

Green Procurement Guidelines

2nd Edition



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HIOKI E.E. CORPORATION

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1. Foreword

Thank you for your continued support and cooperation. In recent years, global warming, loss of biodiversity, and the depletion of water and energy resources have put the global environment in serious danger. As environmental problems become more serious due to economic development, the role that companies play in environmental protection is becoming increasingly important.

At Hioki, we are aware of the environmental impact of our products and our activities in the development, production, sales and service of electric measuring instruments. As such, we are conducting company-wide environmentally-friendly corporate activities to reduce and harmonize our impact on the local surroundings and the irreplaceable global environment, in accordance with our corporate philosophy of "Contribution to Society."

With this in mind, we have developed these Green Procurement Guidelines in order to manufacture environmentally-friendly products, and with the cooperation of our suppliers, we have been promoting activities to reduce environmental impact in the procurement of materials. We have reviewed these guidelines in light of social regulations and industry trends, leading to the publishing of the second edition.

The cooperation of our suppliers is essential for promoting green procurement activities. We would like to further strengthen our partnerships with suppliers who adhere to these guidelines and work together to address environmental issues.

We would like to ask our suppliers to understand the aims and importance of our efforts in this mission, and we would like to ask for their continued support and cooperation.

HIOKI E. E. CORPORATION
Materials Procurement Division

2. Regarding the Green Procurement Guidelines

-1. Outline

These guidelines define standards for environmental considerations (management of chemical substances, eco-design, disposal, etc.) when procuring the raw materials and parts used in Hioki products.

They outline the minimum requirements that must be followed for green procurement and the “evaluation of suppliers’ environmental efforts” that we would like you to consider.

-2. Purpose

The purpose of these guidelines is to comply with the environmental laws and regulations of the countries in which we operate, to procure materials that are environmentally - friendly, to reduce the amount of hazardous chemical substances contained in them, and to collect information to enable us to disclose information on the substances contained in our products to downstream users, all in accordance with our quality and environmental policy.

-3. Scope of Application

This policy applies to raw materials, parts, auxiliary materials, etc. used in the production of products delivered to us, as well as to all the suppliers who deliver these products.

OEM products and resale products under the Hioki brand are also treated as parts in our system. This also applies to consumables and supplementary materials used in-house.

3. Requests to our suppliers

【When the business partner is a manufacturer】

Suppliers are requested to instruct the manufacturers of parts and materials procured when manufacturing items that will be delivered to Hioki, as well the secondary processors involved, to engage in environmental conservation activities in accordance with these standards and to confirm that the requirements are met.

【When the business partner is a trading company】

We ask that suppliers convey these standards to the manufacturers of products and parts delivered to us and guide them in working on environmental conservation activities in accordance with these standards. We also request that you collect information on the progress of these standards from the suppliers and relay it to us.

-1. Promotion of Environment Conservation at Suppliers

We would like to ask our suppliers to actively engage in environment conservation activities (establishing environmental policies, system maintenance, and conducting training, etc.)

-2. Establishing a Management System

It is necessary to clarify management matters and establish a system within suppliers to ensure the appropriate and continuous management of chemical substances. Hioki may check the management status of its suppliers when managing chemical substances in accordance with these procurement guidelines, and we ask for their cooperation in this regard.

Recommended management systems include: ISO 14001, Eco-Action, etc.

-3. Management of Environmentally Hazardous Substances in Procured Items

Regarding prohibited and controlled substances specified by our company, please refer to the Appendix for more details about the management of environmentally hazardous substances (not using prohibited substances, controlled substance usage reports, etc.). In addition to asking for your cooperation in surveys and check requests from Hioki, we may also ask you to conduct such activities at the request of our customers.

Prohibited Substances (Appendix)

These are substances that have been prohibited from intentional use by domestic and international laws and regulations. For regulated substances, exemptions stipulated in the laws and regulations are considered to be the limit.

This applies to the Level A prohibited substances, substances banned by the REACH regulation and other substances that may be regulated in the future shown in the table.

[Applicable laws and regulations]

While the prohibited substances in this list have been selected in accordance with domestic and international laws, the use and or inclusion of any substances prohibited by law that are not listed here is also forbidden.

[Domestic]	
1	Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. (Class I Specified Chemical Substances)
2	Foreign Exchange and Trade Control Act (Export Trade Control Ordinance)
3	Industrial Safety and Health Act
4	Laws concerning the protection of the ozone layer through regulation of specified substances (Substances specified under the law)
[International]	
1	EU-RoHS Directive (Restriction of 10 Hazardous Substances)
2	EU-REACH regulations (restricted substances, permitted substances, SVHC substances)
3	European Parliament and Council Directives on Packaging and Packaging Waste
4	EU-CLP regulations (mainly labeling regulations)
5	Dot-Flank method (no usage of conflict minerals)

* The above includes laws and regulations applicable to the controlled substances listed below in (2).

【Use of Prohibited Substances (prerequisites)】

If a prohibited substance is found, delivery will be stopped immediately. Even if there is no specification in the drawings or order form, please supply items that do not contain banned substances. Please pay particular attention to alternative parts suggestions. If the restricted substances are found to be included in items after delivery, please contact the Materials Procurement Department immediately.

- 1. Unless otherwise specified by Hioki.
- 2. Excluding usage within the exemptions. (please refer to the appendix of the RoHS Restriction for exemptions)

Controlled Substances (Appendix)

This applies to the Level B controlled substances, SVHCs under the REACH regulation and other substances that may be added in the future as shown in the table. (Other controlled substances related to applicable laws and regulations may be added as appropriate)

【Use of Controlled Substances】

Although these substances are not currently prohibited by laws or regulations, their use may be prohibited by amendments to the law. As such, we recommend that you switch to an alternative substance wherever possible and monitor any use of such substances.

-4. Submission of Environmentally Hazardous Substances Surveys

Please complete the survey regarding the usage of environment-related substances using the chemSHERPA format. Please contact us if you have any issues. The contents of the survey may vary depending on the type of goods to be delivered and the requirements for the survey.

The use of 3TG (tin, tantalum, tungsten, gold) may also be requested in CFSI or other formats as required by the Dodd-Frank Act. In addition, other investigations concerning laws and regulations that stipulate the provision of content information may be conducted. In such cases, please submit the delivered good promptly (in accordance with the specified deadline).

4. Appendix (Revision History)

Issued on May.10, 2013.

Revised on Jan. 1, 2019.

- * Please note that these guidelines may be revised without notification depending on domestic and overseas laws, regulations, and social trends.

Restricted Substances and Controlled Substances

	No.	Substance Name	Used in	Threshold*1	
Level A Restricted Substances	1	Bis (tributyl tins) oxide (TBTO)	Paint, Pigment	1,000ppm	
	2	Tributyl tins Triphenyl Tin	Stabilizers, anti-oxidation and aging agents	1,000ppm	
	3	Polychlorinated Biphenyls (PCBs)	Insulating oil, lubricating oil, flame retardant	intentional addition	
	4	Polychlorinated naphthalene (chlorine number is 3 or more)	Lubricants, paints, resin stabilizers, flame retardants	intentional addition	
	5	Short Chain Chlorinated Paraffins	Fire retardant, plasticizer	1,000ppm	
	6	Asbestos	Electrical insulator, filler, gasket	intentional addition	
	7	Azo dyes and pigment forming certain amines	Pigments and colorants for electric wire coatings *Limited to areas of sustained contact with the human body	30ppm	
	8	Ozone depleting substances	Refrigerant	intentional addition	
	9	Radioactive material	Packaging or wrapping material	intentional addition	
	10	DBT (dibutyltin compound) DOT (dioctyltin compound)	Stabilizer for PVC, curing catalyst for silicone resin and urethane resin	1,000ppm	
	RoHS 10 Material	11	Cadmium and its compounds *2	Cadmium contained in all alloys containing zinc (brass, zinc die-casting, lead-free solder, etc.), plating, plastics, rubber, paint, etc.	100ppm *3
		12	Lead and its compounds *2	Lead in all but various alloys, solders and exemptions	1,000ppm *3
		13	Mercury and its compounds *2	All mercury contained in light bulbs other than compact fluorescent lamps and straight fluorescent lamps	1,000ppm *3
		14	Hexavalent chromium compounds *2	All hexavalent chromium contained in chromate treatment, plating, paint, etc. Metal chromium and chromium in alloys are not covered	1,000ppm *3
		15	Polybrominated biphenyls (PBBs)	PBB contained in all flame retardants, etc.	1,000ppm *3
		16	Polybrominated diphenyl ethers (PBDE)	PBDE contained in all flame retardants, etc.	1,000ppm *3
		17	DEHP (di-2-ethylhexyl phthalate) *4	Plasticizers, pigments, dyes, paints, adhesives, etc.	1,000ppm *3
		18	BBP (butylbenzyl phthalate) *4	Plasticizers, pigments, dyes, paints, adhesives, etc.	1,000ppm *3
		19	DBP (Di-n-butyl phthalate) *4	Plasticizers, pigments, dyes, paints, adhesives, etc.	1,000ppm *3
		20	DIBP (diisobutyl phthalate) *4	Plasticizers, pigments, dyes, paints, adhesives, etc.	1,000ppm *3
Level B Controlled Substances	21	Antimony and its compounds	Pigment, paint, lead-free solder, etc.	*5	
	22	Arsenic and its compounds	Pigments, paints, dyes, flame retardants	*5	
	23	Beryllium and its compounds	Ceramics, alloys, catalysts, and solders	*5	
	24	Bismuth and Bismuth Compounds	Glass, lead-free solder, free-cutting aluminum materials	*5	
	25	Nickel and Nickel Compounds	Plating, paint, pigment (excluding alloys)	*5	
	26	Selenium and its compounds	Pigment, paint	*5	
	27	Other (other than PBBs and PBDE) Brominated flame retardants	Flame retardant	*5	
	28	Polyvinyl chloride (PVC)	Resin, cord coating, plasticizer	*5	

*1 The threshold value in this table is the inclusion rate in the homogeneous material.

*2 EU-Packaging Directive 4 Substances <100ppm by weight per package (lead, mercury, cadmium, hexavalent chromium)

*3 Use of exemptions is subject to RoHS Directive.

*4 Delivery will be prohibited from April 1, 2019.

*5 The inclusion rate will be asked to report.

REACH Regulations SVHC Substance List

● the 1st SVHC listing 15 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	ジクロロコバルト(Ⅱ)	Cobalt dichloride	7646-79-9
2	重クロム酸ニナトリウムニ水和物	Sodium dichromate dehydrate	7789-12-0
3	五酸化ニヒ素	Diarsenic pentaoxide	1303-28-2
4	三酸化ニヒ素	Diarsenic trioxide	1327-53-3
5	ヒ酸水素鉛	Lead hydrogen arsenate	7784-40-9
6	ヒ酸トリエチル	Triethyl arsenate	15606-95-8
7	フタル酸ジブチル	Dibutyl phthalate	84-74-2
8	フタル酸ビス(2-エチルヘキシル)	Bis(2-ethyl(hexyl)phthalate) (DEHP)	117-81-7
9	フタル酸ベンジルブチル	Benzyl butyl phthalate	85-68-7
10	アントラセン	Anthracene	120-12-7
11	ビス(トリブチルスタンニル)オキシド	Bis(tributyltin) oxide	56-35-9
12	ムスクキシレン	5-tert-butyl-2,4,6-trinitro-m-xylene (musk xylene)	81-15-2
13	ヘキサブロモシクロドデカン	Hexabromocyclododecane (HBCDD)	25637-99-4
14	一部塩化パラフィン(C10-C13)	Alkanes, C10-13, chloro (Short Chain Chlorinated Paraff)	85535-84-8
15	4, 4'-メチレンビスアニリン	4,4'-Diaminodiphenylmethane	101-77-9

● the 2nd SVHC listing 15 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	2,4-ジニトロトルエ	2,4-Dinitrotoluene	121-14-2
2	アントラセンオイル	Anthracene oil	90640-80-5
3	アントラセンオイル、アントラセンペースト、軽留分	Anthracene oil, anthracene paste, distn. Lights	91995-17-4
4	アントラセンオイル、アントラセンペースト、アントラセン留分	Anthracene oil, anthracene paste, anthracene fraction	91995-15-2
5	アントラセンオイル	Anthracene oil, anthracene-low	90640-82-7
6	アントラセンオイル、アントラセンペースト	Anthracene oil, anthracene paste	90640-81-6
7	フタル酸ジイソブチル	Diisobutyl phthalate	84-69-5
8	アルミノケイ酸、耐火性セラミック繊維	Aluminosilicate, Refractory Ceramic Fibres	--
9	ジルコニアアルミノケイ酸、耐火性セラミック繊維	Zirconia Aluminosilicate, Refractory Ceramic Fibres	--
10	クロム酸鉛	Lead chromate	7758-97-6
11	硫酸モリブデン酸クロム酸鉛、モリブデン赤、C.I ピグメントレッド104	Bis(tributyltin)	12656-85-8
		Lead chromate molybdate sulfate red (C.I. Pigment Red104)	
12	黄鉛、C.I ピグメントイエロー34	Lead sulfochromate yellow (C.I. Pigment Yellow 34)	1344-37-2
13	2-クロロエチル	Tris(2-chloroethyl)phosphate	115-96-8
14	高温コールタールピッチ	Coal tar pitch, high temperature	65996-93-2
15	アクリルアミド	Acrylamide	79-06-1

REACH Regulations SVHC Substance List

● the 3rd SVHC listing 8 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	トリクロロエチレン、トリクレン	Trichloroethylene	79-01-6
2	ホウ酸	Boric acid	10043-35-3
			11113-50-1
3	四ホウ酸ナトリウム	Disodium tetraborate	1303-96-4
			1330-43-4
			12179-04-3
4	四ホウ酸二ナトリウム	Tetraboron disodium heptaoxide	12267-73-1
5	クロム酸ナトリウム	Sodium chromate	7775-11-3
6	クロム酸カリウム	Potassium chromate	7789-00-6
7	二クロム酸アンモニウム	Ammonium dichromate	7789-09-5
8	二クロム酸カリウム	Potassium dichromate	7778-50-9

● the 4th SVHC listing 8 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	硫酸コバルト(II)	Cobalt(II) sulphate	10124-43-3
2	硝酸コバルト(II)	Cobalt(II) dinitrate	10141-05-6
3	炭酸コバルト(II)	Cobalt(II) carbonate	513-79-1
4	酢酸コバルト(II)	Cobalt(II) diacetate	71-48-7
5	2-メトキシエタノール、メチルセロソルブ	2-Methoxyethanol	109-86-4
6	2-エトキシエタノール、セロソルブ	2-Ethoxyethanol	110-80-5
7	三酸化クロム	Chromium trioxide	1333-82-0
8	三酸化クロムおよびそのオリゴマーから生成される酸	Potassium	7738-94-5
	(クロム酸、ニクロム酸・重クロム酸、クロム酸・ニクロム酸のオリゴマー)	Chromic acid, Dichromic acid, Oligomers of chromic acid dichromic acid	13530-68-2

● the 5th SVHC listing 7 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	酢酸2-エトキシエチル	2-ethoxyethyl acetate	111-15-9
2	クロム酸ストロンチウム	Strontium chromate	7789-06-2
3	1,2-ベンゼンジカルボン酸、炭素数7-11の分岐および直鎖アルキルエステル類	1,2-Benzenedicarboxylic acid, di-C7-11-branched and Linear alkyl esters	68515-42-4
4	ヒドラジン	Hydrazine	7803-57-8
			302-01-2
5	1-メチル-2-ピロリドン	1-methyl-2-pyrrolidone	872-50-4
6	1,2,3-トリクロロプロパン	1,2,3-trichloropropane	96-18-4
7	1,2-ベンゼンジカルボン酸、炭素数7の側鎖炭化水素を主成分とする	1,2-Benzenedicarboxylic acid, di-C6-8-branched alkyl esters, C7-rich	71888-89-6
	炭素数6-8のフタル酸エステル類		

REACH Regulations SVHC Substance List

● the 6th SVHC listing 20 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	トリス(クロメート)ニクロム, クロム酸/クロム(III)	Dichromium tris(chromate)	24613-89-6
2	クロム酸ヒドロキソクタジニケート	Potassium hydroxyoctaoxidizincatedi-chromate	11103-86-9
3	クロム酸八水酸化五亜鉛	Pentazinc chromate octahydroxide	49663-84-5
4	アルミノケイ酸、耐火性セラミック繊維	Aluminosilicate Refractory Ceramic Fibres (RCF)	--
5	ジルコニアアルミノケイ酸、耐火性セラミック繊維	Zirconia Aluminosilicate Refractory Ceramic Fibres (Zr-RCF)	--
6	アニリンとホルムアルデヒドの重合物	Formaldehyde, oligomeric reaction products with aniline (technical MDA)	25214-70-4
7	ビス(2-メトキシエチル) = フタラート	Bis(2-methoxyethyl) phthalate	117-82-8
8	2-メトキシアニリン	2-Methoxyaniline; o-Anisidine	90-04-0
9	4-(1,1,3,3-テトラメチルブチル)フェノール、4-tert-オクチルフェノール	4-(1,1,3,3-tetramethylbutyl)phenol, (4-tert-Octylphenol)	140-66-9
10	1,2-ジクロロエタン	1,2-Dichloroethane	107-06-2
11	ジエチレングリコールジメチルエーテル	Bis(2-methoxyethyl) ether	111-96-6
12	ヒ酸	Arsenic acid	7778-39-4
13	ヒ酸カルシウム	Calcium arsenate	7778-44-1
14	ヒ酸鉛(II)	Trilead diarsenate	3687-31-8
15	N,N-ジメチルアセトアミド	N,N-dimethylacetamide (DMAC)	127-19-5
16	2,2'-ジクロロ-4,4'-メチレンジアニリン	2,2'-dichloro-4,4'-methylenedianiline(MOCA)	101-14-4
17	3,3'-ビス(4-ヒドロキシフェニル) イソベンゾフラン-1(3H)-オン	Phenolphthalein	77-09-8
18	アジ化鉛(II)	Lead azide Lead diazide	13424-46-9
19	2,4,6-トリニトロ-1,3-ベンゼンジオール鉛(II)塩	Lead styphnate	15245-44-0
20	ニピクリン酸鉛, ビスピクリン酸鉛(II)	Lead dipicrate	6477-64-1
	鉛(II)ビス(2,4,6-トリニトロベンゼン-1-オラート)		

● the 7th SVHC listing 13 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	トリエチレングリコールジメチルエーテル	1,2-bis(2-methoxyethoxy)ethane (TEGDME; triglyme)	112-49-2
2	エチレングリコールジメチルエーテル	1,2-dimethoxyethane; ethylene glycol dimethyl ether (EGDME)	110-71-4
3	三酸化二ボロ素(酸化ボロ素)	Diboron trioxide	1303-86-2
4	フォルムアミド	Formamide	75-12-7
5	メタンсульフオン酸鉛(II)	Lead(II) bis(methanesulfonate)	17570-76-2
6	TGIC, イソシアヌル酸1,3,5-トリグリシジル, トリグリシジルイソシアヌラート	TGIC (1,3,5-tris(oxiranylmethyl)-1,3,5-triazine-2,4,6(1H,3H,5H)-trione)	2451-62-9
7	β-TGIC, 1,3,5-トリス(2,3-エポキシプロピル)-1,3,5-トリアジン-2,4,6(1H,3H,5H)-トリオン(トリグリシジルイソシアヌラート)	β-TGIC (1,3,5-tris[(2S and 2R)-2,3-epoxypropyl]-1,3,5-triazine-2,4,6-(1H,3H,5H)-trione)	59653-74-6
8	4,4'-ビス(ジメチルアミノ)ベンゾフェノン(ミヒラーケトン)	4,4'-bis(dimethylamino)benzophenone (Michler's Ketone)	90-94-8
9	N,N,N',N'-テトラメチル-4,4'-メチレンジアニリン(ミヒラー塩基)	N,N,N',N'-tetramethyl-4,4'-methylenedianiline (Michler's base)	101-61-1
10	4-[4,4'-ビス(ジメチルアミノ)ベンズヒドリリデン]シクロヘキサ-2,5-ジエン-1-イリデン]ジメチルアンモニウムクロリド(C.I.ベーシックバイオレット3)	4-[4,4'-bis(dimethylamino)benzhydrylidene]cyclohexa-2,5-dien-1-ylidene]dimethylammonium chloride (C.I. Basic Violet 3)	548-62-9
11	[4-[[4-アニリノ-1-ナフチル][4-(ジメチルアミノ)フェニル]メチレン]シクロヘキサ-2,5-ジエン-1-イリデン]ジメチルアンモニウムクロリド(C.I.ベーシックブルー)	[4-[[4-anilino-1-naphthyl][4-(dimethylamino)phenyl]methylene]cyclohexa-2,5-dien-1-ylidene] dimethylammonium chloride (C.I. Basic Blue)	2580-56-5
12	α,α-ビス[4-(ジメチルアミノ)フェニル]-4-(フェニルアミノ)ナフタレン-1-メタノール(C.I.ソルベントブルー4)*	α,α-Bis[4-(dimethylamino)phenyl]-4(phenylamino)naphthalene-1-methanol (C.I. Solvent Blue 4)	6786-83-0
13	4,4'-ビス(ジメチルアミノ)-4''-(メチルアミノ)トリチルアルコール*	4,4'-bis(dimethylamino)-4''-(methylamino)trityl alcohol	561-41-1

* In case of containing the Miller ketone (EC No 202-027-5) or Miller base (EC No. Field 202-959-2) more than 0.1%.

REACH Regulations SVHC Substance List

● the 8th SVHC listing 54 Substances

	Substance Name in Japanese	Substance Name in English	CAS No.
1	デカブロモジフェニルエーテル(デカBDE)	Bis(pentabromophenyl) ether (DecaBDE)	1163-19-5
2	ペンタコサフルオロテトラデカン酸	Pentacosafluorotridecanoic acid	72629-94-8
3	トリコサフルオロドデカン酸	Tricosafafluorododecanoic acid	307-55-1
4	ヘンイコサフルオロウンデカン酸	Henicosafafluoroundecanoic acid	2058-94-8
5	ヘプタコサフルオロテトラデカン酸	Heptacosafafluorotetradecanoic acid	376-06-7
6	4-(1,1,3,3-テトラメチルブチル)フェノール、 エトキシシレート	4-(1,1,3,3-tetramethylbutyl)phenol, ethoxylated - Covering well-defined substances and UVCB substances, polymers and homologues	—
7	4-ノニルフェノール [炭素数9の直鎖および分 岐のアルキル の全ての異性体の単独物、 及び 混合物(UVCB)]	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	—
8	アゾジカルボンアミド	Diazene-1,2-dicarboxamide (C,C'azodi(formamide))	123-77-3
9	シクロヘキサン-1,2-ジカルボン酸無水物	Hexahydro-2-benzofuran-1,3-dione (HHPA), cis- cyclohexane-1,2-dicarboxylic anhydride, trans- Cyclohexane-1,2-dicarboxylic anhydride	85-42-7, 13149-00-3, 14166-21-3
10	メチルヘキサヒドロフタル酸無水物、 全ての異性体	Hexahydromethylphthalic anhydride, Hexahydro-4- methylphthalic anhydride, Hexahydro-1- methylphthalic anhydride, Hexahydro-3- Methylphthalic anhydride	25550-51-0, 19438-60-9, 48122-14-1, 57110-29-9
11	メトキシ酢酸	Methoxy acetic acid	625-45-6
12	メチルヘキサヒドロフタル酸無水物、 全ての異性体	1,2-Benzenedicarboxylic acid, dipentylester, branched and linear	84777-06-0
13	フタル酸ジ-イソペンチル	Diisopentylphthalate	605-50-5
14	フタル酸n-ペンチル-イソペンチル	N-pentyl-isopentylphthalate	776297-69- 9
15	エチレングリコールジエチルエーテル	1,2-Diethoxyethane	629-14-1
16	N,N-ジメチルホルムアミド	N,N-dimethylformamide; dimethyl formamide	1968/12/2
17	ジブチルジクロロスズ	Dibutyltin dichloride (DBT)	683-18-1
18	塩基性酢酸鉛	Acetic acid, lead salt, basic	51404-69-4
19	塩基性炭酸鉛	Trilead bis(carbonate)dihydroxide (basic lead carbonate)	1319-46-6
20	塩基性硫酸鉛	Lead oxide sulfate	12036-76-9
21	二塩基性フタル酸鉛	Phthalato(2-)]dioxotrilead	69011-06-9
22	ジオキソニステアリン酸三鉛	Dioxobis(stearato)trilead	12578-12-0
23	脂肪酸鉛、C16-18	Fatty acids, C16-18, lead salts	91031-62-8
24	ホウフッ化鉛	Lead bis (tetrafluoroborate)	13814-96-5
25	シアナミド鉛	Lead cyanamidate	20837-86-9
26	硝酸鉛	Lead dinitrate	10099-74-8
27	酸化鉛	Lead oxide (lead monoxide)	1317-36-8
28	四酸化鉛(オレンジ鉛)	Lead tetroxide (orange lead)	1314-41-6
29	チタン酸鉛	Lead titanium trioxide	12060-00-3
30	チタン酸ジルコン酸鉛	Lead Titanium Zirconium Oxide	12626-81-2
31	四塩基性硫酸鉛	Pentalead tetraoxide sulphate	12065-90-6
32	ピグメントイエロー41	Pyrochlore, antimony lead yellow	8012-00-8
33	ケイ酸バリウム、鉛ドーブ	Silicic acid, barium salt, lead-doped	68784-75-8
34	ケイ酸鉛	Silicic acid, lead salt	11120-22-2
35	塩基性亜硫酸鉛	Sulfurous acid, lead salt, dibasic	62229-08-7

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36	四エチル鉛	Tetraethyllead	78-00-2
37	三塩基性硫酸鉛	Tetralead trioxide sulphate	12202-17-4
38	二塩基性亜リン酸鉛	Trilead dioxide phosphonate	12141-20-7
39	フラン	Furan	110-00-9
40	プロピレンオキシド	Propylene oxide; 1,2-epoxypropane; methyloxirane	75-56-9
41	硫酸ジエチル	Diethyl sulphate	64-67-5
42	硫酸ジメチル	Dimethyl sulphate	77-78-1
43	3-エチル-2-イソペンチル-2-メチル-1,3-オキサゾリ	3-ethyl-2-methyl-2-(3-methylbutyl)-1,3-oxazolidine	143860-04-2
44	ジノセブ	Dinoseb	88-85-7
45	4,4'-メチレンビス-o-トルイジン	4,4'-methylenedi-o-toluidine	838-88-0
46	4,4'-オキシジアニリンおよびその塩	4,4'-oxydianiline and its salts	101-80-4
47	4-アミノアゾベンゼン	4-Aminoazobenzene; 4-Phenylazoaniline	1960/9/3
48	4-メチル-m-フェニレンジアミン	4-methyl-m-phenylenediamine (2,4-toluene-diamine)	95-80-7
49	2-メトキシ-5-メチルアニリン	6-methoxy-m-toluidine (p-cresidine)	120-71-8
50	ビフェニル-4-イルアミン	Biphenyl-4-ylamine	92-67-1
51	o-アミノアゾトルエン	o-aminoazotoluene	97-56-3
52	o-トルイジン	o-Toluidine; 2-Aminotoluene	95-53-4
53	N-メチルアセトアミド	N-methylacetamide	79-16-3
54	1-ブロモプロパン	1-bromopropane	106-94-5

● the 9th SVHC listing 10 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	カドミウム	Cadmium	7440-43-9
2	酸化カドミウム	Cadmium oxide	1306-19-0
3	フタル酸ジペンチル、フタル酸ジアミル (DPP)	Dipentyl phthalate (DPP)	131-18-0
4	4-ノニルフェノール、分岐および直鎖のエトキシレート[フェノールの4の位置で炭素数9の直鎖または分岐したアルキル鎖が共有結合している物質、UVCB物質およびwell-defined物質(組成等が分かっている物質)、ポリマーおよび同族体の個々の異性体やその組合せのどれでもを含んでエトキシ化されたものを含む	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, includes polymers and homologues ethoxylated containing any of their individual isomers or combinations thereof.	—
5	2-(2H-ベンゾトリアゾール-2-イル)-4-(tert-ブチル)-6-(sec-ブチル)フェノール (UV-350)	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-Butyl)phenol (UV-350)	36437-37-3
6	2-(2H-ベンゾトリアゾール-2-イル)-4,6-ジ-tert-ブチルフェノール (UV-328)	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV-328)	25973-55-1
7	2,4-ジ-tert-ブチル-6-(5-クロロベンゾトリアゾール-2-イル)フェノール (UV-327)	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1
8	2-ベンゾトリアゾール-2-イル-4,6-ジ-tert-ブチルフェノール (UV-320)	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
9	ペンタデカフルオロオクタン酸アンモニウム、ペルフルオロオクタン酸アンモニウム、パーフルオロオクタン酸アンモニウム (APFO)	Ammonium pentadecafluorooctanoate (APFO)	3825-26-1
10	ペンタデカフルオロオクタン酸、ペルフルオロオクタン酸、パーフルオロオクタン酸 (PFOA)	Pentadecafluorooctanoic acid (PFOA)	335-67-1

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● the 10th SVHC listing 10 Substances

	Substance Name in Japanese	Substance Name in English	CAS No.
1	硫化カドミウム, 硫化カドミウム(II), カドミウムスル	Cadmium sulphide	1306-23-6
2	3,3'-[[1,1'-ビフェニル]-4,4'-ジイルビス(アゾ)] ビス(4-アミノナフタレン-1-スルホネート)二ナト リウム, コンゴ レッド (C.I. ダイレクトレッド 28)	Disodium 3,3'-[[1,1'-biphenyl]-4,4'-diylbis(azo)]bis(4- aminonaphthalene-1-sulphonate) (C.I. Direct Red 28)	73-58-0
3	4-アミノ-3-[[4'-[(2,4-ジアミノフェニル)アゾ]- [1,1'-ビフェニル]-4-イル]アゾ]-5-ヒドロキシ- 6-(フェニルアゾ)ナフタレン-2,7-ジスルホネ ート二ナトリウム, クロラゾール ブラック E (C.I. ダイレクトブラック 38)	Disodium 4-amino-3-[[4'-[(2,4- diaminophenyl)azo][1,1'-biphenyl]-4-yl]azo]-5-hydroxy-6- (phenylazo)naphthalene-2,7-disulphonate (C.I. Direct Black 38)	1937-37-7
4	フタル酸ジヘキシル, ジヘキシルフタレート, フ タル酸ジ-n-ヘキシル	ihexyl phthalate	84-75-3
5	イミダゾリジン-2-チオン, 2-イミダゾリジンチオ ン, N,N'-エチレンチオ尿素; 2-イミダゾリン- 2-チオール	Imidazolidine-2-thione; 2-imidazoline-2-thiol	96-45-7
6	酢酸鉛(II), ビス酢酸鉛(II), 二酢酸鉛(II)	Lead di(acetate)	301-04-2
7	リン酸トリキシレニル, トリ(ジメチルフェニル)ホ スフェート, リン酸トリス(ジメチルフェニル)	Trixylyl phosphate	5155-23-1

● the 11th SVHC listing 4 Substances

	Substance Name in Japanese	Substance Name in English	CAS No.
1	ジクロロカドミウム	Cadmium chloride	10108-64-2
2	1,2-ベンゼンジカルボン酸、ジヘキシルエステル、 分岐および直鎖	1,2-Benzenedicarboxylic acid, dihexyl ester, branched and linear	68515-50-4
3	ペルオキシホウ酸ナトリウム、過ホウ酸ナトリウム	Sodium peroxometaborate	7632-04-4
4	過ホウ酸ナトリウム; 過ホウ酸、ナトリウム塩	Sodium per borate; perboric acid, sodium salt	—

● the 12th SVHC listing 6 Substances

	Substance Name in Japanese	Substance Name in English	CAS No.
1	フッ化カドミウム、カドミウムジフルオリド	Cadmium fluoride	7790-79-6
2	硫酸カドミウム(II)、硫酸カドミウム(II)無水物・水和物	Cadmium sulphate	10124-36-4; 31119-53-6
3	2-ベンゾトリアゾール-2-イル-4,6-ジ-tert-ブチル フェノール (UV-320)	2-benzotriazol-2-yl-4,6-di-tert-butylphenol (UV-320)	3846-71-7
4	2-(2H-ベンゾトリアゾール-2-イル)-4,6-ジ-tert- ペンチルフェノール (UV-328)	2-(2H-benzotriazol-2-yl)-4,6-ditertpentylphenol (UV- 328)	25973-55-1
5	10-エチル-4,4-ジオクチル-7-オキソ-8-オキサ-3,5-ジ チア-4-スタンナテトラデカン酸2-エチルヘキシル (DOTE)	2-ethylhexyl 10-ethyl-4,4-dioctyl-7-oxo-8-oxa-3,5- dithia-4-stannatetradecanoate (DOTE)	15571-58-1
6	10-エチル-4,4-ジオクチル-7-オキソ-8-オキサ-3,5-ジ チア-4-スタンナテトラデカン酸2-エチルヘキシルと10-エ チル-4-[[2-[[2-(エチルヘキシル)オキシ]-2-オキソエチ ル]チオ]-4-オクチル-7-オキソ-8-オキサ-3,5-ジチア- 4-スタンナテトラデカン酸2-エチルヘキシルの 反応生成物 (DOTEとMOTEの反応生成物) の反応生成物 (DOTEとMOTEの反応生成物)	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)	—

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● the 13th SVHC listing 2 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	1,2-ベンゼンジカルボン酸、ジ-C6~10-アルキルエステル; 1,2-ベンゼンジカルボン酸、デシル・ヘキシル・オクチルジエステルと0.3%以上のフタル酸ジヘキシル (EC No. 201-559-5)との混合物	1,2-benzenedicarboxylic acid, di-C6-10-alkyl esters; 1,2-benzenedicarboxylic acid, mixed decyl and hexyl and octyl diesters with ≥ 0.3% of dihexyl phthalate (EC No. 201-559-5)	68515-51-5, 68648-93-1
2	5-sec-ブチル-2-(2,4-ジメチルシクロヘキサ-3-エン1-イル)-5-メチル-1,3-ジオキサン[1]、5-sec-ブチル-2-(4,6-ジメチルシクロヘキサ-3-エン1-イル)-5-メチル-1,3-ジオキサン[2] ([1]と[2]の個々の立体異性体、またはその組合せも含む)	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]	—

● the 14th SVHC listing 5 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	ニトロベンゼン	Nitrobenzene	98-95-3
2	2,4-ジ-tert-ブチル-6-(5-クロロベンゾトリアゾール-2-イル)フェノール (UV-327)	2,4-di-tert-butyl-6-(5-chlorobenzotriazol-2-yl)phenol (UV-327)	3864-99-1
3	2-(2H-ベンゾトリアゾール-2-イル)-4-(tert-ブチル)-6-(sec-ブチル)フェノール (UV-350)	2-(2H-benzotriazol-2-yl)-4-(tert-butyl)-6-(sec-Butyl)phenol (UV-350)	36437-37-3
4	1,3-プロパンスルトン	1,3-propanesultone	1120-71-4
5	パーフルオロノナン-1-酸 2,2,3,3,4,4,5,5,6,6,7,7, 8,8,9,9,9-ヘプタデカフルオロノナン酸、その塩とアンモニウム塩)	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)	375-95-1、 21049-39-8、 4149-60-4

● the 15th SVHC listing 1 Substance

Substance Name in Japanese		Substance Name in English	CAS No.
1	ベンゾ[def]クリセン (ベンゾ[a]ピレン)	Benzo[def]chrysene (Benzo[a]pyrene)	50-32-8

● the 16th SVHC listing 4 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	4,4'-イソプロピリデンジフェノール(ビスフェノールA)、BPA、2,2-ビス(p-ヒドロキシフェニル)プロパン	4,4'-isopropylidenediphenol (bisphenol A; BPA)	80-05-7
2	ノナデカフルオロデカン酸 (PFDA) およびそのナトリウムとアンモニウム塩、(ノナデカフルオロデカン酸アンモニウム、ノナデカフルオロデカン酸、ノナデカフルオロデカン酸ナトリウム)	Nonadecafluorodecanoic acid (PFDA) and its sodium and ammonium salts	335-76-2, 3830-45-3, 3108-42-7
3	p-(1,1-ジメチルプロピル)フェノール、4-tert-アミルフェノールなど	p-(1,1-dimethylpropyl)phenol	80-46-6
4	4-ヘプチルフェノール、分岐および直鎖[フェノールの4の位置で炭素数7の直鎖および/または分岐したアルキル鎖が共有結合している物質、個々の異性体やその組合せのどれでもを含んだ UVCB物質およびwell-defined物質(組成等が分かっている物質)を含む	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]	—

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● the 17th SVHC listing 1 Substance

Substance Name in Japanese		Substance Name in English	CAS No.
1	トリデカフルオロ-1-ヘキサンスルホン酸、ペルフルオロヘキサンスルホン酸、パーフルオロヘキサンスルホン酸とその塩	Perfluorohexane-1-sulphonic acid and its salts	355-46-4

● the 18th SVHC listing 7 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	クリセン、ベンゾ[a]フェナントレン	Chrysene	218-01-9 (1719-03-5)
2	ベンゾ[a]アントラセン	Benz[a]anthracene	56-55-3 (1718-53-2)
3	硝酸カドミウム	Cadmium nitrate	10325-94-7 (10022-68-)
4	水酸化カドミウム	Cadmium hydroxide	21041-95-2
5	炭酸カドミウム	Cadmium carbonate	513-78-0
6	1,6,7,8,9,14,15,16,17,17,18,18-ドデカクロロペンタシクロ[12.2.1.16,9.02,13.05,10]オクタデカ-7,15-ジエン ("デクロランプラス"™) [個々のanti-およびsyn-の異性体、またはその組合せを含む]	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]	—
7	1,3,4-チアジアゾリジン-2,5-ジチオン、ホルムアルデヒド、4-ヘプチルフェノール、分岐および直鎖(RP-HP) [0.1wt%以上の4-ヘプチルフェノール、分岐および直鎖]の反応性生物	Reaction products of 1,3,4-thiadiazolidine-2,5-dithione, Formaldehyde and 4-heptylphenol, branched and linear (RP-HP) [with more than 0.1wt% 4-heptylphenol, branched and linear	—

● the 19th SVHC listing 10 Substances

Substance Name in Japanese		Substance Name in English	CAS No.
1	オクタメチルシクロテトラシロキサン (D4)	Octamethylcyclotetrasiloxane (D4)	556-67-2
2	デカメチルシクロペンタシロキサン (D5)	Decamethylcyclopentasiloxane (D5)	541-02-6
3	ドデカメチルシクロヘキサシロキサン (D6)	Dodecamethylcyclohexasiloxane (D6)	540-97-6
4	鉛	Lead	7439-92-1
5	八ホウ酸二ナトリウム	Disodium octaborate	12008-41-2
6	ベンゾ[ghi]ペリレン	Benzo[ghi]perylene	191-24-2
7	水素化ターフェニル、水素化テルフェニル	Terphenyl hydrogenated	61788-32-7
8	エチレンジアミン	Ethylenediamine (EDA)	107-15-3
9	1,2,4-ベンゼントリカルボン酸1,2-無水物 (トリメリット酸無水物)、無水トリメリット酸	Benzene-1,2,4-tricarboxylic acid 1,2 anhydride (trimellitic anhydride) (TMA)	552-30-7
10	タル酸ジシクロヘキシル (DCHP)	Dicyclohexyl phthalate (DCHP)	84-61-7

1. As for the recent list of SVHC candidates, please refer to ECHA (EUROPIAN CHEMICALS AGENCY) website.

<http://echa.europa.eu/news-and-events/news-alerts>

2. About the survey on the Restricted Substances and the Controlled Substances, please contact us through the distribution channel.