or manuals and internal/external boxing

<Form-1>

Date:

To Stanley Electric Co., Ltd.

**Certificate of the Non-Use of Prohibited Substances**

Company name: \_\_\_\_\_

Manager's name: \_\_\_\_\_



Our company (including our subsidiaries and affiliated companies) hereby certifies that the parts, materials, sub-materials, packaging materials, and so forth constituting all of the products we deliver to Stanley Electric Co., Ltd. and the Stanley Group (including affiliated companies, etc.) either directly or through a third party neither contain nor are coated with the prohibited substances specified by the Stanley Group that are listed below at or above the standard levels (except where exempt or where required pursuant to drawings, etc.).

Notes

**■ Stanley Product Chemical substance management Standard**

- 1) Automobile products
  - GADSL
  - Specially Controlled Substances (Automobile Products) (Annex 1)
  - Exemptions from Specially Controlled Substances (Automobile Products) (Annex 2)
- 2) Electric / electronic products
  - Specially Controlled Substances (Electric / Electronic Products) (Annex 3)
  - Exemptions from Annex III of the RoHS Directive (Annex 4)
  - Exemptions from Annex IV of the RoHS Directive (Annex 5)
- 3) Packaging materials
  - Specially Controlled Substances (Packaging Materials) (Annex 6)