

KURODA Precision Industries Group
Green Procurement Standards
(Ver. 3.2)



KURODA PRECISION INDUSTRIES LTD.
Environmental, Health & Safety (EHS) Committee

Introduction

I wish to express my sincere gratitude for your continuous support.

In recent years, global environmental problems have been drawing public attention, and once again corporate social responsibility is being asked.

KURODA, as a precision equipment manufacturer, has created our fundamental principles and philosophy concerning environmental conservation with our eyes on the future, developing our business operation with an aim of global environmental conservation and of building a recycling society.

As a part of that effort, KURODA has started to work on the realization of environment-friendly products. The reduction of our products` environmental burden will take place at the following stages:

- (1) Production of components or equipment
- (2) Use of Kuroda's products by customers

As such, the reduction of the environmental burden of KURODA`s products is an impossible task to achieve by our efforts alone; the cooperation of our business partners is indispensable. In asking for cooperation from our business partners, we have prepared these "Green Procurement Standards". In this regard, in addition to asking for an understanding of the outline of these standards, we also ask for cooperation between KURODA and our business partners to promote a management system for global environmental conservation.

KURODA PRECISION INDUSTRIES LTD.

Hiroshi Kuroda,
President

Contents	
Introduction	1
1. Aim	2
2. Scope	2
3. Involvement in Green Procurement	2
4. Green Procurement Requirements	3
4-1 Environmental Management System Requirements.....	3
4-2 Product Requirements.....	3
5. Guidelines for Examining Environmental Impact Substances	4
6. KURODA Evaluations	5
6-1 Environmental Management System Evaluations	5
6-2 Product Evaluations.....	5
6-3 Other	6
Attachment 1e. Environmental management system survey table	7
Attachment 2e. Certificate of Nonuse of Banned Substances in Products	9
Attachment 3e. Detailed statement on expected abolishment date of KURODA specified banned substances	10

Disclaimer: In preparing these standards, we referred to the "Green Procurement Standards" of various companies who have taken the lead in promoting green procurement activities.

1. Aim

KURODA Precision Industries Group including KURODA PRECISION INDUSTRIES LTD. and its affiliated companies (hereinafter called KURODA) provides customers with environment-friendly products by promoting green procurement. Through that activity, KURODA tries to conserve the global environment and help create a recycling society. These “Green Procurement Standards” are the guideline for the promotion of this activity.

2. Scope

These standards apply to the cases in which KURODA procures items for production from suppliers such as products, constituent parts, and/or materials which constitute “KURODA” brand products or products delivered to our OEM customers.

Also note that some items are subject to be added to these standards depending on customer’s intentions, country or region individually.

3. Involvement in Green Procurement

- (1) In procuring items for production, such as products, constituent parts, and materials, KURODA has set requirements for “items” delivered to KURODA and “business activities” for our business partners from the following standpoints.
 1. Creation and management of an “environmental management system” by the business partner
 2. Results of continuous improvements in environmental performance (observance of laws, management of substances that have an environmental impact, etc.)
- (2) Kuroda hopefully asks that our business partners promote environmental management activities that fulfill KURODA requirements.
- (3) Business partners must supply KURODA with information on “self-evaluation of environmental management systems”, “environmental impact substances in production process”, and “environmental impact substances contained in products”.
- (4) KURODA decides whether to procure or not based on the supplied information.
- (5) If the requirements are not satisfied, procurement may be suspended.

KURODA Precision Industries Group

The KURODA Precision Industries Group with its environmental protection activities is the general name for the following companies, which sell “KURODA” brand products.

KURODA PRECISION INDUSTRIES LTD.

KURODA International Co., Ltd.

For enquiries on the environmental activities of the KURODA Precision Industries Group

Environmental, Health & Safety (EHS) Committee Secretariat

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4. Green Procurement Requirements

4-1 Environmental Management System Requirements

(1) Configuring an Environmental Management System

The requirement of an Environmental Management System is not a demand for the creation of a new system for those business partners who have already created and are operating their own environmental management systems.

We ask that they make effective use of existing systems, including environmental management systems based on ISO Q 14001, for which approval is obtained from a third party.

- Configurations as part of a quality management system
- Configurations as part of other management systems
- Configurations as independent management systems

(2) Observance of Laws

Observe all laws and regulations pertaining to the environment.

(3) Supplying Information

All the requested environment related information must be supplied to KURODA.

4-2 Product Requirements

(1) Managing environmental impact substances used during development, manufacturing and sales

Do not use the banned substances listed in "Appendix Table 1". Regarding the controlled substances, have an understanding of the current status of use and reduce usage voluntarily.

(2) Managing environmental impact substances contained in products

The banned substances listed in "Appendix Table 1" should not be contained in the products.

Note 4a: Environmental Management System Models

Environmental management system requirements are based on regulations in ISO Q 14001. It is recommended to obtain third party approval for the relevant standards, but that is not a condition of business.

Note 4b: Environmental Laws and Regulations

Environmental laws and regulations refer to laws, regulations, and agreements etc. stipulated about the activities of the organization including air, water, soil, natural resources, energy, people, and their interactions. Which laws and regulations to be specifically addressed in the environmental management system depends on the business partner's judgment.

Note 4c: Production Process

The production process in these standards refers to all processes from designing, developing, manufacturing (processing, assembling, packing, shipping, etc.), selling, etc. until the product is delivered to KURODA.

Note 4d: Appendix Table 1

"Appendix Table 1" was originally determined by KURODA based on the laws and regulations in Japan and other countries including the RoHS Directive. When related laws and regulations are changed / revised, we will also review "Appendix Table 1" appropriately.

5. Guidelines for Examining Environmental Impact Substances

(1) Example of Mechanisms for Investigating Environmental Impact Substances used in the Production Process

Listing	List the chemicals used in the production process.
	Put the name of chemicals' ingredient and CAS No. on the list. You can get Safety Data Sheets and refer to them.
↓	
Survey	Survey if the listed substances are relevant to the ones defined as 'the environmental impact substances in the production process' in Appendix Table 1.
↓	
Recording and evaluation of survey results	If some of the listed substances are relevant to the ones specified as 'the environmental impact substances in the production process', record the type, purpose of use and quantity consumed.
	Confirm if the listed substances are relevant to the banned or controlled substances specified as 'the environmental impact substances in the production process'
↓	
Recording of survey results and evaluation results	Record the survey results and the evaluation results.
	Submit the survey results and the evaluation results if KURODA requests.

(2) Example of Mechanisms for Investigating Environmental Impact Substances contained in Products

Listing	List the constituent parts and materials of products.
	List the secondary materials and chemicals added in the production process.
↓	
Survey	Request suppliers of listed constituent parts, materials and secondary materials to survey if they contain the environmental impact substances.
	The object of the survey shall include environmental impact substances specified as "the environmental impact substances contained in the product" in Appendix table 1.
	If the supplier can not get the results, they should ask for the survey results from secondary suppliers on their own responsibility.
	To improve the reliability of the information from suppliers, request the creation and the maintenance of the system to control the environmental impact substances conforming to this standard.
↓	
Evaluation of survey results	Evaluate if the survey results meets this standard.
↓	
Evaluation and summary of items	Summarize the substances contained in each item supplied to KURODA based on the survey results and evaluate if it meets this standard.
↓	
Recording of survey results and evaluation results	Record the survey results and evaluation results.
	The record should contain the information needed by "a data entry support tool established by chemSHERPA".
	Submit the survey results and evaluation results if KURODA requests.

6. KURODA Evaluations

6-1 Environmental Management System Evaluations

(1) Submission of self-evaluation

When KURODA considers initiating business with suppliers, we ask them to submit the self-evaluation of their approach to KURODA's requirements with "form 1e - Environmental Management System Survey Table" (Excel file).

If the production/manufacturing source of the final process differs depending on the product, please evaluate and submit for each location.

(2) Determination of business transactions

KURODA evaluates if the supplier can comply with '4-1 Environmental Management System Requirements' and '4-2 Product Requirements' based on the submitted results of the self-evaluation, and gives notice on the results. KURODA may ask suppliers for improvement if they do not comply with the requirements completely.

Prior to the determination, KURODA may visit suppliers for an interview survey to confirm the self-evaluation. (Visit survey)

(3) Renewal of determination

After initiating business with suppliers, KURODA will continue to ask for the results of the self-evaluation regularly (e.g. once a year). Based on the results, KURODA renews the determination.

6-2 Product Evaluations

6-2-1 Supplying Information Regarding Environmental Impact Substances

(1) Examine the chemicals in the products, and supply KURODA with "form 2e - Certificate of Nonuse of Banned Substances in Products". (Supply the "form 3e - Detailed statement on expected abolishment date of KURODA specified banned substances" if necessary.)

(2) As KURODA considers the adoption of particular products, if necessary, KURODA asks suppliers to provide information on environmental impact substances contained in the products using a data entry support tools such as chemSHERPA or a form similar to that.

(3) If the environmental impact substances contained in the products are changed due to changes in the design or production process, etc., it will be necessary to reevaluate the environmental impact substances contained in the product. Information regarding changes must be supplied promptly.

(Change Control)

6-2-2 Determination of procurement

KURODA evaluates if the products comply with '4-2 Product Requirements'. Products that meet all conditions can be procured and products that do not meet all conditions cannot be procured.

Note 6a: Self-Evaluation Checkpoints

KURODA may insist that the following implementation items be checked.

- Responsibility sharing and procedures for implementing the environmental management system
- Top Management declarations
- Objective and plan settings
- Appointment of management representative and communication of procedures

Note 6b: Obtaining Data Entry Support Tools

Access the chemSHERPA website, and download the data entry support tool and operation manual files.

chemSHERPA website: <https://chemsherpa.net/chemSHERPA/english/tool/>

Note 6c: Role of "Mechanisms for Investigating Environmental Impact Substances contained in Products"

To be performed on each product based on the information supplied using the product evaluation and examination tools (preferably chemSHERPA or a similar format). The reliability of this information is assured by suitable configuration and operation of the "Mechanisms for Investigating Environmental Impact Substances contained in Products".

6-3 Other

6-3-1 If the Business Partner is a Manufacturer

If the business partner is a manufacturer, instruct the producers of materials and substituent parts, or the partnering machine-shops to implement environmental management activities conforming to these standards, and check if KURODA requirements have been satisfied.

6-3-2 If the Business Partner is a Trading Company

If the business partner is a trading company, notify producers from whom products are purchased for delivery to KURODA of these standards, and instruct them to implement environmental management activities based on these standards. Further, gather information on the status of satisfaction of these standards from the producers from whom purchases are made, and supply the information to KURODA.

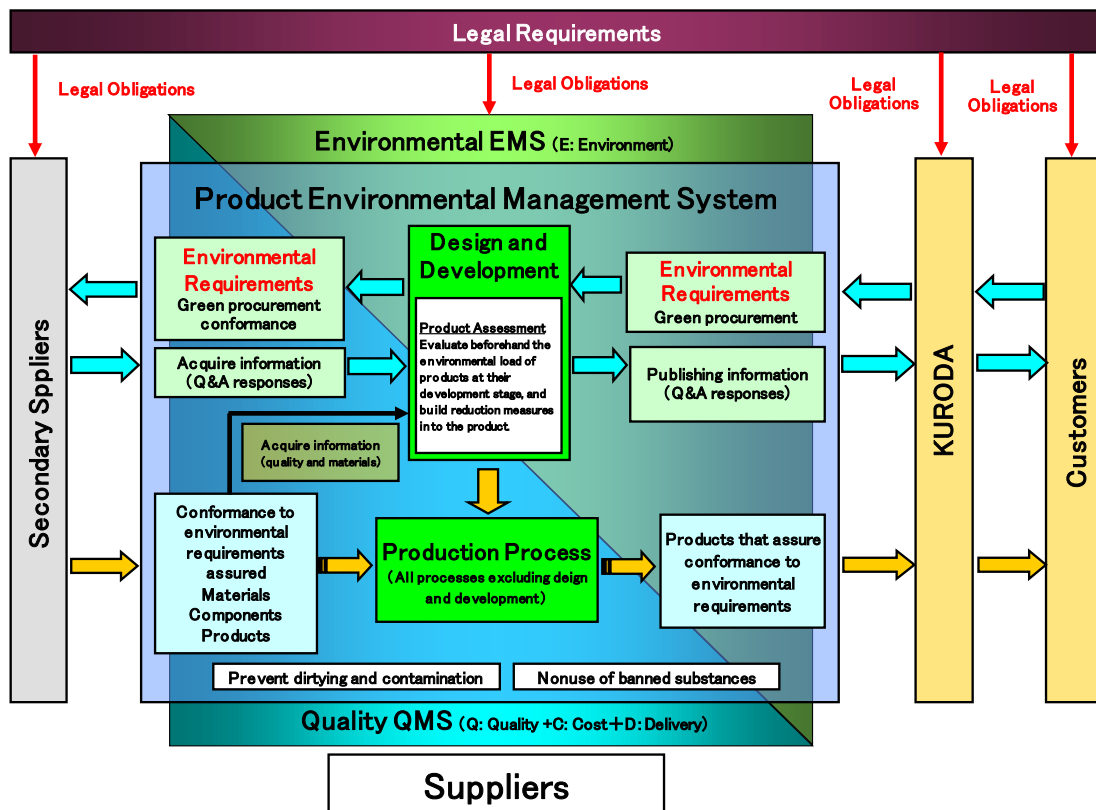
6-3-3 Requests to Secondary Suppliers of Components and Materials Specified by KURODA

If the business partner purchases components and materials specified by KURODA from secondary suppliers, even if KURODA does no business directly with the suppliers, it is requested that the suppliers implement the environmental management activities that conform to these standards.

6-3-4 Handling the Information Supplied

The supplied information shall be shared within KURODA, but not disclosed in any way outside the Group.

Product Environmental Management System Outline



Note 6d: Product Environmental Management System

This is the status that should be adopted to satisfy KURODA environmental requirements. There are both quality and environmental management systems, and the system creates products that assure conformance to the environmental requirements by implementing both systems together.

Environmental management system survey table (1/2)**KURODA Precision Industries Group**

KURODA Business Partner Code		Submission date
Company name (contact name)		
Representative's title and name		
TEL		
E-mail		

Name of the manufacturer, factory and office implementing the investigation		Preparing date
Representative's title and name		
TEL		
E-mail		
Preparer's name and title		
TEL		
E-mail		

※ Please write down the corresponding number and the necessary information.

1. Management system

No.	Evaluation standards	Action		KURODA's internal use
		Selection No.	Additional Information	
1	Certifications of ISO 14001 have been already acquired. *Suppliers having acquired certifications proceed to No.6. 1. Acquired 2. Preparing for the acquisition 3. Preparing but not starting 4. Not preparing		Certification organizations : Date of acquisition Expected date	
2	Corporate manager has stated the efforts for the environment. 1. Manager's environmental policy is disclosed 2. Planning to disclose 3. Not planing		Expected date	
3	A person engaging in a environment protection has been designated. 1. Environmental management person is designated 2. Planning the designation 3. Not planing		Expected date	
4	Improvement plan for the environment protection has been developed. 1. Improvement plan with purpose and goal has been developed. 2. Planning to develop the plan 3. Not planing		Expected date	
5	Emergency response system has been established. 1. Setting rules and training have been implemented. 2. Planning to set the rules 3. Not planing		Expected date	
6	Green procurement system has been established at business partner. 1. Green procurement system has been established 2. Planning to establish 3. Not planing		Expected date	
7	Your environmental actions have been published on the website. 1. Now publishing 2. Planning to publish 3. Not planing		Expected date	
8	ISO 9001 has been acquired. 1. Acquired 2. Preparing for the acquisition 3. Planning to but not starting 4. Not planing		Certification organizations : Date of acquisition Expected date of acquisition	

Environmental management system survey table (2/2)**KURODA Precision Industries Group****2. Corporate Social Responsibility**

№	Evaluation standards	Action		KURODA's internal use
		Selection No.	Expected date of acquisition	
1	Compliance program or its related rules have been set. 1. Rules were set. 2. Preparing to set the rules 3. Not planing		Expected date	
2	Measures to comply with laws and regulations have been taken 1. Measures have been taken 2. Preparing to take measures 3. Not planing		Expected date	
3	You have a section of complaint handling. 1. The section has been instituted. 2. Preparing to institute the section 3. Not planing		Expected date	

3. Efforts for the products

№	Evaluation standards	Action		KURODA's internal use
		Selection No.	Expected date of acquisition	
1	Regarding the controlled substances at the manufacturing process 1. We do not use 2. Now we are using but are due to stop using 3. We are using. 4. We do not have plan to stop using		Expected date Controlled substance :	
2	Regarding banned substances 1. We do not use 2. Now we are using but are due to stop using 3. Under investigation 4. We do not have plan to stop using		Expected date Abolished substance : Expected date Substance continuing to use :	
3	Regarding the energysaving action 1. We are implementing 2. Planning to implement 3. Not planing		Expected date	
4	Regarding the reduction of waste material 1. We are implementing 2. Planning to implement 3. Not planing		Expected date	
5	Regarding the development of environment-conscious product 1. We are implementing 2. Planning to implement 3. Not planing		Expected date	
6	Regarding the reduction of the packing materials 1. We are implementing 2. Planning to implement 3. Not planing		Expected date	
7	Regarding the improved transportation 1. We are implementing 2. Planning to implement 3. Not planing		Actual Example : Expected date	

* Please write down about your environmental actions other than the above items.

Certificate of Nonuse of Banned Substances in Products

Our company declares that Banned Substances described in the latest version of the “[Appendix Table1](#) of KURODA Precision Industries Group Green Procurement Standards” are not contained (excluding [RoHS Exemption](#)) in the materials, components, and products currently delivered to the KURODA Precision Industries Group, nor will be contained in the future.

Date: _____
Address: _____
Company Name: _____
Title and Job Description: _____
Name: _____

Note: Attachments (Y / N)

Note1: If there is any product whose abolishment of the Banned Substances is delayed, fill in the “Attachment 3e: Detailed statement on expected abolishment date of KURODA specified banned substances” (Excel file) and submit it to KURODA.

Note2: Please enter in the comments if there are any special issues, such as being [RoHS Exemption](#).

Comments (Implementation timing of the analysis [in principle within the past two years], analysis method, etc.)	
Contact Name	
Job Title	
Phone	
E-mail	

Kuroda use only

1. Banned Substances

Copared to v3.2 Additions are in red Corrections are in blue

(1) RoHS Directive 2011/65/EU(6 substances) and (EU)2015/863(4 substances) [Product]

No.	Substances	Threshold	
		RoHS	ELV
1	Lead (Pb)	1000 ppm	1000 ppm
2	Mercury (Hg)	1000 ppm	1000 ppm
3	cadmium (Cd)	100 ppm	100 ppm
4	Hexavalent chromium (Cr ⁶⁺)	1000 ppm	1000 ppm
5	Polybrominated biphenyl (PBBs)	1000 ppm	-
6	Polybrominated diphenyl ether (PBDEs)	1000 ppm	-
7	Di-2-ethylhexyl phthalate (DEHP)	1000 ppm	-
8	Butyl benzyl phthalate (BBP)	1000 ppm	-
9	Di-n-butyl phthalate (DBP)	1000 ppm	-
10	Diisobutyl phthalate (DIBP)	1000 ppm	-

(2) Substances destructive to Ozone Layer [Process]

No.	Substances
1	CFC
2	Halon
3	Carbon tetrachloride
4	1,1,1-Trichloroethane
5	HCFC
6	HBFC
7	Methyl bromide
8	Bromochloromethane

(3) Pollutant for Atmosphere [Process]

No.	Substances
1	Asbestos

(4) Substances under the Chemical Substances Control Law in Japan [Process]

No.	Substances http://www.safe.nite.go.jp/jcheck/list6.action?category=211&request_locale=en
1	Polychlorinated biphenyls (PCB)
2	Polychlorinated naphthalenes (only those containing 2 or more chlorine atoms in the molecule)
3	Hexachlorobenzene
4	Aldrin
5	Dieldrin
6	Endrin
7	DDT
8	Chlordane
9	Bis(tributyltin)oxide
10	N, N'-ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine, or N, N'-dixylyl-p-
11	2, 4, 6-tri-tert-butylphenol
12	Toxaphene
13	Mirex
14	Kelthane
15	Hexachlorobuta-1, 3-diene
16	2-(2H-1, 2, 3-benzotriazol-2-yl)-4, 6-di-tert-butylphenol
17	PFOS or its salts
18	PFOSF
19	Pentachlorobenzene
20	α-hexachlorocyclohexane
21	β-hexachlorocyclohexane

(4) Substances under the Chemical Substances Control Law in Japan [Process]

No.	Substances
22	γ -hexachlorocyclohexane
23	Chlordecone
24	Hexabromobiphenyl
25	Tetrabromodiphenyl ether
26	pentabromodiphenyl ether
27	Hexabromodiphenyl ether
28	Heptabromodiphenyl ether
29	Endosulfan
30	Hexabromocyclododecane
31	Pentachlorophenol, its salts or esters
32	Polychlorinated normal paraffin (It is limited that the number of carbon is 10 to 13 and the content of chlorine is more than 48% of the total weight.)
33	Decabromodiphenyl ether

(5) Hazardous substances under the Industrial Safety and Health Act in Japan [Process]

No.	Substances
1	Yellow phosphorus match
2	Benzidine and its salts
3	4-Aminobiphenyl and its salts
4	Asbestos
5	4-Nitrobiphenyl and its salts
6	Bis(chloromethyl)ether
7	β -Naphthylamine and its salts
8	Gum containing benzene, in which the volume of contained benzene exceeds 5 % of the solvent (including diluents) of the said gum

(6) EU Commission, International Maritime Association, Stockholm Convention, EU POPs, US TSCA [Product]

No.	Substances (Group)	Target or Application
1	Asbestos	Electrical insulators, fillers, gaskets
2	Azo dyes and pigments	Wire stripper colorants and color fixers
3	Substances destructive to Ozone Layer	Coolants
4	Polychlorinated biphenyls (PCB)	Insulating oils, lubricants, fire-resistant chemicals
5	Polychlorinated naphthalenes	Lubricants, paints, resin stabilizers, fire-resistant chemicals
6	Radioactive materials	Packaging and wrapping materials
7	Short-chain chlorinated paraffin	Fire-resistant chemicals and plastics
8	Tributyltins (TBTs). triphenyltins (TPTs)	Stabilizers, anti-oxidants, and anti-aging chemicals
9	Bis (tributyltins)= oxides	Paints and colorants
10	Perfluoro(octane-1-sulfonic acid) (Synonym: PFOS) or its salts	Surface protection products such as carpet and clothing treatments, coating for paper and cardboard
11	Dimethyl fumarate (DMF)	Dermatological agents for treatment of psoriasis and skin diseases
12	2- (2H-1,2,3-benzotriazol-2-yl) -4,6-di-tert-butylphenol	Additives for fibers, additives for resins
13	Dibutyltin compound (DBT) and dioctyltin compound (DOT)	Catalyst in the polymerization of polylactide plastics
14	Formaldehyde	Antiseptic, disinfectant, histologic fixative
15	Hexachlorobenzene	Fungicide
16	PFOA, its salts and PFOA-related substances	Surfactants, coating agents, water and oil repellents
17	Decabromodiphenyl ether (DecaBDE)	Plastic enclosures, wire and cables
18	Phenol, isopropylated phosphate (PIP (3:1))	Lubricants, greases, adhesives, sealants, hydraulic fluids
19	2, 4, 6-Tris(tert-butyl)phenol (2, 4, 6-TTBP)	Antioxidant for fuel, oil, gasoline or lubricant
20	Pentachlorothiophenol (PCTP)	Peptizer for synthetic and natural rubbers
21	Hexachlorobutadiene (HCBD)	Solvent

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
1	Triethyl arsenate
2	Anthracene
3	4,4'- Diaminodiphenylmethane (MDA)
4	Dibutyl phthalate (DBP)
5	Cobalt dichloride
6	Diarsenic pentaoxide
7	Diarsenic trioxide
8	Sodium dichromate
9	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)
10	Bis (2-ethylhexyl)phthalate (DEHP)
11	Hexabromocyclododecane (HBCDD) and all major diastereoisomers identified: (Alpha-,Beta-,Gamma-)
12	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
13	Bis(tributyltin)oxide (TBTO)
14	Lead hydrogen arsenate
15	Benzyl butyl phthalate (BBP)
16	Anthracene oil
17	Anthracene oil, anthracene paste, distn.lights
18	Anthracene oil, anthracene paste, anthracene fraction
19	Anthracene oil, anthracene-low
20	Anthracene oil, anthracene paste
21	Coal tar pitch, high temperature
22	2,4-Dinitrotoluene
23	Diisobutyl phthalate
24	Lead chromate
25	Lead chromate molybdate sulphate red (C.I Pigment Red 104)
26	Lead sulfochromate yellow (C.I Pigment Yellow 34)
27	Tris(2-chloroethyl)phosphate
28	Acrylamide
29	Trichloroethylene
30	Boric acid
31	Disodium tetraborate, anhydrous
32	Tetraboron disodium heptaoxide, hydrate

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
33	Sodium chromate
34	Potassium chromate
35	Ammonium dichromate
36	Potassium dichromate
37	Cobalt(II) sulphate
38	Cobalt(II) dinitrate
39	Cobalt(II) carbonate
40	Cobalt(II) diacetate
41	2-Methoxyethanol
42	2-ethoxyethanol
43	Chromium trioxide
44	Acids generated from chromium trioxide and their oligomers
	Chromic acid
	Dichromic acid
	Oligimers of chromic acid and dichromic acid
45	2-ethoxyethyl acetate
46	Strontium chromate
47	1,2-Benzenedicarboxylic acid, di-C7-11-branched and linear alkyl esters (DHNUP)
48	Hydrazine
49	1-methyl-2-pyrrolidone
50	1,2,3-trichloropropane
51	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich (DIHP)
52	Dichromium tris(chromate)
53	Potassium hydroxyoctaoxidizincatedi-chromate
54	Pentazinc chromate octahydroxide
55	Aluminosilicate Refractory Ceramic Fibres (RCF)
56	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)
57	Formaldehyde, oligomeric reaction products with aniline (technical MDA)
58	Bis(2-methoxyethyl) phthalate
59	2-Methoxyaniline; o-Anisidine

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
60	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)
61	1,2-Dichloroethane
62	Bis(2-methoxyethyl) ether
63	Arsenic acid
64	Calcium arsenate
65	Trilead diarsenate
66	N,N-dimethylacetamide [DMAC]
67	2,2'-dichloro-4,4'-methylenedianiline [MOCA]
68	Phenolphthalein
69	Lead azide, Lead diazide
70	Lead styphnate
71	Lead dipicrate
72	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)
73	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)
	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Blue 26)
75	[4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)
76	α,α -bis[4-(dimethylamino)phenyl]-4 (phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)
77	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol (C.I. Solvent Violet 8)
78	Diboron trioxide, boric oxide
79	Formamide
80	Lead(II) bis(methanesulfonate)
81	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's Base)

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
82	4,4'-bis(dimethylamino)benzophenone (Michler's Ketone)
83	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)
84	β -TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)
85	Pyrochlore, antimony lead yellow
86	6-methoxy-m-toluidine (p-cresidine)
87	Henicosaflluoroundecanoic acid
88	Hexahydromethylphthalic anhydride
	Hexahydro-4-methylphthalic anhydride
	Hexahydro-1-methylphthalic anhydride
	Hexahydro-3-methylphthalic anhydride
89	Cyclohexane-1,2-dicarboxylic anhydride
	cis-cyclohexane-1,2-dicarboxylic anhydride
	trans-cyclohexane-1,2-dicarboxylic anhydride
90	Dibutyltin dichloride (DBTC)
91	Lead bis(tetrafluoroborate)
92	Lead dinitrate
93	Silicic acid, lead salt
94	4-Aminoazobenzene
95	Lead titanium zirconium oxide
96	Lead monoxide (lead oxide)
97	o-Toluidine
98	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine
99	Silicic acid, barium salt, lead-doped
100	Trilead bis(carbonate)dihydroxide
101	Furan

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
102	N,N-dimethylformamide
103	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated [covering well-defined substances and UVCB substances, polymers and homologues]
104	4-Nonylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]
105	4,4'-methylenedi-o-toluidine
106	Diethyl sulphate
107	Dimethyl sulphate
108	Lead oxide sulfate
109	Lead titanium trioxide
110	Acetic acid, lead salt, basic
111	[Phthalato(2-)]dioxotrilead
112	Bis(pentabromophenyl) ether (decabromodiphenyl ether; DecaBDE)
113	N-methylacetamide
114	Dinoseb (6-sec-butyl-2,4-dinitrophenol)
115	1,2-Diethoxyethane
116	Tetralead trioxide sulphate
117	N-pentyl-isopentylphthalate
118	Dioxobis(stearato)trilead
119	Tetraethyllead
120	Pentalead tetraoxide sulphate
121	Pentacosafuorotridecanoic acid
122	Tricosafuorododecanoic acid
123	Heptacosafuorotetradecanoic acid
124	1-bromopropane (n-propyl bromide)
125	Methoxyacetic acid
126	4-methyl-m-phenylenediamine (toluene-2,4-diamine)
127	Methyloxirane (Propylene oxide)
128	Trilead dioxide phosphonate
129	o-aminoazotoluene

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
130	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear
131	4,4'-oxydianiline and its salts
132	Orange lead (lead tetroxide)
133	Biphenyl-4-ylamine
134	Diisopentylphthalate
135	Fatty acids, C16-18, lead salts
136	Diazene-1,2-dicarboxamide (C,C'-azodi(formamide))
137	Sulfurous acid, lead salt, dibasic
138	Lead cyanamidate
139	Cadmium
140	Ammonium pentadecafluorooctanoate (APFO)
141	Pentadecafluorooctanoic acid (PFOA)
142	Dipentyl phthalate (DPP)
143	4-Nonylphenol, branched and linear, ethoxylated [substances with a linear and/or branched alkyl chain with a carbon number of 9 covalently bound in position 4 to phenol, ethoxylated covering UVCB- and well-defined substances, polymers and homologues, which include any of the individual isomers and/or combinations thereof]
144	Cadmium oxide
145	Cadmium sulphide
146	Disodium 3,3'-[(1,1'-biphenyl)-4,4'-diylbis(azo)]bis(4-aminonaphthalene-1-sulphate) (CI Direct Red 28)
147	Disodium 4-amino-3-[[4'-[(2,4-diaminophenyl)azo]][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6-(phenylazo)naphthalene-2,7-disulphonate (CI Direct Black 38)
148	Dihexyl phthalate
149	Imidazolidine -2-thione ; 2-imidazoline-2-thiol
150	Lead di(acetate)
151	Trixylyl phosphate
152	Cadmium chloride

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
153	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear
154	Sodium peroxometaborate
155	Sodium perborate; perboric acid, sodium salt
156	Cadmium fluoride
157	Cadmium sulphate
158	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)
159	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)
160	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (DOTE)
161	reaction mass of 2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate and 2-ethylhexyl 10-ethyl-4-[[2-[(2-ethylhexyl)oxy]-2-oxoethyl]thio]-4-octyl-7-oxo-8-oxa-3,5-dithia-4-stannatetradecanoate (reaction mass of DOTE and MOTE)
162	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyldiesters with $\geq 0.3\%$ of dihexyl phthalate (EC No. 201-559-5)
163	5-sec-butyl-2-(2,4-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [1], 5-sec-butyl-2-(4,6-dimethylcyclohex-3-en-1-yl)-5-methyl-1,3-dioxane [2] [covering any of the individual stereoisomers of [1] and [2] or any combination thereof]
164	Nitrobenzene
165	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol(UV-327)
166	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-butyl)phenol(UV-350)
167	1,3-propanesultone

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
168	Perfluorononan-1-oic acid (2,2,3,3,4,4,5,5,6,6,7,7,8,8,9,9,9-heptadecafluorononanoic acid and its sodium and ammonium salts)
169	Benzo[def]chrysene (Benzo[a]pyrene)
170	4,4'-isopropylidenediphenol (bisphenol A; BPA)
171	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts
172	p-(1,1-dimethylpropyl)phenol
173	4-heptylphenol, branched and linear [substances with a linear and/or branched alkyl chain with a carbon number of 7 covalently bound predominantly in position 4 to phenol, covering also UVCB- and well-defined substances which include any of the individual isomers or a combination thereof]
174	Perfluorohexane-1-sulphonic acid and its salts
175	Chrysene
176	Benz[a]anthracene
177	Cadmium nitrate
178	Cadmium hydroxide
179	Cadmium carbonate
180	1,6,7,8,9,14,15,16,17,17,18,18- Dodecachloropentacyclo [12.2.1.16,9.02,13.05,10] octadeca-7,15-diene ("Dechlorane Plus"™) [covering any of its individual anti- and syn-isomers or any combination thereof]
181	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with ≥0.1% w/w 4-heptylphenol, branched and linear
182	Octamethylcyclotetrasiloxane (D4)
183	Decamethylcyclopentasiloxane (D5)
184	Dodecamethylcyclohexasiloxane (D6)

(7)-1 REACH SVHC until 24 th (211 substances) confirmed in Jan 2021

[Process] [Product]

No.	Substances
185	Lead
186	Disodium octaborate
187	Benzo[ghi]perylene
188	Terphenyl hydrogenated
189	Ethylenediamine (EDA)
190	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)
191	Dicyclohexyl phthalate (DCHP)
192	2,2-bis(4'-hydroxyphenyl)-4-methylpentane
193	Benzo[k]fluoranthene
194	Fluoranthene
195	Phenanthrene
196	Pyrene
197	1,7,7-trimethyl-3-(phenylmethylene)bicyclo[2.2.1]heptan-2-one
198	Tris(4-nonylphenyl, branched and linear) phosphite (TNPP) with $\geq 0.1\%$ w/w of 4-nonylphenol, branched and linear (4-NP)
199	4-tert-butylphenol
200	2-methoxyethyl acetate
201	2,3,3,3-tetrafluoro-2-(heptafluoropropoxy)propionic acid, its salts and its acyl halides covering any of their individual isomers and combinations thereof
202	Perfluorobutane sulfonic acid (PFBS) and its salts
203	Diisohexyl phthalate
204	2-methyl-1-(4-methylthiophenyl)-2-morpholinopropan-1-one
205	2-benzyl-2-dimethylamino-4'-morpholinobutyrophenone
206	Dibutylbis(pentane-2,4-dionato-O,O')tin
207	Butyl 4-hydroxybenzoate
208	2-methylimidazole
209	1-vinylimidazole
210	bis(2-(2-methoxyethoxy)ethyl) ether
211	Diocetyl tin dilaurate, stannane, dioctyl-, bis(coco acyloxy) derivs., and any other stannane, dioctyl-, bis(fatty acyloxy) derivs. wherein C12 is the predominant carbon number of the fatty acyloxy moiety

(7)-2 REACH SVHC 25th (8 substances) confirmed in July 2021

[Process] [Product]

No.	Substances
212	Phenol, alkylation products (mainly in para position) with C12-rich branched or linear alkyl chains from oligomerisation, covering any individual isomers and/ or combinations thereof (PDDP)
213	Orthoboric acid, sodium salt
214	Medium-chain chlorinated paraffins (MCCP) [UVCB substances consisting of more than or equal to 80% linear chloroalkanes with carbon chain lengths within the range from C14 to C17]
215	Glutaral
216	4,4'-(1-methylpropylidene)bisphenol; (bisphenol B)
217	2-(4-tert-butylbenzyl)propionaldehyde and its individual stereoisomers
218	2,2-bis(bromomethyl)propane 1,3-diol (BMP) 2,2-dimethylpropan-1-ol, tribromo derivative 3-bromo-2,2-bis(bromomethyl)-1-propanol (TBNPA) 2,3-dibromo-1-propanol (2,3-DBPA)
219	1,4-dioxane

Note1 :

All SVHC after the 26th to be added in the future will be subject to management.

KURODA will not add them to this appendix each time.

For chemical substances to be added, please refer the following URL.

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

Note2 :

Companies supplying articles containing substances of very high concern (SVHCs) on the Candidate List in a concentration above 0.1% weight by weight (w/w) on the EU market have to submit information on these articles to ECHA, as from 5 January 2021. If you confirm the content, please notify KURODA of it ASAP.

2. Controlled Substances

(1) Substances that control content status

[Product]

No.	Substances	Control Threshold
1	Antimony and its compounds	1,000ppm
2	Arsenic and its compounds	1,000ppm
3	Beryllium and its compounds	1,000ppm
4	Bismuth and its compounds	1,000ppm
5	Brominated flame retardants (excluding PBBs and PBDEs)	1,000ppm
6	Nickel and its alloys	1,000ppm
7	Phthalate esters	1,000ppm
8	Selenium and its alloys	1,000ppm
9	Polyvinyl chloride (PVC)	1,000ppm

(2) Substances for which content is prohibited in packaging materials

[Product]

No.	Substances	Control Threshold
1	4 metals (cadmium, lead, mercury, hexavalent chromium) contained in packaging materials	100 ppm in total of 4 metals