



# Green Procurement Guidelines

## 12<sup>th</sup> Edition

Daikin Group  
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# Message

Global environmental issues including frequent and severe natural disasters due to the climate change, the depletion of resources and the ecosystem destruction are the greatest challenge we have to address as a global community. In particular, backed by the United Nations Framework Convention on Climate Change (UNFCCC) Paris Agreement, 124 countries and 1 region including Japan have pledged to achieve carbon neutrality by 2050, and the world is accelerating toward decarbonization. Expectations for companies are increasing, and companies are required to aim for the realization of a sustainable society.

The Daikin Group places environmental conservation as a top management priority and has been actively implementing measures. In 2018, Daikin formulated Environmental Vision 2050. Reducing to net zero the greenhouse gas emissions caused by our business activities and our products and services is one of the aims of the Vision, believing that providing products to the market with less environmental impact is our responsibility as a manufacturer.

For this reason, we must strive to reduce the environmental impact of our products at all stages of the lifecycle, including materials and parts procurement, processing and assembling, manufacturing, transportation, use and disposal. We cannot accomplish this alone: the cooperation of our suppliers is indispensable.

When looking at global trends, in addition to efforts for decarbonization, we are facing ever-increasing requirements for environmentally conscious procurements concerning hazardous substances and product design.

By combining with activities linked to protection of bio-diversity and conservation of water resources, we hope to proceed in close cooperation with our business partners in undertaking even greater measures for the environment.

All of us at Daikin deeply appreciate the kind support you have given us and ask for your continued support and cooperation in the future for achieving our mission.

Katsuyuki Sawai  
Executive Officer  
Officer in Charge of Environment

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# “Basic Environmental Policy of the Daikin Group” and “Green Procurement”

Daikin Group instituted the Basic Environmental Policy of Daikin Group along with the Daikin Group Philosophy in August 2002.

## Basic Environmental Policy of the Daikin Group

### ■ Environmental Philosophy

#### Be a Company that Leads in Applying Environmentally Friendly Practice

As we continue developing our business operations in various fields, it is our mission to proactively develop initiatives to respond to environmental issues. Incorporating environmental initiatives throughout our management must be a priority for us.

In all aspects of our business operations, including product development, manufacturing and sales, we need to formulate initiatives that sustain and improve the environment. Meanwhile, we need to promote the development of new products and the innovation of technologies that will lead to a more environmentally healthy world.

Under the precept “environmental response is an important management resource,” we must integrate environmental initiatives into our corporate management since they can lead to business expansion, improved business performance, and further enhancement of our credibility with outside parties. We intend to continue being a leading company in the practice of “environmental management,” thus contributing to a healthier global environment as a good citizen of the earth.

### ■ Action Guidelines

1. Ensure that all members of the Group deepen our understanding of environmental issues and take responsibility for the impact our actions have on society in general.
2. Establish, promote, and continuously improve an Environmental Management System to actively and effectively implement Environmental Management as a Group.
3. Develop and implement environmental initiatives in all aspects of our business operations, including product development, production, sales distribution, services, and recycling.  
In particular, be a leader in society by developing products, technologies, and business opportunities that contribute to sustaining and improving our environment.
4. Implement environmental initiatives that are globally consistent as well as promote initiatives that respond to the particular circumstances of each country and region. Furthermore, actively promote cooperation and alliances with related companies, external organizations, and institutions.
5. Disclose environmentally related information in a truthful and fair manner. Listen to the views of people both inside and outside the company to continuously improve our environmental preservation efforts.

## Aim of Green Procurement

In order to minimize environmental impact throughout the lifecycle of products, we must develop products with little environmental impact during the production process, during the use of the product, and at the time of disposal, as well as procure parts and materials with little environment impact, so called “green procurement”

Furthermore, green procurement is linked to risk management by ensuring that Daikin Group products do not contain hazardous chemical substances.

## Green Procurement

To minimize our environmental impact, materials, parts, and other goods will be procured with priority given to suppliers demonstrating excellent environmental performance.

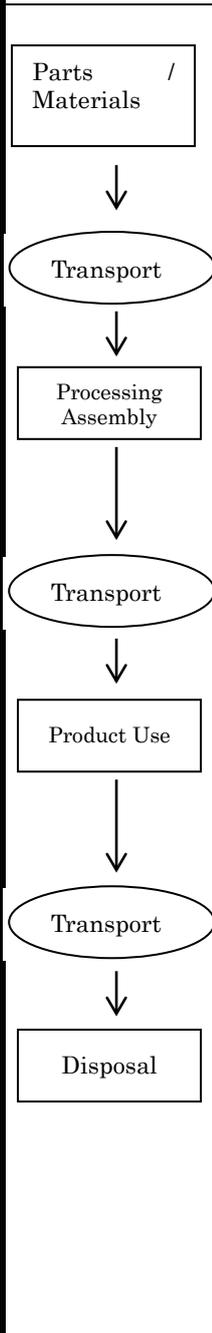


## Subject to Green Procurement

**Finished Products**, materials (raw materials, supplementary materials), and parts (purchased parts, parts from outside suppliers) procured for use in production activities of Daikin Group are subject to Green Procurement.

In order to create products with low environmental impact, issues related to the lifecycle of products, including parts and materials procurement, processing and assembly, transport, product use, and disposal are listed below. We are managing the items dealing with green procurement issues.

■ **Issues related to creating products with little environmental impact**

Lifecycle	Daikin Design Issues	Daikin Manufacturing and Other Issues	Green Procurement Issues (Business Partners)
	<p>Select parts and materials with low environmental impact</p> <p>Substitution of harmful substances Easily recyclable parts and materials Use of recycled materials Selection of parts and materials with high-energy efficiency</p> <p>Design for less packaging In order to reduce the amount of waste. Modal shift*</p> <p>Design for energy conservation products Products whose refrigerant is easily recoverable and does not leak</p> <p>Design for easily recyclable products</p> <p>Shorten disassembly time Reduce number of parts List resinous materials</p>	<ul style="list-style-type: none"> <li>• Use reusable parts, etc.</li> <li>• Reduce amount of energy used</li> <li>• Reduce amount of waste discharged</li> <li>• Management of chemical substances</li> <li>• Pollution prevention (air, water, noise, etc.)</li> <li>• Reduce environmental impact during transport</li> <li>• Promote modal shift</li> <li>• Establish recycling system</li> <li>• Fluorocarbon recovery / disposal</li> </ul>	<ul style="list-style-type: none"> <li>• Procure parts and materials which do not include harmful chemical substances</li> <li>• Reduce packaging materials (or no packaging) Substitution of wooden pallet Use of returnable boxes</li> <li>• Reduce environmental impact during transport Modal shift</li> <li>• Reduce amount of energy used</li> <li>• Reduce amount of waste discharged</li> <li>• Management system for chemical substances</li> <li>• Pollution prevention (air, water, noise, etc.)</li> <li>• Protection of bio-diversity</li> <li>• Conservation of water resources</li> <li>• Design of parts and materials which meet requirements of Daikin eco-friendly design</li> </ul>

- Modal shift is the shifting of transportation from trucks to large-scale cargo transport facilities such as railway and shipping in truck line transportation.

## 2. Basic Concept of Green Procurement

- Daikin gives priority to suppliers who actively undertake initiatives implementing our requests.

In particular, adherence to Daikin requests related to chemical substances is essential.

Control levels of chemical substances are defined below.

Control Levels	Examples of Substances
Prohibited (30 substance groups)	Cadmium, Chromium Hexavalent, Lead, Mercury, TBTs, PBB, PBDE, PCBs, PCTs, Polychlorinated Naphthalene, F-gas, Hexabromocyclododecane(HBCD), Specified PFOAs, DEHP, BBP, DBP, DIBP *1) PAHs, Applicable substances of the EU Biocidal Products Regulation, TCEP, TDCPP 2-methoxyethanol etc.
Reduced (2 substances)	Vinyl Chloride , HCFC
Managed	Applicable substances listed in IEC62474, REACH Regulation SVHCs

\*1) From January 2019, DEHP, BBP, DBP, DIBP will be sequentially prohibited in parts targeted under laws and regulations.

※ Refer to the “Specified Chemical Substance List” for detail.

- For the purpose of reduction of green house gases in collaboration with our suppliers, we request them to provide their CO2 equivalent emission amount.
- Through resource conservation by the waste volume reduction and prevention of global warming activity, we promote the Green procurement activity which leads to the biological diversity protection and water resource.

## 3. Green Procurement Requirements

### 1) Essential conditions for suppliers' management

#### ● Environmental Management System

We request our suppliers to either structure environmental management system to obtain ISO14001 certification, or acquire third-party certification for their environmental management system.

(Depending on the kinds of products and the quantities to be dealt with, it may become voluntary to obtain the certification.)

From the perspective of supply chain management, Daikin will request the suppliers to implement green purchase as well as to construct chemical substance management system and its implementation.

We will request our second and third suppliers to promote environmental information transmission

#### ● Compliance

All our suppliers must comply with relevant laws and regulations. They must not have any record of having been penalized for any violations of laws in the past two years.

- Promotion of voluntary activities of improving environment energy conservation, waste reduction, and improvement of transport means.

- Provision of information**

When Daikin makes a request, the suppliers shall provide the necessary information regarding the environment. In case the provided information requires secrecy, please inform Daikin of it beforehand so that Daikin can properly handle the information.

## 2) Essential conditions for products

- Chemical substance management**

1. Restriction on use of chemical substances

Requirements for products to be delivered to Daikin:

As a matter of principle, parts and raw materials delivered to Daikin must be free from substances that are listed as prohibited on the “Specified Chemical Substance List.”

In case there is not the lawful demand in the country or district where to be delivered, detailed responses will be discussed individually.

In addition, in case the finished product (for sale) obviously does not contain the substances, and the handling of substances essential in the manufacturing process shall be decided after prior consultation between the Division and the CSR and Global Environment Center.

2. Cooperation to investigation of chemical substances

When regulations, such as REACH (The Regulation, Evaluation & Authorization of Chemicals), require, Daikin will make a request for the suppliers to submit information on their products regarding contained chemical substances, their contained parts and the amount, purposes of their containment, and harmful effects of the substances.

3. Voluntary reduction of substances ranked to reduce, and the implementation of adequate management procedures of them

- Packaging materials**

Reduction of packaging materials for the items to be delivered to Daikin, Use of circulate boxes, Use of substitutions for One-way wooden pallets, etc.

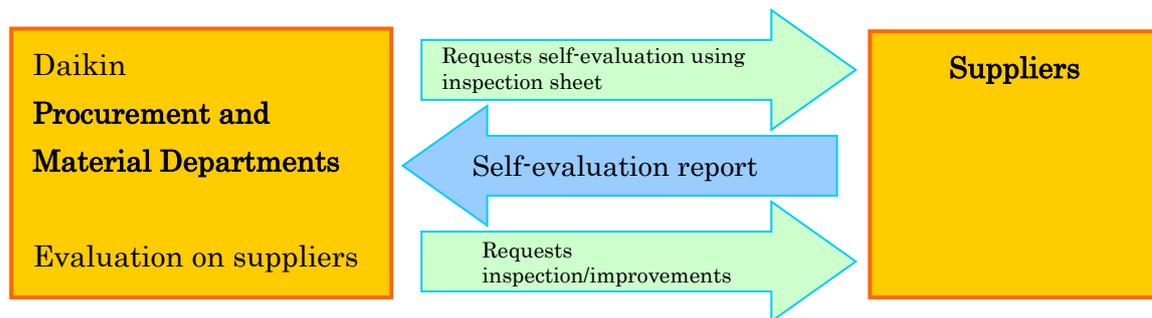
- When designing work is involved, eco-friendly design must be employed.

## 4. Use of This Guideline

1) Procurement and Material Departments of Daikin request their suppliers to implement self-evaluation by using an inspection sheet supplied by Daikin. Daikin annually collects and evaluates the sheets.

Based upon the evaluation results, Daikin may ask the suppliers to make certain improvements on their environmental preservation activities.

2) Daikin may visit our suppliers and conduct on-site inspections and meetings with them in regard to the current status of their environmental preservation activities.



**Down load “Green Procurement Inspection List” at URL:**

<http://www.daikin.com/environment/supplier/guideline.html>

If there is a necessity to have a respective requirements specification for an item other than this guideline, Daikin will elaborate the specification on a separated purchasing specification sheet.

## 5. Specified Chemical Substance List

The table below shows thirty-three substances and SVHC in REACH that will be added accordingly out of the chemical substances contained in products, and they are managed according to the following three management classifications:

**【Prohibited】** Use must be immediately prohibited.

**【Reduced】** Use must be reduced.

**【Managed】** Content must be determined and managed.

### ■ Specified Chemical Substance List

R:Law regulation I:Information

No	Substance Name	CAS No. (Representative)	Control Levels	Criteria	Threshold Level
1	Cadmium and Cadmium Compounds (*16, *17, *18)	7440-43-9	<b>Prohibited</b>	R	0.01wt% of total cadmium in homogeneous materials  0.001%by weight of battery
2	Chromium VI Compounds (*18)	10588-01-9		R	0.1wt% of total ChromiumVI in homogeneous materials
3	Lead and Lead Compounds (*16, *17, *18)	7439-92-1		R	0.1wt% of total lead in homogeneous materials 0.004wt% of lead in battery
4	Mercury and Mercury Compounds (*16, *17, *18)	7439-97-6		R	Intentionally added or 0.1wt% of total mercury in homogeneous material, 0.0001 mass% of battery
5	Tributyl_Tin Oxide (TBTO) (*24)	56-35-9		R	Intentionally added or 0.1wt% of the product
6	Tributyl Tins (TBTs) compounds	2155-70-6		R	Intentionally added or 0.1wt% of tin in the part
	Triphenyl Tins (TPTs) compounds (*1, *24)	1803-12-9			
	Dibutyltin compounds (DBTs) Diocetyl tin compounds(DOTs) (*1)	683-18-8 26401-97-8			
7	Polybrominated Biphenyls (PBBs)	—		R	0.1wt% in homogeneous material
8	Polybrominated Diphenylethers ( PBDEs ) Deca-Bromodiphenylether (Deca-BDE) (*20, *24)	—		R	Intentionally added(*20)
9	Polychlorinated Biphenyls (PCBs) (*24)	1336-36-3		R	Intentionally added
10	Polychlorinated Terphenyls(PCTs) (*16)	61788-33-8		R	0.005wt% in material
11	Polychlorinated naphthalenes (Cl=>1) (*24)	70776-03-3		R	Intentionally added
12	Shortchain Chlorinated Paraffins (C10-C13) (*16)	85535-84-8		R	Intentionally added or 0.1 wt% of article (*21)
13	Perfluorooctane sulfonate (PFOSs) (*2, *24)	1763-23-1		R	Intentionally added or 0.1 wt% of the part (as the sum of PFOS)
14	Fluorinated greenhouse gases (HFC,PFC,SF6) (*3)	—		R	Intentionally added
15	Asbestos (*16)	77536-66-4		R	Intentionally added
16	Azo dyes and pigments forming certain amines (*4, *16)	92-67-1		R	0.003wt% of the finished textile/leather product
17	Ozone Depleting Substances ( other than HCFCs) (*5)	—	R	Intentionally added	
18	Radioactive Substances	7440-61-1	R	Intentionally added	

19	Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl) (*16, *24)	3846-71-7		R	Intentionally added or 0.1 mass% of article
20	Dimethyl fumarate (DMF) (*6, *16)	624-49-7		R	0.0001wt% of the part
21	Hexabromocyclododecane (HBCD) and all major diastereoisomers (*7, *24)	25637-99-4		R	Intentionally added or 0.01 wt% of article
22	Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA(*8)	335-67-1		R	0.0000025 mass% of PFOA including its salts in article or mixture 0.0001 mass% of one or a combination of PFOA-related substances, in article or mixture (*22)
23	Bis (2-ethylhexyl) phthalate (DEHP) (*9, *16, *23)	117-81-7		R	0.1wt% in homogeneous material
24	Butyl benzyl phthalate (BBP) (*9 *16, *23)	85-68-7		R	0.1wt% in homogeneous material
25	Dibutyl phthalate (DBP) (*9,*16, *23)	84-74-2		R	0.1wt% in homogeneous material
26	Diisobutyl phthalate (DIBP) (*9, *16, *23)	84-69-5		R	0.1wt% in homogeneous material
27	Polycyclic aromatic hydrocarbons: PAHs (*10, *16)	50-32-8		R	0.0001 mass% of the plastic or rubber part
28	Tris (1,3-dichloro-2-propyl) phosphate (TDCPP), Tris (2-chloroethyl) phosphate (TCEP) *15	13674-87-8, 115-96-8		R	0.1wt% of any product component
29	2-methoxyethanol	109-86-4		R	Intentionally added
30	Applicable substances of EU Biocidal Products Regulation *11)			R	Intentionally added
31	Polyvinyl Chloride (PVC) *12)	9002-86-2	<b>Reduced</b>	I	Parts:0.1wt% Chemical product:10ppm Coating parts 1 μg/m <sup>2</sup>
32	Ozone Depleting Substances ( only HCFCs)	—		R	Intentionally added
33	EU REACH regulation (SVHC) group (Prohibited material specified by this guideline is excluded) (*14)	—	<b>Managed</b>	R	0.1wt% of the product (*25)
34	Applicable substances listed in IEC62474 (Prohibited material specified by this guideline is excluded) (*13)	—		—	—

- \*1) Use of TBTs and TPTs is prohibited in the EU market. Tin threshold Level is less than 0.1  
 Use of DBTs is prohibited in the EU market. Tin threshold Level is less than 0.1  
 Use of DOTs is prohibited in the EU market. However, the only applications that are prohibited are for "Commodities that touch the skin" and "Two-component normal temperature silicone modules." Tin threshold Level is less than 0.1.
- \*2) PFOSs were added to Appendix B by POPs agreement at COP4 in May 2009.  
 The Japanese "Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances" was revised in October 2009, and PFOSs were added to Class I Specified Chemical Substances. Use is prohibited after April 2010.  
 PFOSs used in ①production of etching resist, ②production of the resist for semiconductors, ③production for films for professional uses are excluded from the prohibition.
- \*3) As for prohibited uses, please refer to F Gas Regulation Annex III, PLACING ON THE MARKET PROHIBITIONS REFERRED TO IN ARTICLE 11(I).  
<https://eur-lex.europa.eu/legal-content/EN/TXT/PDF/?uri=CELEX:32014R0517>
- \*4) Applied to use in which the human body is in contact for a long time with the azo colorants and colors which form specific amine as defined in 76/769/EEC (example: outer shell of the remote control unit ).
- \*5) Use of HCFC in the production of foams and as refrigerants for Japan and EU models is prohibited.
- \*6) By an EU Commission decision (2009/251/EC) on 17 March 2009, products containing Dimethylfumarate (DMF) shall not be placed on the market after 1 May 2009. DMF had been used as a fungicide for packing and leather goods, etc. The allowable concentration is 0.1 mg/kg or less.
- \*7) HBCDs were added to Annex A (Abolition) of the Stockholm Convention on Persistent Organic Pollutants (POPs Convention) at the Sixth Conference of the Parties in May 2013.  
 Prohibition in the Daikin Group was started from 26 November 2014, except where the national implementation of the Stockholm convention results in a deviation of the implementation timing.
- \*8) After 1 June 2014, manufacturing, importing, exporting and selling of consumer products that contain PFOAs were prohibited in Norway. (Some of the applications were prohibited after 1 January 2016.)  
 The implementation date of REACH regulation is on 4 July 2020, but the prohibition for the production of regulated parts by REACH in the Daikin group will start from 1st January 2020.
- \*9) Four phthalate substances were added to RoHS restricted substances by an EU amendment directive ((EU) 2015/863) on 31 March 2015. The implementation date of this EU directive is on 22 July 2019, but the prohibition for the production of regulated parts by the law in the Daikin group had started from 1st January 2019. The production of non-regulated parts by the law will start from 1st January 2020 in a matter of principle, but individual discussion will be held in non-applicable case.
- \*10) Rubber or plastic components that come into direct contact as well as prolonged or short-term repetitive contact with the human skin or the oral cavity shall not contain more than 1 mg/kg (0.0001 % by weight of this component) for any of the PAHs.
- \*11) After 1 March 2017, use of biocidal active substances for EEA (EU, Republic of Iceland, Norway and Liechtenstein) products are prohibited when they have not been approved or when an application for approval was not submitted by 1 September 2016 in EU depending on the intended use of substances (referred as Product Type).  
 Applicable substances of EU— Biocidal Product Regulation are substances or mixtures having biocidal (inhibition and detoxification) activities (=substances or mixtures with antibacterial or antifungal function, etc.) against harmful organisms (bacteria, etc.) by other than physical or mechanical action, as defined by EU - Biocidal Product Regulation(528/2012). Hereafter referred to as "Biocidal active substances". The definition is identical in UK for its equivalent regulation GB— BPR.
- \*12) Some of PVC whose substitution is available is subjected to reduction.
- \*13) List of substances reported in IEC62474 (Standard name: International standard for information transmission between suppliers regarding chemical substances and constituent materials contained in products in the electrical and electronic industry) prepared by the International Electrotechnical Commission (IEC) refers to the substances to be reported listed in the Declarable Substance List (DSL).  
 Substances (criteria 1, "Currently Regulated") which included in electrical and electronic products is prohibited / restricted / reported / labeled and the issue date of the regulations is specified by the regulations of IEC member countries are listed. Reference: <http://std.iec.ch/iec62474>
- \*14) All SVHC that will be added in the future shall be managed. A postscript is not added.

- \*15) The District of Columbia has enacted requirements that prohibit the use of Tris (1,3-dichloro-2-propyl) phosphate (TDCPP) and Tris (2-chloroethyl) phosphate (TCEP), unless the chemical concentration is less than or equal to 0.1% by weight in any product component, that go into effect after January 1, 2019. Mainly these substances are used as flame retardant and additive of synthetic resins, fiber processing agent.
- \*16) EU hazardous substance regulation (76/769/EEC) has been replaced by Annex XVII to EU REACH regulation (1907/2006/EC) on 1 June 2009. Follow conditions of restrictions for each usage.
- \*17) The battery that exceeds the following allowable value cannot be placed on the regulated market in accordance with EU Batteries Directive (2006/66/EC) and the amending directive (2013/56/EU), Korea Quality Management and Manufactured Product Safety Management Law (Battery Regulation), China Limitation of mercury, cadmium and lead contents for alkaline and non-alkaline zinc manganese dioxide batteries GB 24427-2009.
  - Mercury: Intentionally added or 0.0001 mass% of battery  
(For button batteries, currently 2wt% or less and after 1<sup>st</sup> October 2015, 0.0005wt% or less)
  - Cadmium:
    - EU Batteries Directive (2006/66/EC) -> 0.002wt% or less
    - Korea Quality Management and Manufactured Product Safety Management Law (Battery Regulation) -> 0.01wt% of cadmium in homogeneous materials  
0.01wt% of cadmium in homogeneous material
  - Lead: 0.004 mass% of battery
- \*18)
  - The sum of concentration levels of lead, cadmium, mercury and hexavalent chromium present in packaging or packaging components shall not exceed 100ppm by weight.
  - The concentration level of heavy metals has to be less than 100ppm for each packaging component that can be manually separated.
  - The packaging components are considered to be the cardboard, wood parts, staples, straps, the EPS, etc.
- \*19) In case of the threshold level for specified chemical substances is “Intentionally added and any specified threshold”, this prohibits any case except for the situation with “Non-intentionally added and containing less than threshold”.
- \*20) The District of Columbia has enacted requirements that prohibit the use of PBDEs since 2014 [cf. D.C. Law 18-336 for Washington D.C.]. Although concentration is more than 0.1% by weight in any product component is prohibited [cf. EU RoHS], in case chemical concentration as impurities is equal or less than 0.1% by weight in any product components, individual discussion must be taken before supply
- \*21) In case the reporting use is "woven fabric or other coated material", comply with the following thresholds. :Intentional addition, 0.1 wt% in material
- \*22) In case the reporting use is "textiles and photographic coatings and other coated products for film or paper or printing originals", comply with the following thresholds.
  - For consumers: 1 µg / m<sup>2</sup> (as a total of PFOA) [Reporting level: Materials]
  - All products except consumer products: 0.1% of parts (as a total of PFOA) [Reporting level: Materials]
 Excluded uses are in accordance with the Annex of the European Commission Delegation Regulations (EU) 2020/784.
- \*23) In accordance with REACH regulation, the threshold is 0.1wt% in material of an article (as the sum of 4 phthalates)
- \*24) Japanese “Law Concerning the Examination and Regulation of Manufacture, etc of Chemical Substances”. As for class1 specified chemical substances, intentional use is prohibited.
- \*25) If the weight percentage of the substance compared to the mass of the each article is more than 0.1wt%, it exceeds the threshold.

•CAS No. : Chemical Abstracts Service No.

**Laws, regulations and standards taken into consideration at the time when chemical substances were specified**

- The Law Concerning the Examination and Regulation of Manufacture, etc. of Chemical Substances in Japan
- RoHS direction (2011/65/EC)
- REACH Regulation (1907/2006/EC)
- Stockholm Convention on Persistent Organic Pollutants (POPs)
- EU-POPs Regulation (2019/1021)
- EU-F-gas Regulation (842/2006/EC)
- EU Battery Directive (2006/66/EC)
- Montreal Protocol
- EU-ODS Regulation (2037/2000/EC)
- EU Commission Decision (2009/251/EC)
- European Parliament and Council Directive 94/62/EC of 20 December 1994 on packaging and packaging waste (94/62/EC)
- Prohibition on Certain Hazardous Substances in Consumer Products in Norway
- Norway Product Regulations FOR-2004-06-01-922
- EU-Biocidal Products Regulation (528/2012,334/ 2014)
- Carcinogenic Flame Retardant Prohibition Amendment Act of 2016 (D.C.Law 21-108)
- Korea Quality Management and Manufactured Product Safety Management Law (Battery Regulation)
- Chinese Standard GB 24427- 2009
- Act of Reduction of Risks in Treatment of Specified Hazardous Substances, Preparations, and Articles in Switzerland (ChemRRV) Swiss Ordinance 814.81
- (EC) No. 1005/2009
- Article 611 of U.S. Clean Air Act 1990
- [Japan] Law Concerning Prevention from Radiation Hazards due to Radio-Isotopes, etc.; [EU] Directive 2013/59/Euratom
- PAH: Commission Regulation (EU) No 1272/2013
- (Canada)Prohibition of Certain Toxic Substances Regulations SOR/2012-285 and its amendment

## ■ Exempted substances

Application exempted by RoHS directive. There may be some other exemptions because no substitutions are available due to technical difficulties at present. Exemptions for application of RoHS Directive for category 8, 9, 10 and 11 is omitted here. Concrete exemption examples (according to RoHS directive) are listed.

Exemptions for application of RoHS Directive		Dates of applicability	
1(a)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes < 30 W: not exceeding (per burner) 2.5 mg	*1)	
1(b)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 30 W and < 50 W: not exceeding (per burner) 3.5 mg		
1(c)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 50 W and < 150 W: not exceeding (per burner) 5 mg		
1(d)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes ≥ 150 W: not exceeding (per burner) 15 mg		
1(e)	Mercury in single capped (compact) fluorescent lamps for general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm: not exceeding (per burner) 7 mg		
1(f)	Mercury in single capped (compact) fluorescent lamps for special purposes: not exceeding (per burner) 5 mg		
1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3,5 mg		
2(a)(1)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2) for general lighting purposes not exceeding (per lamp): 4 mg		
2(a)(2)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5) for general lighting purposes not exceeding (per lamp): 3 mg		
2(a)(3)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8) for general lighting purposes not exceeding (per lamp): 3.5 mg		
2(a)(4)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12) for general lighting purposes not exceeding (per lamp): 3.5 mg		
2(a)(5)	Mercury in double-capped linear fluorescent lamps Tri-band phosphor with long lifetime (≥ 25 000 h) for general lighting purposes not exceeding (per lamp): 5 mg		
2(b)(3)	Mercury in other fluorescent lamps Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) not exceeding (per lamp): 15 mg		
2(b)(4)	Mercury in other fluorescent lamps for other general lighting and special purposes (e.g. induction lamps) not exceeding (per lamp): 15 mg		
3(a)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Short length (≤ 500 mm) not exceeding (per lamp): 3.5 mg		
3(b)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Medium length (> 500 mm and ≤ 1 500 mm) not exceeding (per lamp): 5 mg		
3(c)	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes Long length (> 1 500 mm) not exceeding (per lamp): 13 mg		
4(a)	Mercury in other low pressure discharge lamps not exceeding (per lamp): 15 mg		
4(b)-I	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60, P ≤ 155 W: 30 mg		
4(b)-II	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index Ra > 60, 155 W < P ≤ 405 W: 40 mg		
4(b)-III	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes with improved colour rendering index Ra > 60, P > 405 W: 40 mg		*1)

4(c)-I	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P \leq 155$ W not exceeding (per burner):25 mg	*1)
4(c)-II	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $155$ W < $P \leq 405$ W not exceeding (per burner):30 mg	
4(c)-III	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes $P > 405$ W not exceeding (per burner):40 mg	
4(e)	Mercury in metal halide lamps (MH)	
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	
5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	
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	*1)
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	*1)
6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	*1)
6(c)	Copper alloy containing up to 4 % lead by weight	*1)
7(a)	Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead)	*1)
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	*1)
7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	*1)
7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete semiconductors	2021-07-21
8(b)-I	Cadmium and its compounds in electrical contacts used in: <ul style="list-style-type: none"> <li>— circuit breakers,</li> <li>— thermal sensing controls,</li> <li>— thermal motor protectors (excluding hermetic thermal motor protectors),</li> <li>— AC switches rated at: <ul style="list-style-type: none"> <li>— 6 A and more at 250 V AC and more, or</li> <li>— 12 A and more at 125 V AC and more,</li> <li>— DC switches rated at 20 A and more at 18 V DC and more, and</li> <li>— switches for use at voltage supply frequency <math>\geq 200</math> Hz.</li> </ul> </li> </ul>	*1)
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	2021-03-05
9(a)-(II)	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: <ul style="list-style-type: none"> <li>- designed to operate fully or partly with electrical heater, having an average utilised power input <math>\geq 75</math> W at constant running conditions,</li> <li>- designed to fully operate with non-electrical heater.</li> </ul>	2021-07-21
13(a)	Lead in white glasses used for optical applications	*1)
13(b)-(I)	Lead in ion coloured optical filter glass types	*1)
13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex III	*1)
13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	*1)
15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: <ul style="list-style-type: none"> <li>— a semiconductor technology node of 90 nm or larger;</li> <li>— a single die of 300 mm<sup>2</sup> or larger in any semiconductor technology node;</li> <li>— stacked die packages with die of 300 mm<sup>2</sup> or larger, or silicon interposers of 300 mm<sup>2</sup> or larger.</li> </ul>	*1)
18(b)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi 2 O 5 :Pb)	*1)

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	2021-07-21
21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	2021-07-21
21(c)	Lead in printing inks for the application of enamels on other than borosilicate glasses	2021-07-21
24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	*1)
29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC ( 1 )	*1)
32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	*1)
34	Lead in cermet-based trimmer potentiometer elements	*1)
37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	2021-07-21
39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications	*1)
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.	2022-03-21

[Note]

\*1) The requests for extension of the existing exemptions have been submitted by related industries, which are under review by the EU authorities. Please refer to the latest updates relating to renewal requests for RoHS exemption by official homepage of the European Commission.

URL: [https://ec.europa.eu/environment/waste/rohs\\_eee/adaptation\\_en.htm](https://ec.europa.eu/environment/waste/rohs_eee/adaptation_en.htm)

The expired numbers are deleted when this guideline revised.

Application exempted by PWD directive

- Requires to reduce total weight of heavy metals (lead, cadmium, mercury, and hexavalent chromium) in each material constructing the packaging materials to less than 100 ppm by weight.

## Past revision history

Version	Revision date	Main revision details
No. 1	April 1999	First edition publication
No. 2	September 2000	Message by the Officer in Charge and Specified Chemical Substance List were revised.
No. 3	January 2003	Message by the Officer in Charge was revised. ISO14001 certification was requested.
No. 4	April 2007	Specified Chemical Substance List was revised.
No. 5	October 2009	Message by the Officer in Charge and Specified Chemical Substance List were revised.
No. 6	January 2012	Specified Chemical Substance List was revised.
No. 7	February 2014	Specified Chemical Substance List was revised.
No. 8	March 2015	Specified Chemical Substance List was revised. Exemption items were added
No. 9	January 2017	Message by the Officer in Charge and Specified Chemical Substance List were revised. Exemption items were added.
No. 10	March 2019	Message by the Officer in Charge and Specified Chemical Substance List were revised. Exemption items were revised.
No. 11	June 2020	3.2) Essential conditions for products, Specified Chemical Substance List and Exemption items were revised.
No. 12	April 2021	Message by the Officer in Charge and Specified Chemical Substance List were revised. Exemption items were added.

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For factories outside Japan, please take contact with the local purchase department.

### **Green Procurement Guidelines**

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This Guideline will be revised as necessary in accordance with company circumstances or changes in applicable laws.