



Control Standard of  
Chemical Substances in Products  
Rev.002

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**ROHM Co., Ltd.**

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## **1. Objective**

Using this guideline, ROHM group (hereinafter referred to as ROHM) will make clear the management of substances of environmental concern in the parts and materials they supply in order to prevent prohibited substances from mixing into ROHM products, and to reduce any harmful effects on natural ecosystems in compliance with relevant laws and ordinances.

## **2. Scope**

Targets are the parts<sup>※1</sup>, materials, packaging components<sup>※2</sup> and sub-materials<sup>※3</sup> that are procured by ROHM Group (Hereinafter referred to as "Materials").

※1: Parts that are partly or wholly outsourced to manufacture are also covered.

※2: Applies to packaging materials used for transporting and protecting ROHM products.

Packaging materials used by the supplier for transportation and protection are not covered.

However, it is subject to direct contact with the target article and if the specified prohibited substance is transferred or mixed.

※3: Production equipment and jigs and tools are excluded.

## **3. Definition of Terms**

### **3.1 Chemical Substance**

A chemical element or compound that either exists in nature or is obtained through a manufacturing process.

### **3.2 Mixture**

A mixture intentionally comprising two or more chemical substances.

Examples are paints, inks, alloy ingot, solder, resin pellets, etc.

### **3.3 Chemicals**

3.1 Chemical substance and/or mixture.

### **3.4 Article**

An item of specific shape, appearance or design created during manufacture which substantially determines functions in final use rather than functions provided by its chemical composition.

### **3.5 Substances of environmental concern**

A general term of substances considered to have a remarkable environmental impact in the health hazard to a human body and the global environment.

### **3.6 Environment-related Substances to be Controlled**

Substances judged by ROHM considered to be had a remarkable environmental impact in the health hazard to a human body and the global environment.

#### **3.6.1 Prohibited Substances**

Restrict of use by laws and regulations or customer requirement in Environment-related Substances to be Controlled and prohibit inclusion in parts and materials procured by ROHM.

#### **3.6.2 Controlled Substances**

Manage and promote the substitution in Environment-related Substances to be Controlled by understanding actual conditions of use from laws and regulations, customer requirements and industry trends etc.

### 3.7 Homogeneous material

Homogeneous material means one material of uniform composition throughout or a material, consisting of a combination of materials that cannot be disjointed or separated into different materials by mechanical actions. (Ex. Plastic, ceramics, glass, metal, resin, coating agent, plating layer, painting / painting layer etc.)

### 3.8 Threshold level

Threshold level is defined as the maximum rate of content or content when a prohibited chemical substance is present in parts and materials.

### 3.9 Intentionally added

“Intentionally added” means a situation where a substance is contained in the materials because of deliberate addition filling, blending or adhesion in order to provide a specific characteristic, appearance, property, attribute or quality.

### 3.10 Impurity

Impurities are substances that are contained in natural material and cannot be removed by the current industrial technologies in the refining process.

### 3.11 IEC62321

Analysis methods for the substances specified in the EU RoHS Directive shall be based on the International Electro-technical Commission’s (IEC).

### 3.12 ISO/IEC17025

International Standard “General requirements for the competence of testing and calibration laboratories”.

### 3.13 chemSHERPA

chemSHERPA is a common scheme for information transfer across a supply chain.

#### 3.13.1 chemSHERPA-CI

Data entry support tool to transfer composition information for chemical substances and mixtures.

#### 3.13.2 chemSHERPA-AI

Data entry support tool to transfer composition information and compliance information of articles.

## **4. Commentary of Laws and Regulations**

Major laws and regulations referenced to decide Environment-related Substances to be Controlled.

### 4.1 Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc.

Law concerning the regulation of examination, manufacturing, etc. regulation of chemical substances.

### 4.2 Protection of the Ozone Layer Law

The Act on the Protection of the Ozone Layer Through the Control of Specified Substances and Other Measures (The Protection of the Ozone Layer Law) was enacted in 1988 in order to implement the resolutions of the Parties to the Montreal Protocol, in addition to the obligation of contracting countries specified in the Vienna Convention for the Protection of the Ozone Layer, which is the international framework for ozone layer protection, and the Montreal Protocol on Substances that Deplete the Ozone Layer.

#### 4.3 76/769/EEC

On the approximation of the laws, regulations and administrative provisions of the Member States relating to restrictions on the marketing and use of certain dangerous substances and preparations 2006/122/EC is a law concerning the prohibition of use of PFOS by the 30th revision instructions of 76/769/ EEC. 76/769/EEC was abolished on 1 June 2009 and was unified in the REACH regulation (Annex XVII).

#### 4.4 REACH Regulation (No 1907/2006)

Regulation regarding the registration, evaluation, approval and restriction of chemical substance which went into effect on 1 June 2007.

#### 4.5 ELV Directive (2000/53/EC)

The "2000/53/EC" stands for the ELV Directive (End of Life Vehicles). It is a directive for reducing wastes from discarded automobiles and promoting collection and reuse of them, and recycle of their parts. The use of lead, mercury, cadmium, and hexavalent chrome is prohibited, in principle, for the automobiles to be sold after July 2003.

#### 4.6 RoHS Directive (2011/65/EU)

The "2011/65/EC" stands for the RoHS (Restriction of the use of certain Hazardous Substances) Directive. It is an EU directive for restricting the use of certain hazardous substances for electrical and electronic equipment. It was enacted as 2002/95/EC in July 2006 with the aim of reducing the environmental load during reclamation or incineration after the use of the products and also preventing a mixture of hazardous substances into recycled materials. It was revised on 1 July 2011 and published as 2011/65/EU (commonly known as RoHS2). (EU) 2015/863 amending directive, publication

#### 4.7 POPs (Stockholm Convention on Persistent Organic Pollutants)

Stockholm Convention on Persistent Organic Pollutants is an international environmental treaty, signed in 2001 and effective from May 2004, that aims to eliminate or restrict the production and use of persistent organic pollutants (POPs). About the target substance, the member nation which has concluded treaties, such as Japan, will be regulated by a domestic statute so that each country can collateralize a treaty.

#### 4.8 TSCA

TSCA: Toxic Substances Control Act

Regulations regulated by "chemicals, mixtures or chemicals, articles" manufactured, processed or imported in the United States for commercial use with the aim of preventing the risks posed by chemicals that are harmful to human health or the environment.

## 5. Request to suppliers

### 5.1 Green Procurement

In promoting green procurement, please cooperate in providing the following documents and information on compliance with laws and regulations.

No.	Types of data to be submitted	Attachment	Format
1	Certificate of Nonuse of Prohibited Substances	Attachment1	PDF
2	List of components	Attachment2	EXCEL
3	Target Part numbers List	Attachment3	PDF
4	chemSHERPA-CI (Chemical substances / Mixture)		SHCI
	chemSHERPA-AI (Article)		SHAI
5	Analysis data		PDF

	Certificate of Non-Use of Prohibited Substances	List of Component	Target Part numbers List	chem SHERPA CI/AI	Analysis data
	Attachment 1	Attachment 2	Attachment 3		
Parts / Materials constituting ROHM products	○	○	※	○	○
Packaging materials	○	○	※	○	○
Sub-materials	○	○	※	—	—

○:Need to be submitted    —: Not need to be submitted

※ : Need to be submitted only when replying in series.

- ROHM may request the submission of documents for parts and materials specified separately.

#### 5.1.1 Certificate of Nonuse of Prohibited Substances Attachment 1

We ask for a proof of statement that prohibited substances are less than the threshold levels in each homogenous material.

#### 5.1.2 List of Components Attachment 2

- 1) Enter all data in one-byte characters.
- 2) Please enter the data of each part number.
- 3) In the "Major production sites" column, describe the name of country in which is finally produced.
- 4) For the product weight, fill in the weight of the product to be reported and choose the weight unit (kg, g, mg).
- 5) Entry of chemical substance information
  - In principle, fill in all the blank cells so that there are no blank cells (not filled in).
  - Fill in the chemical substance information for each homogeneous material so that the percentage is 100%.
  - Enter unintentional substances (impurities, byproducts) as far as they are known. If there are any substances that cannot be disclosed due to confidential manufacturing information, please indicate "Not disclosed" in the chemical substance name column.
  - If there are substances that cannot be disclosed, please indicate "Not disclosed" in the Chemical Substance Name column.
  - The CAS No. should be described as a number separated into three parts by a hyphen.
  - Enter product weight, chemical substance weight and content (wt%) in the cell concerned to two places of decimals.

- For liquid, powder, and film materials, fill out their weight using particular weight and length (e.g.100g per 1 Meter).
- 6) Describe all chemical substances in each homogeneous material for composite parts and parts.

Classification method of homogeneous materials

- Example of the composite parts
    - Printed Circuit Board : Base Material, Wiring, Plating, Resist inks, Silk Print Ink
    - Connector : Housing, Contacts(pin)
    - Harness : Coating Material, Core, Housing, Contacts (pin)
  - Example of the parts
    - Surface Mounting Chip Product (e.g. capacitors)
      - : Main body of the part, Terminal bases, Terminal plating
    - Semiconductor parts
      - : Frames, Frame plating, Chip, Gold wire, Mold resin, Silver paste
- 7) Please choose the code of purpose for containing.

The code of purpose for containing

101:Main Component	107:Machanical Property
102:Thermal stability	108:Triboperformance
103:Vulcanizing agent	109:Corrosion resistance
104:Dyes , Pigment	110:Electric characteristic
105:Flame resistance	998:Impurity ,byproducts
106:Machining	999:Others

- 8) Describe further use/non-use of recycled material in homogeneous materials.

5.1.3 Target Part numbers List Attachment 3

- 1) Use the list if there are many products that the contents of “Certificate of Non-use of Prohibited Substances” and “List of Components” are identical.
- 2) Fill in the series product names and numbers in “Target Part numbers List”.
  - Representative product name ... Fill in the representative product name.  
Example of Representative product name: Cu frame, Ceramic capacitor, Gold wire, ○○ series.
  - Representative product number...Fill in the official name of each materials.  
(Model name as registration at ROHM)
  - Weight ... Fill in the materials weight

#### 5.1.4 chemSHERPA-CI / chemSHERPA-AI

Using the chemical substances in products information scheme within the supplier chain, report any and all information on products containing chemical substances.

Type of Delivery	Answer Format
Chemical Substance	chemSHERPA-CI
Mixture	
Article	chemSHERPA-AI

To correspond with updated laws and regulations, supporting tool data and substance list of chemSHERPA will be revised periodically. Please submit the coming tool data by chemSHERPA homepage. <https://chemsherpa.net/>

#### Precautions when creating chemSHERPA-AI

Please check the issuer information area, composition information and compliance information before creating.

If SVHC is contained, SCIP information is also required.

#### 5.1.5 Analysis Data

##### 1) Unit of analysis measurement

Analysis reports need to be submitted in each homogeneous material constituting the materials.

##### 2) Analysis Laboratory

Analysis report by the ISO/IEC17025 certified laboratories is required to meet customer requirements.

##### 3) Analysis Report Substances

		Analysis data (Refer to Attachment 4)									
		Cd	Pb	Cr <sup>6+</sup>	Hg	PBB	PBDE	Phthalates (DEHP,DBP BBP,DIBP)	Halogens (F, Cl Br, I)	Sb	P
Parts / Materials constituting ROHM products	Halogen free designated materials	○	○	○	○	○	○	○	○	○	○
	Resin Plastic	○	○	○	○	○	○	○	-	-	-
	Other than the above	○	○	○	○	-	-	-	-	-	-
Packaging materials	Resin Plastic	○	○	○	○	○	○	○	-	-	-
	Other than the above	○	○	○	○	-	-	-	-	-	-
Sub-materials		-	-	-	-	-	-	-	-	-	-

(Remark) ROHM may ask suppliers for the additional analysis report by laws and regulations trend or ROHM's customer requirements.



#### 4) Analysis Method

Substances	Polymers	Metals	Electronics
Lead/Cadmium (Pb/Cd)	IEC62321-5 (2013) ICP-OES,ICP-MS,AAS,AFS		
Mercury (Hg)	IEC62321-4 (2013) ICP-OES,ICP-MS,CV-AAS,CV-AFS		
Hexavalent chromium (Cr <sup>6+</sup> )	IEC62321-7-2 (2017) Alkali decomposition / Colorimetric method	IEC62321-7-1 (2015) Boiling water extraction/ Colorimetric method	IEC62321-7-2 (2017) Alkali decomposition / Colorimetric method
Specific bromine-based flame retardants (PBB, PBDE)	IEC62321-6 (2015) GC/MS	NA	IEC62321-6 (2015) GC/MS
Phthalates (DIBP, DBP BBP, DEHP)	IEC62321-8 (2017) GC/MS	NA	IEC62321-8 (2017) GC/MS
Halogens (F, Cl, Br, I)	BS EN14582 (2016) IC		
Antimony, Phosphorus (Sb, P)	US EPA 3052 (1996) ICP-OES	US EPA 3050B (1996) ICP-OES	US EPA 3052 (1996) ICP-OES

#### 5) Allowable concentration

Shall meet the threshold levels of “6. Environment-related Substances to be Controlled”.

#### 6) In the case of the same specification (Maker, Part number, Substances of environmental concern), the analysis report of a representative plant is acceptable.

#### 7) Validity period for analysis report

The effective period of analysis report issued by analysis laboratories is one year from the date of measurement. We may ask you to provide annual updates.

#### 8) Analysis report

Please enter the following items in the analysis report.

- ① Pretreatment method: Official method name or name of the method if different from the official method.
- ② Measurement method: Measurement method name or official method name.
- ③ Name of analysis laboratory, corporate seal, name and signatures of a responsible person at the analysis laboratory and a person who performed measurements.
- ④ Date of issue, date of measurement
- ⑤ Measurement results (If in the event of N.D.(Not Detectable), the minimum limit value of determination is also needed.)
- ⑥ Analysis Flow chart: The description method is entrusted to each one of the analysis laboratory. In principle, sample preparation, decomposition, filtration, dissolution, and other processes shall be stated, and at least the kind of reagents shall be entered in the flow chart.

#### 5.1.6 Provision of other information

ROHM may request the information on chemical substances for which regulations are under consideration or on confirmation of compliance with laws and regulations in the country where the ROHM manufacturing factory is located.

## 6. Environment-related Substances to be Controlled

No.	Substance	CAS No.	Management classification	Scope	Threshold levels
1	Polychlorinated biphenyls (PCB)	-	Prohibit	All application	Intentionally added
2	Polychlorinated naphthalenes (PCN)	-	Prohibit	All application	Intentionally added
3	Polychlorinated terphenyls (PCT)	61788-33-8	Prohibit	All application	Less than 50ppm
4	Trisubstituted organostannic compounds including tributyltin(TBT)compounds and triphenyltin(TPT)compounds)	56-35-9	Prohibit	All application	Less than 1000ppm (Tin)
5	Dibutyltin (DBT) compounds	-	Prohibit	All application	Less than 1000ppm (Tin)
6	Diocetyl tin (DOT) compounds	-	Prohibit	<ul style="list-style-type: none"> <li>Textile articles and leather products intended to come into contact with the skin</li> <li>Childcare articles</li> <li>Two-component room temperature vulcanisation moulding kits (RTV-2moulding kits)</li> </ul>	Less than 1000ppm (Tin)
7	2,4,6-Tri-tert-butylphenol	732-26-3	Prohibit	All application	Intentionally added
8	2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butylphenol	3846-71-7	Prohibit	All application	Intentionally added or less than 1000ppm
9	Hexabromocyclododecane(HBCD) and all major Diastereoisomers	25637-99-4 3194-55-6 4736-49-6 65701-47-5 134237-50-6 134237-51-7 134237-52-8 138257-17-7 138257-18-8 138257-19-9 169102-57-2 678970-15-5 678970-16-6 678970-17-7	Prohibit	All application	Intentionally added or less than 100ppm
10	Cadmium and its compounds	-	Prohibit	Other than the controlled substances	less than 100ppm
			Control	The latest version of RoHS Annex III/IV	
11	Lead and its compounds	-	Prohibit	Electric wire, cable, cord	Less than 300ppm in surface coating material
				Other than the above	Less than 1000ppm
			Control	The latest version of RoHS Annex III/IV	-
12	Hexavalent chromium compounds	-	Prohibit	Other than the controlled substances	Less than 1000ppm
			Control	The latest version of RoHS Annex III/IV	-
13	Mercury and its compounds	-	Prohibit	Other than the controlled substances	Less than 1000ppm
			Control	The latest version of RoHS Annex III/IV	-
14	Four heavy metals (Cadmium, Lead, Hexavalent chromium and Mercury)	-	Prohibit	Packaging materials for shipment	Intentionally added and Sum of 4 substances less than 100ppm
15	Polybrominated biphenyls (PBB)	-	Prohibit	All application	Less than 1000ppm
16	Polybrominated diphenyl ethers (PBDE)	-	Prohibit	All application	Less than 1000ppm

No.	Substance	CAS No.	Management classification	Scope	Threshold levels
17	Phthalates				
	Diethylhexyl phthalate (DEHP)	117-81-7	Prohibit	All application	Less than 1000ppm
	Dibutyl phthalate (DBP)	84-74-2	Prohibit	All application	Less than 1000ppm
	Butyl benzyl phthalate (BBP)	85-68-7	Prohibit	All application	Less than 1000ppm
	Specific phthalates Group 1 (DEHP, DBP, BBP)	117-81-7 84-74-2 85-68-7	Prohibit	Toy , child care products	Sum : Less than 1000ppm
	Diisononyl phthalate (DINP)	28553-12-0 68515-48-0	Prohibit	All application	Less than 1000ppm
	Diisodecyl phthalate (DIDP)	26761-40-0 68515-49-1	Prohibit	All application	Less than 1000ppm
	Di-n-octyl phthalate (DNOP)	117-84-0	Prohibit	All application	Less than 1000ppm
	Specific phthalates Group 2 (DINP, DIDP, DNOP)	28553-12-0 68515-48-0 26761-40-0 68515-49-1 117-84-0	Prohibit	Children's toy that can be placed in a child's mouth or child care products	Sum : Less than 1000ppm
	Diisobutyl phthalate (DIBP)	84-69-5	Prohibit	All application	Less than 1000ppm
Phthalates other than the above	-	Control	All application	Less than 1000ppm	
18	Perfluorinated carboxylic acids (PFCA)				
	PFOA (Perfluorooctanoic acid) and related substances	-	Prohibit	All application	PFOA and its salt: Less than 25ppb Related substances: Less than 1000ppb
	Perfluorocarboxylic acids containing 9 to 14 carbon atoms in the chain (C9-C14 PFCAs), their salts and C9-C14 PFCA-related substances	-	Prohibit	All application	PFCA(C9-c14) and their salts : Less than 25ppb Related substances : Sum: Less than 260ppb
	Perfluorohexanoic acid(PFHxA) and its salt and related substances	-	Control	All application	-
PFCA other than the above	-	Control	All application	-	
19	Perfluoroalkanesulfonic acid (PFSA)				
	Perfluorooctane sulfonic acid (PFOS) and its salt	-	Prohibit	All application	Intentionally added Impurity : Less than 1000ppm coated material : < 1 $\mu$ g/m <sup>2</sup>
	Perfluorohexane sulfonic acid(PFHxS) and its salt and related substances	-	Control	All application	-
	Perfluorobutane sulfonic acid(PFBS) and its salt and related substances	-	Control	All application	-
PFSA other than the above	-	Control	All application	-	
20	Dimethylfumarate (DMF) alias : Dimethyl Fumarate	624-49-7	Prohibit	All application	Less than 1000ppm
21	Shortchain Chlorinated Paraffins (C10-13) (SCCP)	-	Prohibit	All application	Intentionally added or less than 1000ppm of article
22	Medium Chlorinated Paraffins (C14-17) (MCCP)	-	Prohibit	All application	Intentionally added or less than 1000ppm of article
23	Arsenic and its compounds	-	Prohibit	Other than the controlled substances	Less than 1000ppm
			Control	• Compound semiconductor • Dopants for semiconductor • Copper foil of printed wiring board	-
24	Nickel and its compounds	-	Prohibit	Prolonged contact with the skin	0.28 $\mu$ g/cm <sup>2</sup> /week
			Control	Other than the above	
25	Asbestos	-	Prohibit	All application	Intentionally added
26	Azocolourants and azodyes which form certain aromatic amine	Refer to Table.1	Prohibit	All application	Less than 30ppm

No.	Substance	CAS No.	Management classification	Scope	Threshold levels
27	Cobalt Chloride	7646-79-9	Prohibit	Indicator in a drying agent	Less than 1000ppm
28	Ozone depleting substances (Montreal Protocol A, B, C, E Substances)	Refer to Table.3	Prohibit	All application	Intentionally added
29	Antimony and its compounds				
	Antimony trioxide	1309-64-4	Prohibit	Materials specified as halogen free	Less than 1000ppm
	Other than the above	-	Control	Other than the prohibited substances	-
30	Beryllium and its compounds				
	Beryllium oxide	7440-41-7	Prohibit	All application	Less than 1000ppm
	Other than the above	-	Control	Other than the prohibited substances	-
31	Bisphenol A	80-05-7	Prohibit	Thermal paper	Non use
			Control	Other than the prohibited substances	-
32	Tris(1-chloro-2-propyl) phosphate (TCPP)	13674-84-5	Prohibit	All application	Less than 1000ppm
33	Tris(1,3-dichloro-2-propyl)phosphate (TDCPP)	13674-87-8	Prohibit	All application	Less than 1000ppm
34	Tris(2-chloroethyl) phosphate (TCEP)	115-96-8	Prohibit	All application	Less than 1000ppm
35	Polyvinyl chloride (PVC) and its mixtures	-	Prohibit	Other than the controlled substances	Less than 1000ppm
			Control	<ul style="list-style-type: none"> <li>• Wafer processing film</li> <li>• Cable</li> <li>• Heat shrinkable tube</li> <li>• FFC</li> <li>• Resin binder</li> </ul>	-
36	Isopropylphenyl phosphate (3:1) PIP (3:1)	68937-41-7	Control	Adhesives, adhesive material and sealants. (Scheduled to be banned from 6 January 2025)	-
				lubricants and greases, Recycled plastic	-
				Other than the above (scheduled to be prohibited from 8 October 2022)	-
37	Red phosphorus Flame Retardants	-	Prohibit	All application	Intentionally added
38	Chlorinated Flame Retardants	-	Prohibit	All application	Less than 900ppm (Cl)
39	Brominated Flame Retardants	-	Prohibit	Material specified as halogen free	Less than 900ppm (BI) Less than 1500ppm (Cl+Br)
			Control	Other than the prohibited substances	-
40	Benzene	71-43-2	Prohibit	Material for manufacturing processes (Cleaning agents, Degreasers, Demolder solution)	Intentionally added
			Control	Other than the prohibited substances	-
41	Normal-hexane (N-hexane)	110-54-3	Prohibit	Material for manufacturing processes (Cleaning agents, Degreasers, Demolder solution)	Intentionally added
			Control	Other than the prohibited substances	-
42	N-Methyl-2-pyrrolidone (NMP)	872-50-4	Prohibit	Material for manufacturing processes (Cleaning agents, Degreasers, Demolder solution))	Intentionally added
			Control	Other than the prohibited substances	-
43	Toluene	108-88-3	Prohibit	Material for manufacturing processes (Cleaning agents, Degreasers, Demolder solution)	Intentionally added
			Control	Other than the prohibited substances	-
44	Pentachlorothiophenol (PCTP)	133-49-3	Prohibit	All application	Intentionally added-

No.	Substance	CAS No.	Management classification	Scope	Threshold levels
45	Hexachloro-1,3-butadiene(HCBD)	87-68-3	Prohibit	All application	Intentionally added
46	Perchlorates (PCA)	-	Control	All application	-
47	Polycyclic aromatic hydrocarbon(PAH)	Refer to Table.2	Control	All application	-
48	Tetrabromobisphenol A (TBBPA)	79-94-7	Control	All application	-
49	Bismuth and its compounds	-	Control	All application	-
50	Siloxiane	-	Control	All application	-
51	Formaldehyde	50-00-0	Control	All application	-
52	1,4-Dioxane	123-91-1	Control	All application	-
53	Pigment Violet 29	81-33-4	Control	All application	-
54	REACH Regulation Candidate list of SVHC	-	Control	All application	-
55	Fluorinated greenhouse gases (PFC, SF6, SF4 etc.)	-	Control	All application	-
56	Other chlorine compounds	-	Prohibit	Organochlorine cleaning agent	New material, Intentionally added -
		-	Control	Other than the prohibited substances	-
57	Other bromine compounds	-	Control	All application	-

RoHS Annex III/IV Exemption list

[http://ec.europa.eu/environment/waste/rohs\\_eee/legis\\_en.htm](http://ec.europa.eu/environment/waste/rohs_eee/legis_en.htm)

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

Table 1. List of Amine, which shall not be generated by the decomposition of Azo compound

No.	Substance	CAS No.
1	4-aminodiphenyl	92-67-1
2	benzidine	92-87-5
3	4-chloro-o-toluidine	95-69-2
4	2-naphthylamine	91-59-8
5	o-aminoazotoluene	97-56-3
6	2-amino-4-nitrotoluene	99-55-8
7	p-chloroaniline	106-47-8
8	2, 4-diaminoanisole	615-05-4
9	4, 4'-Diaminodiphenylmethane	101-77-9
10	3, 3'-dichlorobenzidine	91-94-1
11	3, 3'-dimethoxybenzidine	119-90-4
12	3, 3'-dimethylbenzidine	119-93-7
13	3, 3'-dimethyl-4,4'-diaminodiphenylmethane	838-88-0
14	p- cresidine	120-71-8
15	4, 4'-methylene bis(2-chloroaniline)	101-14-4
16	4, 4'-oxydianiline	101-80-4
17	4, 4'-thiodianiline	139-65-1
18	o-toluidine	95-53-4
19	2, 4-toluenediamine	95-80-7
20	2, 4, 5-trimethylaniline	137-17-7
21	o-anisidine	90-04-0
22	4-aminoazobenzene	60-09-3

Table 2. Polycyclic aromatic hydrocarbon (PAH)

No.	Substance	CAS No.
1	Benzo[a]pyrene (BaP)	50-32-8
2	Benzo[e]pyrene (BeP)	192-97-2
3	Benzo[a]anthracene (BaA)	56-55-3
4	Chrysen (CHR)	218-01-9
5	Benzo[b]fluoranthene (BbFA)	205-99-2
6	Benzo[j]fluoranthene (BjFA)	205-82-3
7	Benzo[k]fluoranthene (BkFA)	207-08-9
8	Dibenzo[a,h]anthracene(DBAhA)	53-70-3

Table 3. Ozone depleting substances

Class	Name	Motoreal Protocol	Substance	Alias	Molecular formula	CAS No.
Class1	CFC	Annex A Group I	Trichlorofluoromethane	CFC-11	CFCl3	75-69-4
			Dichlorodifluoromethane	CFC-12	CF2Cl2	75-71-8
			Trichlorotrifluoroethane	CFC-113	C2F3Cl3	26523-64-8
			Dichlorotetrafluoroethane	CFC-114	C2F4Cl2	1320-37-2
			Monochloropentafluoroethane	CFC-115	C2F5Cl	76-15-3
	Halon	Annex A Group II	Bromochlorodifluoromethane	Halon-1211	CF2BrCl	353-59-3
			Bromotrifluoromethane	Halon-1301	CF3Br	75-63-8
			Dibromotetrafluoroethane	Halon-2402	C2F4Br2	25497-30-7
	Other CFC	Annex B Group I	Chlorotrifluoromethane	CFC-13	CF3Cl	75-72-9
			Pentachlorofluoroethane	CFC-111	C2FCl5	354-56-3
			Tetrachlorodifluoroethane	CFC-112	C2F2Cl4	28605-74-5
			Heptachlorofluoropropane	CFC-211	C3FCl7	-
			Hexachlorodifluoropropane	CFC-212	C3F2Cl6	3182-26-1
			Pentachlorotrifluoropropane	CFC-213	C3F3Cl5	134237-31-3
			Tetrachlorotetrafluoropropane	CFC-214	C3F4Cl4	29255-31-0
			Trichloropentafluoropropane	CFC-215	C3F5Cl3	1599-41-3
			Dichlorohexafluoropropane	CFC-216	C3F6Cl2	42560-98-5
	Chloroheptafluoropropane	CFC-217	C3F7Cl	-		
	Carbon tetrachloride	Annex B Group II	Carbon tetrachloride	-	CCl4	56-23-5
	1,1,1-Trichloroethane	Annex B Group III	1,1,1-Trichloroethane	-	C2H3Cl3	71-55-6
	Chlorobromomethane	Annex C Group III	Chlorobromomethane	-	CH2BrCl	74-97-5
	Methylbromide	Annex E	Methylbromide	-	CH3Br	74-83-9
	HBFC	Annex C Group II	Dibromofluoromethane	-	CHFBr2	1863-53-7
			Bromodifluoromethane	HBFC-22B1	CHF2Br	1511-62-2
			Bromofluoromethane	-	CH2FBr	373-52-4
			Tetrabromofluoroethane	-	C2HFBr4	-
			Tribromodifluoroethane	-	C2HF2Br3	-
			Dibromotrifluoroethane	-	C2HF3Br2	-
			Bromotetrafluoroethane	-	C2HF4Br	124-72-1
			Tribromofluoroethane	-	C2H2FBr3	-
			Dibromodifluoroethane	-	C2H2F2Br2	-
			Bromotrifluoroethane	-	C2H2F3Br	421-06-7
			Dibromofluoroethane	-	C2H3FBr2	358-97-4
Bromodifluoroethane			-	C2H3F2Br	359-07-9	
Bromofluoroethane			-	C2H4FBr	762-49-2	
Hexabromofluoropropane			-	C3HFBr6	-	
Pentabromodifluoropropane			-	C3HF2Br5	-	
Tetrabromotrifluoropropane			-	C3HF3Br4	-	
Tribromotetrafluoropropane			-	C3HF4Br3	-	
Dibromopentafluoropropane			-	C3HF5Br2	-	
Bromohexafluoropropane			-	C3HF6Br	2252-78-0	
Pentabromofluoropropane			-	C3H2FBr5	-	
Tetrabromodifluoropropane			-	C3H2F2Br4	-	
Tribromotrifluoropropane			-	C3H2F3Br3	-	
Dibromotetrafluoropropane			-	C3H2F4Br2	-	
Bromopentafluoropropane			-	C3H2F5Br	-	
Tetrabromofluoropropane			-	C3H3FBr4	-	
Tribromodifluoropropane			-	C3H3F2Br3	-	
Dibromotrifluoropropane			-	C3H3F3Br2	-	
Bromotetrafluoropropane			-	C3H3F4Br	-	
Tribromofluoropropane			-	C3H4FBr3	-	
Dibromodifluoropropane			-	C3H4F2Br2	-	
Bromotrifluoropropane			-	C3H4F3Br	-	
Dibromofluoropropane			-	C3H5FBr2	-	
Bromodifluoropropane			-	C3H5F2Br	-	
Bromofluoropropane	-	C3H6FBr	-			

Class	Name	Motoreal Protocol	Substance	Alias	Molecular formula	CAS No.
Class2	HCFC	Annex C Group I	Dichlorofluoromethane	HCFC-21	CHFCl2	75-43-4
			Monochlorodifluoromethane	HCFC-22	CHF2Cl	75-45-6
			Monochlorofluoromethane	HCFC-31	CH2FCl	596-70-4
			Tetrachlorofluoroethane	HCFC-121	C2HFCl4	134237-32-4
			Trichlorodifluoroethane	HCFC-122	C2HF2Cl3	354-15-4
			Dichlorotrifluoroethane	HCFC-123	C2HF3Cl2	34077-87-7
			2,2-Dichloro-1,1,1-trifluoroethane	HCFC-123	CHCl2CF3	306-83-2
			Monochlorotetrafluoroethane	HCFC-124	C2HF4Cl	63938-10-3
			2-Chloro-1,1,1,2-tetrafluoroethane	HCFC-124	CHFClCF3	2837-89-0
			Trichlorofluoroethane	HCFC-131	C2H2FCl3	134237-34-6
			Dichlorodifluoroethane	HCFC-132	C2H2F2Cl2	25915-78-0
			Monochlorotrifluoroethane	HCFC-133	C2H2F3Cl	1330-45-6
			Dichlorofluoroethane	HCFC-141	C2H3FCl2	25167-88-8
			1,1-Dichloro-2,2,2-trifluoroethane	HCFC-141b	CH3CFCl2	1717-00-6
			Chlorodifluoroethane	HCFC-142	C2H3F2Cl	25497-29-4
			1-Chloro-1,1-difluoroethane	HCFC-142	CH3CF2Cl	75-68-3
			Chlorofluoroethane	HCFC-151	C2H4FCl	110587-14-9
			Hexachlorofluoropropane	HCFC-221	C3HFCl6	134237-35-7
			Pentachlorodifluoropropane	HCFC-222	C3HF2Cl5	134237-36-8
			Tetrachlorotrifluoropropane	HCFC-223	C3HF3Cl4	134237-37-9
			Trichlorotetrafluoropropane	HCFC-224	C2HF4Cl3	134237-38-0
			Dichloropentafluoropropane	HCFC-225	C3HF5Cl2	127564-92-5
			Dichloropentafluoropropane	HCFC-225ca	CF3CF2CHCl2	422-56-0
			Dichloropentafluoropropane	HCFC-225cb	CF2ClCF2CHClF	507-55-1
			Monochlorohexafluoropropane	HCFC-226	C3HF6Cl	134308-72-8
			Pentachlorofluoropropane	HCFC-231	C3H2FCl5	134190-48-0
			Tetrachlorodifluoropropane	HCFC-232	C3H2F2Cl4	134237-39-1
			Trichlorotrifluoropropane	HCFC-233	C3H2F2Cl3	134237-40-4
			Dichlorotetrafluoropropane	HCFC-234	C3H2F4Cl2	127564-83-4
			Monochloropentafluoropropane	HCFC-235	C3H2F5Cl	134237-41-5
			Tetrachlorofluoropropane	HCFC-241	C3H3FCl4	134190-49-1
			Trichlorodifluoropropane	HCFC-242	C3H3F2Cl3	134237-42-6
			Dichlorotrifluoropropane	HCFC-243	C3H3F3Cl2	134237-43-7
			Monochlorotetrafluoropropane	HCFC-244	C3H3F4Cl	134190-50-4
			Monochlorotetrafluoropropane	HCFC-251	C3H4FCl3	134190-51-5
			Dichlorodifluoropropane	HCFC-252	C3H4F2Cl2	134190-52-6
			Monochlorotrifluoropropane	HCFC-253	C3H4F3Cl	134237-44-8
			Dichlorofluoropropane	HCFC-261	C3H5FCl2	134237-45-9
			Monochlorodifluoropropane	HCFC-262	C3H5F2Cl	134190-53-7
			Monochlorofluoropropane	HCFC-271	C3H6FCl	134190-54-8



7. Survey Sheet

Attachment 1 Certificate of Non-use of Prohibited Substances

To: ROHM Co., Ltd.

Date: \_\_\_\_\_

## Certificate of Non-Use of Prohibited Substances

Company Name: \_\_\_\_\_

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

Sect./Dept.: \_\_\_\_\_

Responsible person

(Position,Signature): \_\_\_\_\_

Person in charge (Position): \_\_\_\_\_

TEL: \_\_\_\_\_

E-mail: \_\_\_\_\_

Manufacturer name: \_\_\_\_\_

Sect./Dept.: \_\_\_\_\_

Responsible person (Position): \_\_\_\_\_

TEL: \_\_\_\_\_

We and our group companies hereby certify that parts / materials to be delivered to ROHM including its group companies are less than the threshold levels of prohibited substances cited in "Control Standard of Chemical Substances in Products Rev.002" in homogeneous materials.

« Target parts / materials »

Product name: \_\_\_\_\_

Product number: \_\_\_\_\_

End



## Attachment 2 List of Components Entering Example

### ■Ex.1 :Lead frame

Product name:	Lead frame
Product number:	A-003
Product weight:	130.00 mg
Major production sites:	Japan/Malaysia

#### ◀List of Component▶

Homogeneous material	Raw material maker	Chemical substance name	CAS No.	Weight	Unit	Content (wt%)	Purpose of inclusion/intended use	Recycled material
Base Material	〇〇Steel	Copper	7440-50-8	129.77	mg	99.84	101:Main Component	0.Not used
		Iron	7439-89-6	0.097	mg	0.075	107:Machanical Property	0.Not used
		Phosphorus	7723-14-0	0.11	mg	0.085	107:Machanical Property	0.Not used
Plating	〇〇Chemicals	Copper	7440-50-8	0.020	mg	100.00	101:Main Component	0.Not used

### ■Ex.2 :Printed Circuit Board

Product name:	Printed Circuit Board
Product number:	C-101
Product weight:	110.03 g
Major production sites:	Japan/Malaysia

#### ◀List of Component▶

Homogeneous material	Raw material maker	Chemical substance name	CAS No.	Weight	Unit	Content (wt%)	Purpose of inclusion/intended use	Recycled material
Base Material	〇〇Chemicals	Epoxy Resin	29690-82-2	19.76	g	25.00	101:Main Component	0.Not used
		Glass cloth	65997-17-3	57.71	g	73.01	101:Main Component	0.Not used
		Tributhyl phosphate	126-73-8	1.57	g	1.99	101:Main Component	0.Not used
Wiring	Nondisclosure	Copper	7440-50-8	15.28	g	99.64	101:Main Component	0.Not used
		Lead	7439-92-1	0.055	g	0.36	998:Impurity , byproduct	0.Not used
Ink	〇〇Ink	Tributhyl phosphate	126-73-8	15.13	g	98.73	101:Main Component	0.Not used
		Carbon black	1333-86-4	0.13	g	0.85	104:Dyes , Pigment	0.Not used
		Nondisclosure	—	0.065	g	0.42	106:Machining	0.Not used
Plating	〇xChemicals	Gold	7440-57-5	0.33	g	100.00	101:Main Component	0.Not used

### ■Ex.3 :Mold Resin

Product name:	Mold Resin
Product number:	D-202
Product weight:	4.75 g
Major production sites:	Japan/Malaysia

#### ◀List of Component▶

Homogeneous material	Raw material maker	Chemical substance name	CAS No.	Weight	Unit	Content (wt%)	Purpose of inclusion/intended use	Recycled material
Base compound	〇〇Chemicals	Epoxy resin	29690-82-2	0.67	g	59.82	101:Main Component	0.Not used
		Phenol novolak	9003-35-4	0.45	g	40.18	101:Main Component	0.Not used
Flame retardant	〇〇Chemicals	Metal hydroxide	21645-51-2	0.16	g	70.80	105:Flame resistance	0.Not used
		Organic phosphorus compounds	-	0.066	g	29.20	105:Flame resistance	0.Not used
additive agent	〇ΔChemicals	Carbon black	1333-86-4	0.034	g	100.00	104:Dyes , Pigment	0.Not used
Filler	〇〇Chemicals	Silica (amorphous)	60676-86-0	3.37	g	100.00	102:Thermal stability	0.Not used

■ Ex.4 : Cardboard box

Product name:	Cardboard box	
Product number:	AB-1	
Product weight:	1.25	kg
Major production sites:	Japan/Malaysia	

◀List of Component▶

Homogeneous material	Raw material maker	Chemical substance name	CAS No.	Weight	Unit	Content (wt%)	Purpose of inclusion/intended use	Recycled material
Outer liner	OO Paper Mfg.	-	-	C5 (160g/m <sup>2</sup> )	-	-	101:Main Component	1.Used
Core	OO Paper Mfg.	-	-	SCP (160g/m <sup>2</sup> )	-	-	101:Main Component	1.Used
Back liner	OO Paper Mfg.	-	-	C5 (160g/m <sup>2</sup> )	-	-	101:Main Component	1.Used
Ink	OO Ink	Tributyl phosphate	126-73-8	0.17	-	85.00	101:Main Component	0.Not used
		Carbon black	1333-86-4	0.010	-	5.00	104:Dyes , Pigment	0.Not used
		Nondisclosure	—	0.020	-	10.00	999: Others	0.Not used

To: ROHM Co., Ltd.

Date: \_\_\_\_\_

## Target Part numbers List

Company Name: \_\_\_\_\_

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

Sect./Dept.: \_\_\_\_\_

Responsible person \_\_\_\_\_

(Position,Signature): \_\_\_\_\_

Person in charge (Position): \_\_\_\_\_

TEL: \_\_\_\_\_

E-mail: \_\_\_\_\_

Manufacturer name: \_\_\_\_\_

Sect./Dept.: \_\_\_\_\_

Responsible person (Position): \_\_\_\_\_

TEL: \_\_\_\_\_

Representative product name: \_\_\_\_\_

Representative product number: \_\_\_\_\_

We hereby certify that the following product names and numbers are identical with the contents of Certificate of Non-Use of Prohibited Substances of representative product name and number and chemical substances in constituent materials are also identical.

Note

No.	Product name	Product number	Product weight	Unit
1				
2				
3				
4				
5				
6				
7				
8				
9				
10				
11				
12				
13				
14				
15				
16				
17				
18				
19				
20				

Attachment 4 Scope of Substances of environmental concern Survey

Examples of Applications of Substances of environmental concern Survey

1. Parts and Materials constituting products

Materials name		Certificate of Non-Use Prohibited Substance	List of Component	chem SHERPA Cl/ Al	*Analysis Data	Target substances of analysis									
						Cd	Pb	Cr <sup>6+</sup>	Hg	PBB	PBDE	Phthalates	Halogens	Sb	P
Resin materials	Halogen free designated materials	○	○	○	○	○	○	○	○	○	○	○	○	○	○
	Protective resin, adhesive · Mold resin · Epoxy resin	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Films, tapes · Polyimide · Polyester	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Pastes · Silver, Carbon · Silicone · Polyimide	○	○	○	○	○	○	○	○	○	○	○	-	-	-
Metal materials	Wire · Gold, Aluminum, Copper	○	○	○	○	○	○	○	○	-	-	-	-	-	-
	Metal sheet · Leadframe · Plated frame	○	○	○	○	○	○	○	○	-	-	-	-	-	-
	Tantalums · Powder, Sintered object, Wire	○	○	○	○	○	○	○	○	-	-	-	-	-	-
Inorganic materials	Ceramics · Ceramic substrate	○	○	○	○	○	○	○	○	-	-	-	-	-	-
	Glasses · Liquid crystal glass · Glass tube	○	○	○	○	○	○	○	○	-	-	-	-	-	-
Electronic parts, Composite parts	Semiconductor, Passive components · IC, Condenser Circuit board · PWB Cable, Electrical wire, Connecting parts · FPC, FFC · Covered wires · Connector	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Resin	○	○	○	○	○	○	○	○	○	○	○	-	-	-
Semiconductor element materials	Resin · Polyimide	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Metal, Inorganic · Wafer · Target · Material gas	○	○	○	○	○	○	○	○	-	-	-	-	-	-
Plating materials	· Plating solution · Tin ball · Nickel ball	○	○	○	○	○	○	○	○	-	-	-	-	-	-

2. Packaging Materials

Materials name		Certificate of Non-Use Prohibited Substance	List of Component	chem SHERPA Cl/ Al	*Analysis Data	Target substances of analysis									
						Cd	Pb	Cr <sup>6+</sup>	Hg	PBB	PBDE	Phthalates	Halogens	Sb	P
Resin materials	Plastic reel	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Tube, Tube stopper	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Top tape	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Emboss tape	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Dicing tape	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Tray	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Protection film	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Case	○	○	○	○	○	○	○	○	○	○	○	-	-	-
Paper materials	Tape, Label Package box, Cardboard box	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Ink part Except ink part	○	○	○	○	○	○	○	○	-	-	-	-	-	-
Composite parts	Blister bag	○	○	○	○	○	○	○	○	○	○	○	-	-	-
	Resin Except resin	○	○	○	○	○	○	○	○	-	-	-	-	-	-

The materials Listed in the table below are different documents of the submission.

Materials name		Certificate of Non-Use Prohibited Substance	List of Component	chem SHERPA Cl/ Al	*Analysis Data	Target substances of analysis									
						Cd	Pb	Cr <sup>6+</sup>	Hg	PBB	PBDE	Phthalates	Halogens	Sb	P
Resin materials	Wafer Case	○	○	x	○	○	○	○	○	○	○	○	-	-	-
Display materials	Felt pen, Ball-point pen Ink cartridge	x	○	x	x	-	-	-	-	-	-	-	-	-	-
	Tapes	x	○	x	x	-	-	-	-	-	-	-	-	-	-

### 3. Sub-Materials

Materials name	Certificate of Non-Use Prohibited Substance	List of Component	chem SHERPA Cl/ Al	*Analysis Data	Target substances of analysis										
					Cd	Pb	Cr <sup>6+</sup>	Hg	PBB	PBDE	Phthalates	Halogens	Sb	P	
Resin materials	Resist	○	○	x	x	-	-	-	-	-	-	-	-	-	-
	Grinding tape	○	○	x	x	-	-	-	-	-	-	-	-	-	-
Chemicals	Flux	○	○	x	x	-	-	-	-	-	-	-	-	-	-
	Cleaning solution	○	○	x	x	-	-	-	-	-	-	-	-	-	-
Gas	Nitrogen,Forming	○	○	x	x	-	-	-	-	-	-	-	-	-	-
Polishing material	Beads	○	○	x	x	-	-	-	-	-	-	-	-	-	-
	Slurry	○	○	x	x	-	-	-	-	-	-	-	-	-	-
Release agent (for mold)	Spray,Solvent	○	○	x	x	-	-	-	-	-	-	-	-	-	-

\*Analysis Data : Need to provide the data in each homogeneous material.

Need to provide the both data of plating film and base material for plated parts.

### 4.Other

Designated Parts/materials separately announced by ROHM.

## **8. History and Content of Revisions**

Rev.No	Date	Revision Contents
Rev.001	1 Nov 2018	Document Release Requirements related to the management of chemical substances in products were separated independently from the Green Procurement Guideline and enacted as the Control Standard of Chemical Substances in Products.
Rev.002	1 April 2022	<ul style="list-style-type: none"><li>• 4. Commentary of Laws and Regulations 4.6 2011/65 / EU, 4.8 TSCA: Addendum and review</li><li>• 5.1 Green Procurement Added information on compliance with laws and regulations</li><li>• 5.1.4 chemSHERPA-CI / chemSHERPA-AI Added *Precautions when creating chemSHERPA-AI</li><li>• 5.1.2 List of constituent substances Attachment 2 Added the provision of information on non-disclosure substances</li><li>• 5.1.5 Analysis Data<ul style="list-style-type: none"><li>3) Analysis Report Substances Added analytical material for packaging materials</li><li>4) Analysis Method Modified analytical methods for antimony and phosphorus</li></ul></li><li>• 5.1.6 Provision of other information added</li><li>• 6. Review of Environment-related Substances to be Controlled</li><li>• Attachment 2 List of constituent substances Changed format and List of Components Entering Example</li><li>• Attachment 3 Target Part numbers List Changed format</li></ul>