

# **Guideline for Control of Chemical Substances (Fifth Edition)**

Ver5.7

**Parts and Materials**

**Cover Sheet**

March, 2021

**SANYO DENKI CO., LTD.**

**To our suppliers:**

**Guideline for Control of Chemical Substances(Fifth Edition)**  
**-To assist in procurement of environmentally-friendly materials/parts-**

**Preface**

Recently, environmental concerns have been increasingly focused on in business activities. Companies are supposed to seek for construction of a "recycling-oriented" society based on the harmonization of human beings and the environment.

Not only supplying high quality products at low cost and ensuring delivery dates, companies are expected to develop and offer environmentally-friendly products.

To help construct a recycling-oriented society to protect the global environment and achieve sustained growth of the economy, we are trying to promote environmental management including acquisition of ISO14001 and develop and offer environmentally-friendly products/designs

As a part of this program, we will promote "green procurement" to purchase environmentally-friendly materials/parts, etc. from our suppliers, who have been considering environmental concerns

Please give us your cooperation in order to make the program a success.

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**1. Scope**

This guideline applies to parts/materials/half-finished products used in our products

**2. Criteria for Green Procurement and Request to Suppliers**

The supplier shall deliver products that satisfy the guideline for management of chemical substances to us  
The supplier shall submit documents shown in the attached sheet form8 for the delivered products

**3. Basic Polices and Criteria**

None of the substances prohibited in this guideline shall be contained in products that you deliver to us  
Chemical substances that may affect the environment shall be controlled by classifying them into the following four categories.

**(1) RoHS restricted substances(Substances applicable to guarantee)**

There are ten substances whose use is prohibited by the RoHS Directive.

Exemptions from the prohibition are specified in the RoHS Directive.

The substance in a product and rate of the substance in the homogeneous materials including intentional inclusions or impurities shall be presented by means of Form 6 "Survey Sheet".

A guarantee form shall be submitted in Form No. 14 or 7.

**The analytical data such as ICP·GC/MS based on the actual measurement of the homogeneous materials shall be attached to the guarantee letter for verification.**

The safety data sheet (SDS) shall not be used.

**(2)-1 Prohibited substances(Substances applicable to non-containing guarantee)**

Substances that cannot be used due to international/national regulations or customer requirements.

Guarantee non-containing and submit the certificate (Form 14 or 7). If the substance is included, submit the prohibited substance containing report (Form 9).

**(2)-2 Prohibited substances(No intentional containing)**

Substances specified as the carcinogenic substances (1st group) by Japan Society for Occupational Health:

Substance group 1,specified chemical substances in Ordinance on the Prevention of the Hazard due to Specified Chemical Substances (Substances to be permitted)

Substances prohibited by us to be included in products

**(3) Controlled substances**

Substances that are subject to control/reduction when used in our products.

If any of them are contained, present their amounts.

As for the SVHC (Substances of Very High Concern) listed in the REACH Regulation, "contained" is defined as the content of the substance of 0.1 wt% or more of the mass of each component constituting the product.

**(4) chemSHERPA data**

A common scheme for communication of information on chemical substances contained in products governed by the JAMP (Joint Article Management Promotion-consortium). It is available throughout the supply chain and enables the communication of component information and legal compliance based on the common substance list.

## 4. Definition of terms

### 1) Intentional inclusion

It refers to addition/filling/adhesion by a manufacturer to continuously maintain the functionality/quality of their product. The use of impurities in the manufacturing processes for a semiconductor or the like in order to change its characteristics (doping) shall be deemed to be intentional inclusions.

### 2) Inclusion

When a chemical substance is included in a product as a component, a residue or an adhered substance, it shall be deemed to be an inclusion whether it is an intentional inclusion or not.

### 3) Impurity

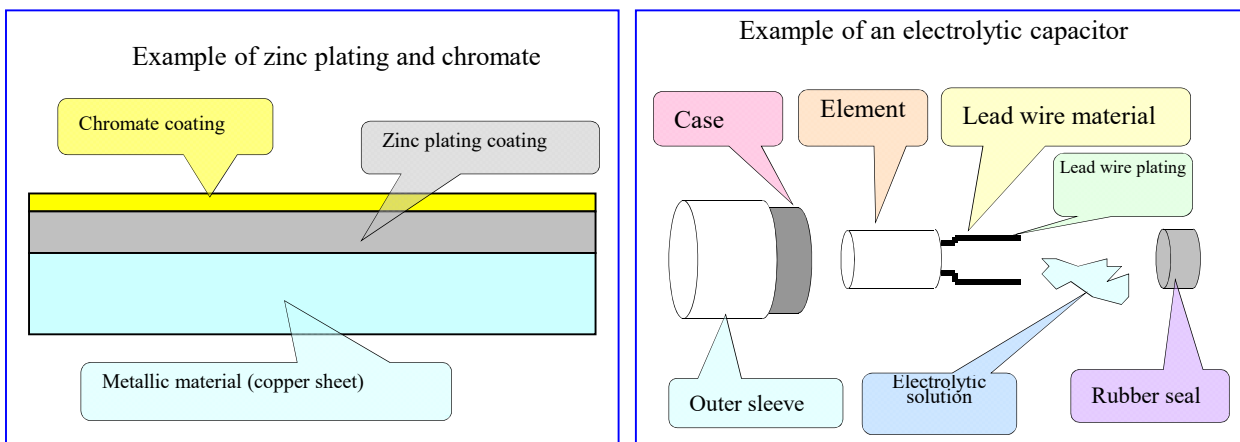
The substance is not intentionally added, filled, or adhered, or the substance is used in the natural materials and can not be completely removed technically in the refining process as the industrial material.

### 4) Homogeneous material

A material that cannot be mechanically decomposed into other materials.

- Basically, "mechanically decompose" means removal of a material through a mechanical operation such as unscrewing, cutting, crushing, grinding, or polishing.

Example of decomposing a homogeneous material:



## 5. Environmentally Harmful Chemical Substances: Applicability and Source

### 1) RoHS restricted substances

Ten RoHS restricted substances:

[DIRECTIVE 2011/65/EU OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 8 June 2011 on the restriction of the use of certain hazardous substances in electrical and electronic equipment]

All products delivered to us must not include the following 10 substances above the allowable concentration. (Excluding the exceptional items in RoHS Directive:ANNEX III)

- |   |  |
|---|--|
| 1. Cadmium (Cd)                           | 6. PBDE (Polybrominated diphenyl ethers) |
| 2. Lead (Pb)                              | 7. DEHP (Bis(2-ethylhexyl) phthalate)    |
| 3. Hexavalent chromium (Cr <sup>+</sup> ) | 8. BBP (Butyl benzyl phthalate)          |
| 4. Mercury (Hg)                           | 9. DBP (Dibutyl phthalate)               |
| 5. PBB (Polybrominated biphenyls)         | 10. DIBP (Diisobutyl phthalate)          |

### Allowable limits of concentration of impurities contained ((Revised directive 2015/863) ANNEX II)

- |  |                     |
|--|---------------------|
| 1. Cadmium (Cd) : 100 ppm                            | 6. PBDE : 1000 ppm  |
| 2. Lead (Pb)* : 1000 ppm                             | 7. DEHP : 1000 ppm  |
| 3. Hexavalent chromium (Cr <sup>6+</sup> ): 1000 ppm | 8. BBP : 1000 ppm   |
| 4. Mercury (Hg) : 1000 ppm                           | 9. DBP : 1000 ppm   |
| 5. PBB : 1000 ppm                                    | 10. DIBP : 1000 ppm |

\* Lead (Pb): 300 ppm in resin for cable coating (US regulation of the Proposition 65)

\* Concentrations of the impurities shall be measured for **each of homogeneous materials** at the appropriate part of the material and be expressed in ratio of mass.

**RoHS Exempted Item (ANNEX III)**

Substance Name	Item number	Exemption	Legal expiration dates	
			Category 1-7,10	Category 8,9,11
Mercury	1	Mercury in single capped (compact) fluorescent lamps not exceeding (per burner):		
	1(a)	For general lighting purposes < 30 W: 5 mg	Dec.31,2011	Dec.31,2011
		For general lighting purposes < 30 W: 3.5 mg	Dec.31,2012	Dec.31,2012
	1(b)	For general lighting purposes < 30 W: 2.5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
		For general lighting purposes ≥ 30 W and < 50 W: 5 mg	Dec.31,2011	Dec.31,2011
	1(c)	For general lighting purposes ≥ 30 W and < 50 W: 3.5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
		For general lighting purposes ≥ 50 W and < 150 W: 5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	1(d)	For general lighting purposes ≥ 150 W: 15 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	1(e)	For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm	Dec.31,2011	Dec.31,2011
		For general lighting purposes with circular or square structural shape and tube diameter ≤ 17 mm : 7 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	1(f)	For special purposes: 5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	1(g)	For general lighting purposes < 30 W with a lifetime equal or above 20 000 h: 3,5 mg		
	2(a)	Mercury in double-capped linear fluorescent lamps for general lighting purposes not exceeding (per lamp):		
	2(a)(1)	Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 5 mg	Dec.31,2011	Dec.31,2011
		Tri-band phosphor with normal lifetime and a tube diameter < 9 mm (e.g. T2): 4 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(a)(2)	Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 5 mg	Dec.31,2011	Dec.31,2011
		Tri-band phosphor with normal lifetime and a tube diameter ≥ 9 mm and ≤ 17 mm (e.g. T5): 3 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(a)(3)	Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 5 mg	Dec.31,2011	Dec.31,2011
		Tri-band phosphor with normal lifetime and a tube diameter > 17 mm and ≤ 28 mm (e.g. T8): 3.5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(a)(4)	Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 5 mg	Dec.31,2012	Dec.31,2012
		Tri-band phosphor with normal lifetime and a tube diameter > 28 mm (e.g. T12): 3.5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(a)(5)	Tri-band phosphor with long lifetime (≥ 25 000 h): 8 mg	Dec.31,2011	Dec.31,2011
		Tri-band phosphor with long lifetime (≥ 25 000 h): 5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(b)	Mercury in other fluorescent lamps not exceeding (per lamp):		
	2(b)(1)	Linear halophosphate lamps with tube > 28 mm (e.g. T10 and T12): 10 mg	Apr.13,2012	Apr.13,2012
	2(b)(2)	Non-linear halophosphate lamps (all diameters): 15 mg	Apr.13,2016	Apr.13,2016
	2(b)(3)	Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) : >15 mg	Dec.31,2011	Dec.31,2011
		Non-linear tri-band phosphor lamps with tube diameter > 17 mm (e.g. T9) : ≤ 15 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	2(b)(4)	Lamps for other general lighting and special purposes (e.g. induction lamps) : >15 mg	Dec.31,2011	Dec.31,2011
		Lamps for other general lighting and special purposes (e.g. induction lamps) : ≤15 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
3	Mercury in cold cathode fluorescent lamps and external electrode fluorescent lamps (CCFL and EEFL) for special purposes not exceeding (per lamp):			
3(a)	Short length (≤ 500 mm) : >3.5 mg	Dec.31,2011	Dec.31,2011*	
	Short length (≤ 500 mm) : ≤ 3.5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024	
3(b)	Medium length (> 500 mm and ≤ 1 500 mm) : > 5 mg	Dec.31,2011	Dec.31,2011	
	Medium length (> 500 mm and ≤ 1 500 mm) : ≤ 5 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024	
3(c)	Long length (> 1 500 mm) : >13 mg	Dec.31,2011	Dec.31,2011	
	Long length (> 1 500 mm) : ≤13 mg		8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024	

Substance Name	Item number	Exemption	Legal expiration dates	
			Category 1-7,10	Category 8,9,11
Mercury	4(a)	<del>Mercury in other low pressure discharge lamps (per lamp) : &gt;15 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		Mercury in other low pressure discharge lamps (per lamp) : ≤15 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	4(b)	Mercury in High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner) in lamps with improved colour rendering index Ra > 60:		
	4(b)- I	<del>P ≤ 155 W : &gt;30 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		P ≤ 155 W : ≤30 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	4(b)- II	<del>155 W &lt; P ≤ 405 W : &gt;40 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		155 W < P ≤ 405 W : ≤40 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	4(b)-III	<del>P &gt; 405 W : &gt;40 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		P > 405 W : ≤40 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	4(c)	Mercury in other High Pressure Sodium (vapour) lamps for general lighting purposes not exceeding (per burner):		
	4(c)- I	<del>P ≤ 155 W : &gt;25 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		P ≤ 155 W : ≤25 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	4(c)- II	<del>155 W &lt; P ≤ 405 W : &gt;30 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>
		155 W < P ≤ 405 W : ≤30 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
4(c)-III	<del>P &gt; 405 W : &gt;40 mg</del>	<del>Dec.31,2011</del>	<del>Dec.31,2011</del>	
	P > 405 W : ≤40 mg		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024	
<del>4(d)</del>	<del>Mercury in High Pressure Mercury (vapour) lamps (HPMV)</del>	<del>Apr.13,2015</del>	<del>Apr.13,2015</del>	
4(e)	Mercury in metal halide lamps (MH)		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024	
4(f)	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024	
4(g)	Mercury in hand crafted luminous discharge tubes used for signs, decorative or architectural and specialist lighting and light artwork, where the mercury content shall be limited as follows: (a) 20 mg per electrode pair + 0,3 mg per tube length in cm, but not more than 80 mg, for outdoor applications and indoor applications exposed to temperatures below 20 °C; (b) 15 mg per electrode pair + 0,24 mg per tube length in cm, but not more than 80 mg, for all other indoor applications.	Dec.31,2018	Dec.31,2018	
Lead	5(a)	Lead in glass of cathode ray tubes	Jul.21,2016	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight		8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight	Jun.30,2019	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	6(a)-I	Lead as an alloying element in steel for machining purposes containing up to 0.35% lead by weight and in batch hot dip galvanised steel components containing up to 0.2% lead by weight	Jul.21,2021	-
	6(b)	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight	Jun.30,2019	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	6(b)-I	Lead as an alloying element in aluminium containing up to 0,4 % lead by weight, provided it stems from lead- bearing aluminium scrap recycling	Jul.21,2021	-
	6(b)-II	Lead as an alloying element in aluminium for machining purposes with a lead content up to 0,4 % by weight	May.18,2021	-
	6(c)	Copper alloy containing up to 4 % lead by weight	Jul.21,2021	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	7(a)	Lead in high melting temperature type solders (i.e. lead- based alloys containing 85 % by weight or more lead)	Jul.21,2021	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	7(b)	Lead in solders for servers, storage and storage array systems network infrastructure equipment for switching, signalling, transmission, and network management for telecommunications	Jul.21,2016	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	7(c)-I	Electrical and electronic components containing lead in a glass or ceramic other than dielectric ceramic in capacitors, e.g. piezoelectronic devices, or in a glass or ceramic matrix compound	Jul.21,2021	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	7(c)-II	Lead in dielectric ceramic in capacitors for a rated voltage of 125 V AC or 250 V DC or higher	Jul.21,2021	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024
	7(c)-III	Lead in dielectric ceramic in capacitors for a rated voltage of less than 125 V AC or 250 V DC	Jan.1,2013	Jan.1,2013
	7(c)-IV	Lead in PZT based dielectric ceramic materials for capacitors being part of integrated circuits or discrete	Jul.21,2021	8,9-Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11-Jul.21,2024

Substance Name	Item number	Exemption	Legal expiration dates	
			Category 1-7,10	Category 8,9,11
Cadmium	8(a)	Cadmium and its compounds in one shot pellet type thermal cut offs	Jan.1,2012	Jan.1,2012
	8(b)	Cadmium and its compounds in electrical contacts	Feb.29,2020	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	8(b)-I	Cadmium and its compounds in electrical contacts used in: - circuit breakers, - thermal sensing controls, - thermal motor protectors (excluding hermetic thermal motor protectors), - AC switches rated at: - 6 A and more at 250 V AC and more, or - 12 A and more at 125 V AC and more, - DC switches rated at 20 A and more at 18 V DC and more, and - switches for use at voltage supply frequency $\geq$ 200 Hz.	Jul.21,2021	-
Hexavalent chromium	9	Hexavalent chromium as an anticorrosion agent of the carbon steel cooling system in absorption refrigerators up to 0,75 % by weight in the cooling solution	Jul.21,2016	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	9(a)-I	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators (including minibars) designed to operate fully or partly with electrical heater, having an average utilised power input $<$ 75 W at constant running conditions	Mar.5,2021	-
	9(a)-II	Up to 0,75 % hexavalent chromium by weight, used as an anticorrosion agent in the cooling solution of carbon steel cooling systems of absorption refrigerators: - designed to operate fully or partly with electrical heater, having an average utilised power input $\geq$ 75 W at constant running conditions, - designed to fully operate with non-electrical heater.	Jul.21,2021	-
Lead	9(b)	Lead in bearing shells and bushes for refrigerant-containing compressors for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Jul.5,2018	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	9(b)-(I)	Lead in bearing shells and bushes for refrigerant containing hermetic scroll compressors with a stated electrical power input equal or below 9 kW for heating, ventilation, air conditioning and refrigeration (HVACR) applications	Jul.21,2019 (Category I)	-
	11(a)	Lead used in C-press compliant pin connector systems	Sep.24,2010	Sep.24,2010
	11(b)	Lead used in compliant pin connector systems other than C-press connector systems	Jan.1,2013	Jan.1,2013
	12	Lead as a coating material for the thermal conduction module C ring	Sep.24,2010	Sep.24,2010
	13(a)	Lead in white glasses used for optical applications	Jul.21,2021	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
Lead/ Cadmium	13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	Jul.5,2018	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
Lead	13(b)-(I)	Lead in ion coloured optical filter glass types	Jul.21,2021	-
Cadmium	13(b)-(II)	Cadmium in striking optical filter glass types; excluding applications falling under point 39 of this Annex	Jul.21,2021	-
Lead/ Cadmium	13(b)-(III)	Cadmium and lead in glazes used for reflectance standards	Jul.21,2021	-
Lead	14	Lead in solders consisting of more than two elements for the connector between the pins and the package of microprocessors with a lead content of more than 80 % and less than 85 % by weight	Jan.1,2011	Jan.1,2011
	15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	Feb.29,2020	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	15(a)	Lead in solders to complete a viable electrical connection between the semiconductor die and carrier within integrated circuit flip chip packages where at least one of the following criteria applies: - a semiconductor technology node of 90 nm or larger; - a single die of 300 mm <sup>2</sup> or larger in any semiconductor technology node; - stacked die packages with die of 300 mm <sup>2</sup> or larger, or silicon interposers of 300 mm <sup>2</sup> or larger.	Jul.21,2021	-
	16	Lead in linear incandescent lamps with silicate coated tubes	Sep.1,2013	Sep.1,2013
	17	Lead halide as radiant agent in high intensity discharge (HID) lamps used for professional reprography applications	Jul.21,2016	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024
	18(a)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as speciality lamps for diazoprinting reprography, lithography, insect traps, photochemical and curing processes containing phosphors such as SMS ((Sr,Ba) <sub>2</sub> MgSi <sub>2</sub> O <sub>7</sub> :Pb)	Jan.1,2011	Jan.1,2011
	18(b)	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps when used as sun tanning lamps containing phosphors such as BSP (BaSi <sub>2</sub> O <sub>7</sub> :Pb)	Jul.21,2021	8,9:Jul.21,2021 8 in vitro:Jul.21,2023 9 industrial,11:Jul.21,2024

Substance Name	Item number	Exemption	Legal expiration dates	
			Category 1-7,10	Category 8,9,11
Lead	18(b)-I	Lead as activator in the fluorescent powder (1 % lead by weight or less) of discharge lamps containing phosphors such as BSP (BaSi2O5:Pb) when used in medical phototherapy equipment	5:Jul.21,2021	8:Jul.21,2021
	19	Lead with PbBiSn Hg and PbInSn Hg in specific compositions as main amalgam and with PbSn Hg as auxiliary amalgam in very compact energy saving lamps (ESL)	Jun.1,2011	Jun.1,2011
	20	Lead oxide in glass used for bonding front and rear substrates of flat fluorescent lamps used for Liquid Crystal Displays (LCDs)	Jun.1,2011	Jun.1,2011
Lead/ Cadmium	21	Lead and cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Feb.29,2020	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	21(a)	Cadmium when used in colour printed glass to provide filtering functions, used as a component in lighting applications installed in displays and control panels of EEE	Jul.21,2021	-
	21(b)	Cadmium in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Jul.21,2021	-
	21(c)	Lead in printing inks for the application of enamels on glasses, such as borosilicate and soda lime glasses	Jul.21,2021	-
Lead	23	Lead in finishes of fine pitch components other than connectors with a pitch of 0,65 mm and less	Sep.24,2010	Sep.24,2010
	24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Jul.21,2021	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	25	Lead oxide in surface conduction electron emitter displays (SED) used in structural elements, notably in the seal frit and frit ring	Jul.21,2016	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	26	Lead oxide in the glass envelope of black light blue lamps	Jun.1,2011	Jun.1,2011
	27	Lead alloys as solder for transducers used in high powered (designated to operate for several hours at acoustic power levels of 125 dB SPL and above) loudspeakers	Sep.24,2010	Sep.24,2010
	29	Lead bound in crystal glass as defined in Annex I (Categories 1, 2, 3 and 4) of Council Directive 69/493/EEC	Jul.21,2021	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Cadmium	30	Cadmium alloys as electrical/mechanical solder joints to electrical conductors located directly on the voice coil in transducers used in high-powered loudspeakers with sound pressure levels of 100 dB (A) and more	Jul.21,2016	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Lead	31	Lead in soldering materials in mercury free flat fluorescent lamps (which e.g. are used for liquid crystal displays, design or industrial lighting)	Jul.21,2016	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Jul.21,2021	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	33	Lead in solders for the soldering of thin copper wires of 100 µm diameter and less in power transformers	Jul.21,2016	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	34	Lead in cermet-based trimmer potentiometer elements	Jul.21,2021	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Mercury	36	Mercury used as a cathode sputtering inhibitor in DC plasma displays with a content up to 30 mg per display	Jun.1,2010	Jun.1,2010
Lead	37	Lead in the plating layer of high voltage diodes on the basis of a zinc borate glass body	Jul.21,2021	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Cadmium	38	Cadmium and cadmium oxide in thick film pastes used on aluminium bonded beryllium oxide	Jul.21,2016	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	39	Cadmium in colour converting II-VI LEDs (< 10 µg Cd per mm <sup>2</sup> of light-emitting area) for use in solid state illumination or display systems	Nov.20,2018	Nov.20,2018
	39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm <sup>2</sup> of display screen area)		
	40	Cadmium in photoresistors for analogue optocouplers applied in professional audio equipment	Dec.31,2013	Dec.31,2013
Lead	41	Lead in solders and termination finishes of electrical and electronic components and finishes of printed circuit boards used in ignition modules and other electrical and electronic engine control systems, which for technical reasons must be mounted directly on or in the crankcase or cylinder of hand-held combustion engines (classes SH:1, SH:2, SH:3 of Directive 97/68/EC of the European Parliament and of the Council (1) (1) Directive 97/68/EC of the European Parliament and of the Council of 16 December 1997 on the approximation of the laws of the Member States relating to measures against the emission of gaseous and particulate pollutants from internal combustion engines to be installed in non-road mobile machinery (OJ L 59, 27.2.1998, p. 1).	Mar.31,2022	8.9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024

Substance Name	Item number	Exemption	Legal expiration dates	
			Category 1-7,10	Category 8,9,11
Lead	42	Lead in bearings and bushes of diesel or gaseous fuel powered internal combustion engines applied in non-road professional use equipment: - with engine total displacement $\geq$ 15 litres; or - with engine total displacement < 15 litres and the engine is designed to operate in applications where the time between signal to start and full load is required to be less than 10 seconds; or regular maintenance is typically performed in a harsh and dirty outdoor environment, such as mining, construction, and agriculture applications.	-	11:Jul.21,2024
DEHP	43	Bis(2-ethylhexyl) phthalate in rubber components in engine systems, designed for use in equipment that is not intended solely for consumer use and provided that no plasticised material comes into contact with human mucous membranes or into prolonged contact with human skin and the concentration value of bis(2-ethylhexyl) phthalate does not exceed: (a) 30 % by weight of the rubber for (i) gasket coatings; (ii) solid-rubber gaskets; or (iii) rubber components included in assemblies of at least three components using electrical, mechanical or hydraulic energy to do work, and attached to the engine. (b) 10 % by weight of the rubber for rubber-containing components not referred to in point (a). For the purposes of this entry, "prolonged contact with human skin" means continuous contact of more than 10 minutes duration or intermittent contact over a period of 30 minutes, per day.	-	11:Jul.21,2024
Lead	44	Lead in solder of sensors, actuators, and engine control units of combustion engines within the scope of Regulation (EU) 2016/1628 of the European Parliament and of the Council, installed in equipment used at fixed positions while in operation which is designed for professionals, but also used by non-professional users	-	11:Jul.21,2024

Abbreviation: 8in vitro - for category 8 in vitro diagnostic medical devices

9industrial - for category 9 industrial monitoring and control instruments

(Additional exemptions shall be also applicable in compliance with the attached documents to the latest edition of 2011/65/EU.)



Substances used in packaging materials
Substance name: Heavy metals (mercury, cadmium, hexavalent chromium, lead)
Applicability: Packaging materials that are used in our products and to be delivered to our customers
Permissible concentration: The total concentration of lead, mercury, cadmium, and hexavalent chromium contained in the package or packaging component shall be less than 100 ppm.

## 2) Prohibited substances

We specify prohibited substances based on the following regulations:

### 2)-1 Prohibited substances (Substances applicable to non-containing guarantee)

1. Ozone layer protection related laws such as regulations on specific substances (substances regulated under the Montreal Protocol)
2. Article 55 of the Industrial Safety and Health Law (prohibition of production, import, and use)
3. Class 1 & 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
4. Law Concerning Special Measures against Dioxins
5. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex X VII, etc.
6. Law on the Regulation of Nuclear Source Material, Nuclear Fuels Material and Reactors
7. Poisonous and Deleterious Substances Control Law (specified poisonous substances)
8. Specific chlorinated flame retardants (Vermont Statutes)
9. Packaging and packaging waste directive (94/62/EC)

### 2)-2 Prohibited substances (No intentional containing)

1. Substances designated as cancer-causing substances (group 1) by Japan Society for Occupational Health
2. Class 1 substances (permission for production required) according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
3. POPs Convention (Stockholm Convention on Persistent Organic Pollutants) Annex A
4. Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA Section 6(h)

## Exemptions

Substances to be used for the following purposes shall be exempted from application of the rule to prohibit the substances from being included in a product.

Name of the Substance: Arsenic and its Compounds	
Exempted Material	<ul style="list-style-type: none"> <li>• Chemical compound semiconductors and copper foil for a printed circuit board including arsenic as a component.</li> <li>• A material in which arsenic of 1000 ppm or less content is included as an impurity.</li> </ul>

Name of the Substance: Beryllium and its Compounds	
Exempted Material	<ul style="list-style-type: none"> <li>• Copper Beryllium Alloy, Nickel-Beryllium Alloy</li> <li>• A material in which beryllium of 1000 ppm or less content is included as an impurity.</li> </ul>

## 3) Controlled substances

We specify controlled substances based on the following regulations:

1. Act on Promotion of Global Warming Countermeasures
2. Green Procurement Council (JGPSSI) VT62474, etc.
3. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex X VII
4. Registration, Evaluation, Authorisation and Restriction of Chemicals SVHC (Substance of Very High Concern)

## Documents to be submitted (Notes)

- 1) **Form 6 “Environmentally Harmful Substances (Parts and Materials) Survey Sheet”**
- 2) **Form 12 “SVHC Content Survey Sheet”**
- 3) **Form 9 “Prohibited substance containing report” :Submit the report if the prohibited substance is used.**

Please reply by E-mail with the above 123 as Excel.

Please do not forget to include the name of the person who prepared the document, the name of the department in charge, the department or the person to be contacted, the E-mail address, etc.

Note: When you submit the document via E-mail, please avoid to include any of 2-byte characters in the file name.

Examples: ○1, ○2, I, II, ... No., etc.

- 4) **Form 14 “Guarantee of conforming to hazardous substances restricted by RoHS Directive and non-containing guarantee of prohibited substances (Lead-free Metals Version) Ver.A”**

When you cannot submit the Lead-free Metals Version Guarantee of conforming Ver.A, please submit the following Guarantee of conforming Ver.B.

**Form 7 “Guarantee of conforming to hazardous substances restricted by RoHS Directive and non-containing guarantee of prohibited substances (for Products with Metals in which Lead 6(a)-I, 6(b)-I, 6(b)-II, or 6(C) is Used) Ver.B”**

When the use falls under the exceptions recognized by the RoHS Directive, please be sure to indicate whether you have an alternative plan and the planned timing of the elimination in the “alternative schedule” area in the remarks block of the questionnaire (Form 6).

Please submit the declaration form with the seal of the responsible person via E-mail in PDF format.  
(An electronic seal may be used.)

- 5) **The analytical data such as ICP based on the actual measurement shall be submitted together. (Please send by e-mail.)**

Submit the high accuracy analysis data of each "homogenous material" constituting the part, such as ICP·GC/MS analysis.

The analysis method is based on IEC62321. The fluorescent X ray (XRF) analysis is not acceptable.

The flowchart that indicates the analysis procedure must be attached.

Make sure it is clearly indicated that the sample is completely dissolved for ICP.

If a part uses common materials in the series, etc., submit the documents of each series, if possible.

In this case, attach the list or the like that shows the relationship between our item No. and each data.

- 6) **Submission of data by chemSHERPA-AI (latest version of Article) managed by JAMP (Joint Article Management Promotion-consortium)**

Refer to the website of chemSHERPA for details of the entry method, etc.

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

Prepare the data using the latest “Data entry support tool for the chemSHERPA-AI” that is put on the chemSHERPA website, and submit it in a shai file. Both the composition information and compliance information are indispensable. Download “Data entry support tool for the chemSHERPA-AI” from the following URL.

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

Send your reply via E-mail.

Concerning the harness (lead wire connector assembly), do not submit the data of each harness but submit the individual AIS data of each member used such as the lead wire, connector, and terminal.

(Generate and submit the data of each report.)

If the information of the contained substance per unit mass is the same for multiple members such as the metal processing parts, submission of the data of each material is acceptable.

## Contact/where to submit:

Material Administration Department, Sanyo Denki Co., Ltd.

Address: Ueda-shi, Nagano Pref.

386- Japan

Tel: +81-(0)268-

Fax: +81-(0)268-

E-MAIL:

## Environmentally Harmful Substances (Parts and Materials) Survey Sheet (Form6)

<Sanyo Denki Item No.>		<Product Name>		RoHS10 compatible (Y: yes, N: no)		No.		
<Product Model No.>		<Product Mass:g>⇒ <input style="width: 100px;" type="text"/>		g		<Entry Date>		
Manufacturer	<Company Name>		<Address>		<Department Name>		<TEL>	
	<Name of Responsible Person>		<Name of Person in Charge>		<E-MAIL>			
Customer	<Company Name>		<Address>		<Department Name>		<TEL>	
	<Name of Responsible Person>		<Name of Person in Charge>		<E-MAIL>			

If you inputting data on an Excel sheet, values in the "Rate of Content in Product" column will be automatically calculated. You will only have to input data in green cells.

If you are filling in a paper form, you will also need to enter data in the "Rate of Content in Product" column.

Batch input button (presence/absence of all substances can be input at a time)⇒

### (1) RoHS restricted substances (Substances applicable to guarantee conforming to RoHS Directive: also specify impurities if any)

Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Rate of Content in Homogeneous Material (ppm)	Containing Part	Intended use (Intentional use or inclusion as impurity. Exceptions No. from RoHS should be clarified.)	Remarks "Alternative plan" When the use falls under the exception recognized by the RoHS Directive, be sure to indicate whether you have an alternative plan and the planned timing of the elimination.	Applicable Regulations
153	<example of entry> Lead and its compounds	Y	400	3000	32000	Free-cutting brass	Machinability (intentional), exception from RoHS:6(c)	Alternative plan is available Reduced in Dec. 20**	RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	<example of entry> (Lead and its compounds)	-	-	-	920000	High-temperature solder	Joining (intentional), exception from RoHS:7(a)	Unscheduled for reduction.	RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	<example of entry> (Lead and its compounds)	-	-	-	465000	Chip resistor	Protective coat (intentional), exception from RoHS:7(c)- I	Alternative plan is available Reduced in Dec. 20**	RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	<example of entry> (Lead and its compounds)	-	-	-	100	Paint	Impurity	Unscheduled for reduction.	RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
153	Lead and its compounds								RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	(Lead and its compounds)	-	-	-					RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	(Lead and its compounds)	-	-	-					RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
	(Lead and its compounds)	-	-	-					RoHS Directive; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
46	Cadmium and its compounds								RoHS Directive; notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
28	Hexavalent chromium compounds								RoHS Directive; notification of carcinogenicity; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
181	Mercury and its compounds								RoHS Directive; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
11	PBDE (Polybrominated diphenyl ethers)								RoHS Directive
12	PBB (Polybrominated biphenyls)								RoHS Directive
504	DEHP (Bis(2-ethylhexyl) phthalate)								RoHS Directive(2015/863)
505	BBP (Butyl benzyl phthalate)								RoHS Directive(2015/863)
506	DBP (Dibutyl phthalate)								RoHS Directive(2015/863)
507	DIBP (Diisobutyl phthalate)								RoHS Directive(2015/863)

### (2)-1 Prohibited substances (Substances applicable to non-containing guarantee: Use of the substance is prohibited. If the threshold value or applicable item is specified in the laws, it is applied.)

Applicable Regulations	Inclusion (Y: yes, N: no)	Remarks
1. Ozone layer protection related laws such as regulations on specific substances (substances regulated under the Montreal Protocol)		
2. Article 55 of the Industrial Safety and Health Law (prohibition of production, import, and use)		The targets are the substances written in the report on presence of Prohibited substance containing report (Form 9f). - If the prohibited substances are not contained, select "N" in the column for presence/absence on the left. - If the prohibited substances are contained, select "Y" and fill in the report on presence of Prohibited substance containing report and submit it. (Submission is not necessary if not contained.)
3. Class 1 & 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances		
4. Law Concerning Special Measures against Dioxins		
5. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex XVII, etc.		
6. Law on the Regulation of Nuclear Source Material, Nuclear Fuels Material and Reactors		
7. Poisonous and Deleterious Substances Control Law (Specified Poisonous Substances)		
8. Specific chlorinated flame retardants (Vermont Statutes)		
9. Packaging and packaging waste directive (94/62/EC) (Apply the material to pack the products shipped by Sanyo Denki)		

### (2)-2 Prohibited substances (show data on intentionally included substances if any)

Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Containing Part	Intended Use	Remarks	Applicable Regulations
<b>1. Substances designated as cancer-causing substances (group 1) by Japan Society for Occupational Health</b>								
26	Erionite							Notification of carcinogenicity
27	Chlorovinyl (chlorovinyl monomer; Another name: Chloroethylene) (except PVC)							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
30	Mineral oils (unpurified products and semipurified products)							Notification of carcinogenicity
31	Coal tar							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
32	Volatile substance in coal tar pitch							Notification of carcinogenicity
33	Soot							Notification of carcinogenicity
35	Talc (product containing asbestos fiber)							Notification of carcinogenicity
36	2-naphthylamine							Notification of carcinogenicity
37	Nickel Compounds(refining dusts) (Nickels other than the above should be described in No268.)							Notification of carcinogenicity
38	Arsenic and inorganic arsenic compounds (Excluding the semiconductor and printed board copper foil; If they are used, mention the use and specify that they are excluded.)							Notification of carcinogenicity; Water Pollution Control Law; Waste Disposal and Public Cleaning Law; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
39	Benzene							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances; Water Pollution Control Law; Waste Disposal and Public Cleaning Law; Article 55 of the Industrial Safety and Health (EU REACH regulation Annex X, XI)
40	Benzotrithloride							Notification of carcinogenicity; Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
41	Dichloroethyl sulfide (Another name: Mustard gas, yperite)							Notification of carcinogenicity
43	Ethylene oxide							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
73	Asbestos							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
121	Trichloroethylene (Another name: Trichlene)							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
174	Shale oil							Notification of carcinogenicity
175	Wood dust							Notification of carcinogenicity
177	1,3-butadiene							Notification of carcinogenicity
257	Crystalline silica (With the fear of dust)							Notification of carcinogenicity
258	2,3,7,8-tetrachlorodibenzo-p-dioxin							Notification of carcinogenicity
492	1,2-Dichloropropane							Notification of carcinogenicity; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
483	Ionization radiation							Notification of carcinogenicity
<b>2. Class 1 substances (permission for production required) according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances</b>								
40	Benzotrithloride							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
56	Beryllium and its compounds (Excluding beryllium copper alloy and beryllium nickel alloy; If they are used, mention the use and specify that they are excluded.)							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances; Waste Disposal and Public Cleaning Law
66	Dichlorobenzidine and its salts							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
67	α-naphthylamine and its salts							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
68	PCB(polychlorinated biphenyl)							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
69	o-tolidine and its salts							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
70	Dianisidine and its salts							Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
<b>3. POPs Convention (Stockholm Convention on Persistent Organic Pollutants) Annex A</b>								
296	Perfluorooctanoic acid, its salts and PFOA-related substances							POPs Convention
572	Dicofol 2,2'-2-Trichloro-1-(2-chlorophenyl)-1-(4-							POPs Convention
<b>4.Regulation of Persistent, Bioaccumulative, and Toxic Chemicals Under TSCA Section 6(h)</b>								
11	Decabromodiphenyl Ether (DecaBDE)							TSCA(USA)
253	2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)							TSCA(USA)
287	Hexachlorobutadiene (HCBd)							TSCA(USA)
573	Phenol, Isopropylated Phosphate (3:1) (PIP 3:1)							TSCA(USA)
574	Pentachlorothiophenol (PCTP)							TSCA(USA)

**(3) Controlled substances (show data on intentionally included substances if any)**

Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Containing Part	Intended Use	Remarks	Applicable Regulations	
<b>1. Act on Promotion of Global Warming Countermeasures</b>									
166	Carbon dioxide							Act on Promotion of Global Warming Countermeasures	
167	Methane							Act on Promotion of Global Warming Countermeasures	
168	Nitrous oxide							Act on Promotion of Global Warming Countermeasures	
169	Hydrofluorocarbon							Act on Promotion of Global Warming Countermeasures	
170	Perfluorocarbon							Act on Promotion of Global Warming Countermeasures	
171	Sulfur hexafluoride							Act on Promotion of Global Warming Countermeasures	
<b>2. Green Procurement Council (JGPSSI)VT62474, etc.</b>									
185	Antimony and its compounds (Diantimony trioxide should be listed in No541.)							Green Procurement Council	
204	Cobalt and its compounds							Green Procurement Council, Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances	
213	Thallium and its compounds							Green Procurement Council	
214	Tellurium and its compounds							Green Procurement Council	
238	Polyvinyl chloride(PVC)							Green Procurement Council	
246	Organobromine compounds (except PBB, PBDE, HBCDD)							Green Procurement Council	
247	Bismuth and its compounds							Green Procurement Council	
248	Chromium compounds (except hexavalent chromium compounds, metal chromium)							Green Procurement Council	
514	Selected Phthalates Group 2 (DIDP, DINP, DNOP)							Green Procurement Council EU REACH regulation Annex X VII	
58	Formaldehyde							Voluntarily controlled substances, Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances	
293	Beryllium Oxide(BeO)							Green Procurement Council	
294	Perchlorates							Green Procurement Council	
475	Di-isodecyl phthalate(DIDP)							Proposition 65	
476	Di-n-hexyl phthalate(DnHP)							Proposition 65	
523	Diisononyl Phthalate(DINP)							Proposition 65	
<b>3. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex X VII</b>									
268	Nickel or its compounds (Report if it is used intentionally: For control )							EU REACH regulation Annex X VII	
341	Dioctyltin compound (Content of 0.1 wt% or more of the delivered product as converted to tin)							EU REACH regulation Annex X VII	
530	Azo dye/pigment (azo dye/pigment that forms a specific amine) (Report if it is used intentionally: For control )							EU REACH regulation Annex X VII German commodity goods ordinance	
532	Polycyclic aromatic hydrocarbons (PAHs;Annex XVII substances) (Report if it is used intentionally: For control )							EU REACH regulation Annex X VII	
<b>4. Others</b>									
541	Diantimony trioxide							Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances	
455	Red phosphorus							Measures to migration	
484	Bisphenol A(BPA)							Health Canada	
<b>5. Dibutyltin compounds Threshold: Content rate in a homogenous material exceeding 0.1% by weight (1,000 ppm) (The entry method is the same as shown in the example of entry in (1) RoHS restricted substances.)</b>									
Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Rate of Content in Homogeneous Material (ppm)	Containing Part	Intended Use	Remarks (If included, specify the reduction date and substitute Model No.)	Applicable Regulations
490	Dibutyltin compounds (if the tin content rate in a homogenous material exceeds 0.1% by weight)								Green Procurement Council

## SVHC Content Survey Sheet (Form12)

The following items including product name and company name shall be entered in 1) List & Reply Form (Form 6).

<Sanyo Denki Item No.>		<Product Name>		RoHS10 compatible (Y: yes, N: no)	No.
<Product Model No.>		<Product Mass:g>⇒	0	g	0
Manufacturer	<Company Name>	<Address>		<Department Name>	<TEL>
	<Name of Responsible Person>	<Name of Person in Charge>		<E-MAIL>	
Customer	<Company Name>	<Address>		<Department Name>	<TEL>
	<Name of Responsible Person>	<Name of Person in Charge>		<E-MAIL>	

Batch input button (presence/absence of all substances can be input at a time)⇒

**Registration, Evaluation, Authorisation and Restriction of Chemicals SVHC (Substance of Very High Concern)**

**"Contained" is defined as the content of the substance of 0.1 wt% or more of the mass of each component constituting the product.**

Sanyo No.	Chemical Substance Name	CAS No.	EC No.	Inclusion Y: yes N: no	Content (mg)	Rate of Content in parts (ppm)	Containing Part	Intended Use	Remarks	Applicable Regulations
	1st SVHC 15 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	2nd SVHC 13 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	3rd SVHC 8 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	4th SVHC 8 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	5th SVHC 7 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	6th SVHC 20 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	7th SVHC 13 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	8th SVHC 54 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	9th SVHC 6 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	10th SVHC 7 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	11th SVHC 4 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	12th SVHC 6 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	13th SVHC 2 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	14th SVHC 5 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	15th SVHC 1 substance	-	-						If contained, develop the details using the "+" button on the left for entry.	
	16th SVHC 4 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	17th SVHC 1 substance	-	-						If contained, develop the details using the "+" button on the left for entry.	
	18th SVHC 7 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	19th SVHC 10 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	20th SVHC 6 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	21st SVHC 4 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	22nd SVHC 4 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	23rd SVHC 4 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
	24th SVHC 2 substances	-	-						If contained, develop the details using the "+" button on the left for entry.	
-	List other contained SVHCs if any.			-	-	-	-	-	-	-
-										EU REACH regulation
-										EU REACH regulation
-										EU REACH regulation

**\*If the prohibited substance is included, fill in and submit this sheet. This sheet needs not be submitted if no prohibited substance is included.**

The following items including product name and company name shall be entered in 1) List & Reply Form (Form 6).

<Sanyo Denki Item No.>		<Product Name>		No.	
<Product Model No.>		<Product Mass:g>⇒ 0		g	
Manufacturer	<Company Name>	<Address>	<Department Name>		<TEL>
	<Name of Responsible Person>	<Name of Person in Charge>	<E-MAIL>		
Customer	<Company Name>	<Address>	<Department Name>		<TEL>
	<Name of Responsible Person>	<Name of Person in Charge>	<E-MAIL>		

If you inputting data on an Excel sheet, values in the "Rate of Content in Product" column will be automatically calculated. You will only have to input data in green cells.

If you are filling in a paper form, you will also need to enter data in the "Rate of Content in Product" column.

Batch input button (presence/absence of all substances can be input at a time)⇒

**(2)-1 Prohibited substances (Substances applicable to non-containing guarantee: If the threshold value or applicable item is specified in the laws, it is applied.)**

Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Containing Part	Intended use (Intentional use or inclusion as impurity.)	Remarks (If included, specify the reduction date and substitute Model No.)	Applicable Regulations
<b>1. Ozone layer protection related laws such as regulations on specific substances (substances regulated under the Montreal Protocol)</b>								
1	CFC			#DIV/0!				Ozone layer protection laws
2	Halon			#DIV/0!				Ozone layer protection laws
3	Carbon tetrachloride			#DIV/0!				Ozone layer protection laws; Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances; Ordinance on Prevention of Hazards due to Specified Chemical Substances; Water Pollution
4	1, 1, 1-trichloroethane (Another name: Methyl chloroform)			#DIV/0!				Ozone layer protection laws, Water Pollution Control Law; Waste Disposal and Public Cleaning Law
5	HCFC			#DIV/0!				Ozone layer protection laws
6	HBFC			#DIV/0!				Ozone layer protection laws
7	Methyl bromide (Another name: Bromomethane)			#DIV/0!				Ozone layer protection laws; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
256	Bromochloromethane			#DIV/0!				Ozone layer protection laws
<b>2. Article 55 of the Industrial Safety and Health Law (prohibition of production, import, and use)</b>								
16	Yellow phosphorus match			#DIV/0!				Article 55 of the Industrial Safety and Health Law
17	Benzidine and its salts			#DIV/0!				Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
18	4-aminodiphenyl and its salts (Another name: 4-biphenylamine)			#DIV/0!				Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
19	Amosite			#DIV/0!				Article 55 of the Industrial Safety and Health Law
20	Crocidolite			#DIV/0!				Article 55 of the Industrial Safety and Health Law
21	4-nitrobiphenyl and its salts			#DIV/0!				Article 55 of the Industrial Safety and Health Law
22	Bis(chloromethyl)ether			#DIV/0!				Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
23	β-naphthylamine and its salts			#DIV/0!				Article 55 of the Industrial Safety and Health Law
180	Rubber paste containing benzene, in which the volume of benzene contained exceeds 5% of the solvent of the relevant rubber paste			#DIV/0!				Article 55 of the Industrial Safety and Health Law
<b>3. Class 1 &amp; 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances</b>								
68	PCB(polychlorinated biphenyl)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances; Class 1 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances; Water P
111	Polychlorinated naphthalene (more than 2 chlorine atoms)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
112	Hexachlorobenzene			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
113	Aldrine			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
114	Dieldrin			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
115	Endrine			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
116	DDT			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
117	Chlordanes (Another name: Heptachlor)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
118	Bis(tributyltin)oxide			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
252	N,N'-ditolyl-p-phenylenediamine, N-tolyl-N'-xylyl-p-phenylenediamine and N,N'-dixylyl-p-phenylenediamine			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
253	2,4,6-tri-tert-butylphenol			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
254	Polychloro - 2, 2 - dimethyl - 3 - methylene bicyclo [2, 2, 1] heptane (Another name: Toxaphene)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
255	Dodecachloropentacyclo [5. 3. 0. 02, 6. 03, 9. 04, 8] decane (Another name: Mirex)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
286	2,2,2-Trichloro-1, 1-bis (4-Chlorophenyl) ethanol (Another name: Kelthane or Dicofof)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
287	Hexachlorobuta-1, 3-Diene			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
288	Phenol,2-(2H-benzotriazol-2-yl)-4,6-bis(1,1-dimethylethyl)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
327	Perfluorooctane sulfonate (PFOS) or its salts			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
328	Erfluorooctane sulfonyl fluoride (PFOSF)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
329	Pentachlorobenzene			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
330	r-1,c-2,t-3,c-4,t-5,t-6-hexachlorocyclohexane (i.e. α-hexachlorocyclohexane)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
331	r-1,t-2,c-3,t-4,c-5,t-6-hexachlorocyclohexane (i.e. β-hexachlorocyclohexane)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
332	r-1,c-2,t-3,c-4,c-5,t-6-hexachlorocyclohexane (i.e. γ-hexachlorocyclohexane)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
333	Decachloropentacyclo [5,3,0,2,60,3,90,4,80] decane-5-one (i.e. chlordecone)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
334	Hexabromobiphenyl			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
335	Tetrabromo (phenoxybenzene) (i.e. tetrabromodiphenyl ether)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
336	Pentabromo (phenoxybenzene) (i.e. pentabromodiphenyl ether)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
337	Hexabromo (phenoxybenzene) (i.e. hexabromodiphenyl ether)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
338	Heptabromo (phenoxybenzene) (i.e. heptabromodiphenyl ether)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
481	6,7,8,9,10,10-hexachloro-1,5,5a,6,9,9a-hexahydro-6,9-methano- 2,4,3-benzodioxathiepine 3-oxide; endosulfan			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
482	Hexabromocyclododecane(HBCDD)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
521	Pentachlorophenol and its salts and esters			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
243	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.)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
11	1,1'-Oxybis(2,3,4,5,6-pentabromobenzene) (synonym: Decabromodiphenyl ether)(PBDE)			#DIV/0!				Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
121	Trichloroethylene(Another name: Trichlene)			#DIV/0!				Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances; Ordinance on the Prevention of Organic Solvent Poisoning; Water Pollution Control Law; Waste Disposal and Public Cle
122	Tetrachloroethylene			#DIV/0!				Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances; Water Pollution Control Law; Waste Disposal and Public Cleaning Law
3	Carbon tetrachloride			#DIV/0!				Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
259	Tributyl tins (TBTs), Triphenyl tins (TPTs)			#DIV/0!				Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
<b>4. Law Concerning Special Measures against Dioxins</b>								
211	Dioxins Polychlorodibenzofran (PCDF) Polychlorodibenzo-para-dioxin (PCDDs) Coplanar - polychlorinated biphenyl			#DIV/0!				Dioxin regulations
<b>5. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex XVII, etc.</b>								
62	Tris(2,3-dibromopropyl)phosphate			#DIV/0!				EU REACH regulation Annex X VII
94	Pentachlorophenol (Another name: PCP) and its sodium salts			#DIV/0!				EU REACH regulation Annex X VII, Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
197	Polychlorinated terphenyls(PCT)			#DIV/0!				EU REACH regulation Annex X VII
243	Chlorinatedparaffins(C10-13)			#DIV/0!				EU REACH regulation Annex X VII,2002/45/EC
245	Azo dye/pigment (azo dye/pigment that forms a specific amine) (only applicable to areas that may come in contact with the skin)			#DIV/0!				EU REACH regulation Annex X VII German commodity goods ordinance
270	DBBT (monomethyl-dibromo-diphenylmethane)			#DIV/0!				EU REACH regulation Annex X VII
271	DBB (di-μ-oxo-di-n-butylstanniohydroxyborane)			#DIV/0!				EU REACH regulation Annex X VII
272	Monomethyltetrachlorodiphenylmethane(Ugilec 141)			#DIV/0!				EU REACH regulation Annex X VII
273	Monomethyl-dichloro-diphenylmethane(Ugilec 121,21)			#DIV/0!				EU REACH regulation Annex X VII
274	Tris-aziridinyl phosphin oxide			#DIV/0!				EU REACH regulation Annex X VII
289	Asbestos			#DIV/0!				EU REACH regulation Annex X VII
290	PFOS (Perfluorooctane sulfonate and its related compounds)			#DIV/0!				EU REACH regulation Annex X VII,2006/122/EC
339	Trisubstituted organotin compounds			#DIV/0!				EU REACH regulation Annex X VII
342	2-(2-methoxyethoxy)ethanol (DEGME)			#DIV/0!				EU REACH regulation Annex X VII
343	Cyclohexane			#DIV/0!				EU REACH regulation Annex X VII
340	Dibutyltin compound			#DIV/0!				EU REACH regulation Annex X VII

Sanyo No.	Chemical Substance Name	Inclusion Y: yes N: no	Content (mg)	Rate of Content in Product (ppm)	Containing Part	Intended use (Intentional use or inclusion as impurity.)	Remarks (If included, specify the redaction date and substitute Model No.)	Applicable Regulations
341	Dioctyltin compound (Describe the usage that is not specified in laws in Form 6.)			#DIV/0!				EU REACH regulation Annex X VII
292	Dimethyl Fumarate(DMF)			#DIV/0!				EU REACH regulation Annex X VII
524	Inorganic ammonium salts			#DIV/0!				EU REACH regulation Annex X VII
531	Polycyclic aromatic hydrocarbons (PAHs; Annex XVII substances) (Restricted to the resin parts which have direct contact with skin or oral cavity)			#DIV/0!				EU REACH regulation Annex X VII
296	Perfluorooctanoic acid, its salts and PFOA-related substances			#DIV/0!				EU REACH regulation Annex X VII
291	Cobalt chloride			#DIV/0!				European Council Directive (2003/34/EC)
522	Polychlorinated naphthalene (1 or more chlorine atoms)			#DIV/0!				EU POPs Annex I
<b>6. Law on the Regulation of Nuclear Source Material, Nuclear Fuels Material and Reactors</b>								
251	Radioactive substances			#DIV/0!				Law on the regulation of nuclear reactors, etc.
<b>7. Poisonous and Deleterious Substances Control Law (Specified Poisonous Substances)</b>								
275	Octamethyl-pyrophosphoramide (Another name: Schradan)			#DIV/0!				Poisonous and Deleterious Substances Control Law
276	Tetraalkyl lead (Another name: Tetramix)			#DIV/0!				Poisonous and Deleterious Substances Control Law
277	Diethylparanitrophenylthiophosphate (Another name: Parathion)			#DIV/0!				Poisonous and Deleterious Substances Control Law
278	Dimethylethylmercapto. ethylthiophosphate (Another name: Demeton-methyl)			#DIV/0!				Poisonous and Deleterious Substances Control Law
279	Dimethyl-(diethylamido-1-chlorocrotonyl)-phosphate (Another name: Phosphamidon)			#DIV/0!				Poisonous and Deleterious Substances Control Law
280	Dimethylparanitrophenylthiophosphate (Another name: Parathion-methyl)			#DIV/0!				Poisonous and Deleterious Substances Control Law
281	Tetraethylpyrophosphate (Another name: TEPP)			#DIV/0!				Poisonous and Deleterious Substances Control Law
282	Monofluoroacetate (Another name: Fluoroacetic acid)			#DIV/0!				Poisonous and Deleterious Substances Control Law
283	Monofluoroacetamide (Another name: Fluoroacetamide)			#DIV/0!				Poisonous and Deleterious Substances Control Law
284	Salts of monofluoroacetate			#DIV/0!				Poisonous and Deleterious Substances Control Law
285	Aluminium phosphate			#DIV/0!				Poisonous and Deleterious Substances Control Law
<b>8. Specific chlorinated flame retardants (Vermont Statutes)</b>								
478	Tris(2-chloroethyl)phosphate			#DIV/0!				Specific chlorinated flame retardants (Vermont Statutes)
479	Tris(2-chloro-1-methylethyl)phosphate			#DIV/0!				Specific chlorinated flame retardants (Vermont Statutes)
480	Tris(1,3-dichloro-2-propyl)phosphate			#DIV/0!				Specific chlorinated flame retardants (Vermont Statutes)
<b>9. Packaging and packaging waste directive (94/62/EC) (Apply the material to pack the products shipped by Sanyo Denki)</b>								
485	Lead, mercury, cadmium, and hexavalent chromium contained in the package or packaging component (threshold: total 100ppm)			#DIV/0!				Packaging and packaging waste directive (94/62/EC)

**Guarantee of conforming to hazardous substances  
restricted by RoHS Directive and non-containing  
guarantee of prohibited substances  
(Lead-free Metals Version) Ver.A**

We hereby declare that the following product sold to your company does not contain 6(a)-I, 6(b)-I, 6(b)-II, or 6(C) of the exemptions listed in Annex III to Directive 2011/65/EU and conforms with the allowable values specified in the provisions specified in Article 2. The exceptions of the substances other than 6(a)-I, 6(b)-I, 6 (b)-II, or 6(C) shall be permitted.

In addition, we guarantee that the substances prohibited in Item 4 are not contained.

**1. Product**

Product Name: \_\_\_\_\_  
 Product Model No.: \_\_\_\_\_  
 Sanyo Denki Item No.: \_\_\_\_\_  
 RoHS Exemption No.: \_\_\_\_\_

**2. Hazardous Substances Controlled by the RoHS Directive (2011/65/EU,(EU)2015/863) and allowable impurity limits:ANNEX II**

Hazardous Substances	Allowable Impurity Limits
1) Cadmium (Cd)	100 ppm
2) Lead (Pb)	1000 ppm
however, lead in the cable coating is 300 ppm (US Regulation of the proposition 65)	
3) Hexavalent chromium (Cr6+)	1000 ppm
4) Mercury (Hg)	1000 ppm
5) PBB (Polybrominated biphenyls)	1000 ppm
6) PBDE (Polybrominated diphenyl ethers)	1000 ppm
7) DEHP (Bis(2-ethylhexyl) phthalate)	1000 ppm
8) BBP (Butyl benzyl phthalate)	1000 ppm
9) DBP (Dibutyl phthalate)	1000 ppm
10) DIBP (Diisobutyl phthalate)	1000 ppm

\* Each of the contents is expressed in rate of the content (in mass rate) in **each homogeneous material** existing in the area in question.

**3. Verification Data of Contained Hazardous Substances Based on RoHS Directives (2011/65/EU)**

Measured data such as the ICP and GC/MS of the above mentioned product is as shown in the attached sheet.

**4. Prohibited substances (Substances applicable to non-containing guarantee)**

Substances prohibited to use by domestic or foreign regulations.

The applicable prohibited substances are specified in the prohibited substance containing report (Form 9f).

Name of Supplier: \_\_\_\_\_  
 Department in Charge: \_\_\_\_\_  
 Approved by (print the name): \_\_\_\_\_  
 (Signature): \_\_\_\_\_  
 Prepared by (print the name): \_\_\_\_\_  
 (Signature): \_\_\_\_\_



To: SANYO DENKI CO., LTD.

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

(Parts and Materials)Form7

If submission of the RoHS Guarantee Ver.A (Form 14) is impossible, submit the Guarantee Ver.B (Form 7).

**Guarantee of conforming to hazardous substances  
restricted by RoHS Directive and non-containing  
guarantee of prohibited substances  
(for Products with Metals in which Lead 6(a)-I, 6(b)-I, 6(b)-II, or 6(C) is Used ) Ver.B**

We hereby declare that the following product sold to your company complies with the allowable values specified in the provision specified in Article 2 and none of the prohibited substances in Article 4 are contained in the product. The exceptions specified in 2011/65/EU Annex III shall be permitted.

**1. Product**

Product Name: \_\_\_\_\_

Product Model No.: \_\_\_\_\_

Sanyo Denki Item No.: \_\_\_\_\_

RoHS Exemption No.: \_\_\_\_\_

The plan to eliminate lead from the metals (1,000 ppm or less) is given in Remarks of the questionnaire (Form 6).

**2. Hazardous Substances Controlled by the RoHS Directive (2011/65/EU,(EU)2015/863) and allowable impurity limits:ANNEX II**

Hazardous Substances	Allowable Impurity Limits
1) Cadmium (Cd)	100 ppm
2) Lead (Pb)	1000 ppm
however, lead in the cable coating is 300 ppm (US Regulation of the proposition 65)	
3) Hexavalent chromium (Cr6+)	1000 ppm
4) Mercury (Hg)	1000 ppm
5) PBB (Polybrominated biphenyls)	1000 ppm
6) PBDE (Polybrominated diphenyl ethers)	1000 ppm
7) DEHP (Bis(2-ethylhexyl) phthalate)	1000 ppm
8) BBP (Butyl benzyl phthalate)	1000 ppm
9) DBP (Dibutyl phthalate)	1000 ppm
10) DIBP (Diisobutyl phthalate)	1000 ppm

\* Each of the contents is expressed in rate of the content (in mass rate) in **each homogeneous material** existing in the area in question.

**3. Verification Data of Contained Hazardous Substances Based on RoHS Directives (2011/65/EU)**

Measured data such as the ICP and GC/MS of the above mentioned product is as shown in the attached sheet.

**4. Prohibited substances (Substances applicable to non-containing guarantee)**

Substances prohibited to use by domestic or foreign regulations.

The applicable prohibited substances are specified in the prohibited substance containing report (Form 9f).

Name of Supplier: \_\_\_\_\_

Department in Charge: \_\_\_\_\_

Approved by (print the name): \_\_\_\_\_

(Signature): \_\_\_\_\_

Prepared by (print the name): \_\_\_\_\_

(Signature): \_\_\_\_\_

## Revision history

Version No.	Revision date	Major contents of revision
Initial version	August 2005	Established
2.0	November 2006	Added "specified poisonous substances" of Poisonous and Deleterious Substances Control Law to prohibited substances Added 2,2,2-trichloro-1,1-bis(4-chlorophenyl)ethanol to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added hexachloro-1,3-butadiene to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Changed pentachlorophenol (alias PCP) or its sodium salt from a control substance to prohibited substances
3.0	December 2009	Corrected the threshold value of cadmium from 75 to 100 ppm Added 2-(2H-1,2,3-Benzotriazole-2-yl)-4,6-di-tert-butylphenol to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added asbestos to prohibited substances (76/769/EEC) Added PFOS (Perfluorooctanesulfonic acid and its salt) to prohibited substances (2006/122/EC) Added cobalt chloride to prohibited substances (2003/34/EC) Added dimethyl fumarate (DMF) to prohibited substances (2009/251/EC) Changed SVHC (substances of very high concern) of REACH regulation to control substances
3.1	March 2010	Added the second substances of SVHC (substances of very high concern) of REACH regulation to control substances
3.2	May 2010	Added perfluoro(octane-1-sulfonic acid) (alias PFOS) or its salt to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added perfluoro(octane-1-sulfonyl)fluoride (alias PFOSF) to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added pentachlorobenzene to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added $\alpha$ -hexachlorocyclohexane to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added $\beta$ -hexachlorocyclohexane to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added $\gamma$ -hexachlorocyclohexane to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added chlordecone to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added hexabromobiphenyl to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added pentabromodiphenyl ether to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added hexabromodiphenyl ether to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added heptabromodiphenyl ether to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law)
3.3	October 2010	Added the third substances of SVHC (substances of very high concern) of REACH regulation to control substances Added Tri-substituted organostannic compounds to control substances (Annex XVII of REACH regulation) Added dibutyltin compounds to control substances (Annex XVII of REACH regulation) Added dioctyltin compounds to control substances (Annex XVII of REACH regulation) Added 2-(2-methoxyethoxy)ethanol (DEGME) to control substances (Annex XVII of REACH regulation) Added cyclohexane to control substances (Annex XVII of REACH regulation)
3.4	February 2011	Added the fourth substances of SVHC (substances of very high concern) of REACH regulation to control substances Changed Annex XVII of REACH regulation to prohibited substances
3.5	August 2011	Added the fifth substances of SVHC (substances of very high concern) of REACH regulation to control substances
3.6	February 2012	Added the sixth substances of SVHC (substances of very high concern) of REACH regulation to control substances Changed dibutyltin compounds and dioctyltin compounds to prohibited substances
3.7	October 2012	Added the seventh substances of SVHC (substances of very high concern) of REACH regulation to control substances
4.0	March 2013	Added the eighth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added red phosphorus to control substances (Measures to migration) Modification according to RoHS2 (2011/65/EU)
4.1	January 2014	Added the ninth and tenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added endosulfan to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added hexabromocyclododecane (HBCDD) to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added PFOA to prohibited substances (Norwegian regulations) Added ionizing radiation to prohibited substances (Carcinogenic substances (Group 1) of Japan Society for Occupational Health) Added the specified chlorine-based flame retardant to prohibited substances (Vermont state law) Added indium compounds, ethylbenzene, propylene oxide, 1,1-dimethylhydrazine, and nickel compounds to control substances
4.2	September 2014	Added the eleventh substances of SVHC (substances of very high concern) of REACH regulation to control substances Added BNST to prohibited substances (Prohibition of Certain Toxic Substances Regulations in Canada) Request for submission of AIS data
4.3	March 2015	Added the twelfth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added the RoHS additional 4 candidate substances to control substances Added 1,2-dichloropropane, DDVP, chloroform, styrene, acethylene tetrachloride, and methyl isobutyl ketone to control substances (Group 2 of the Specified Chemicals Ordinance)
5.0	November 2015	Added the thirteenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added naphthalene and refractory ceramic fiber to control substances (Group 2 of the Specified Chemicals Ordinance) Changed 4 substances of phthalic ester of RoHS to prohibited substances New establishment of certificate of 4 substances of phthalic ester of RoHS
5.1	September 2016	Added the fourteenth and fifteenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added pentachlorophenol or its salt or ester to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Corrected the number of chlorine atoms of polychlorinated naphthalene to 2 or more (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added polychlorinated naphthalene (1 or more chlorine atoms) to prohibited substances (POPs regulation) Added inorganic ammonium salt to prohibited substances (Annex XVII of REACH regulation)
5.2	March 2017	Added the sixteenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added o-toluidine to control substances (Group 2 of the Specified Chemicals Ordinance) Added polycyclic aromatic hydrocarbon (PAH) to control substances (Annex XVII of REACH regulation)

Revision history

Version No.	Revision date	Major contents of revision
5.3	February 2018	Added the seventeenth and eighteenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Added perfluorooctanoic acid (PFOA) to prohibited substances (Annex XVII of REACH regulation) Added diantimony trioxide to control substances (Group 2 of the Specified Chemicals Ordinance) Correction of RoHS exempt use
5.4	November 2018	Added the nineteenth substances of SVHC (substances of very high concern) of REACH regulation to control substances Description of polychlorinated normal paraffin as Class I specified chemical substance of Chemical Substances Control Law Description of decabromodiphenyl ether (PBDE) as Class I specified chemical substance of Chemical Substances Control Law Abolition of AIS and request for submission of chemSHERPA data Correction of RoHS exempt use
5.5	September 2019	Added the 20th and 21th substances of SVHC (substances of very high concern) of REACH regulation to control substances Correction of RoHS exempt use Guarantee of conforming to additional restricted Phthalate 4 substances by RoHS Directive is abolished and RoHS Directive and non-containing guarantee of prohibited substances is integrated into 10 substances
5.6	April 2020	Added the 22th substances of SVHC (substances of very high concern) of REACH regulation to control substances Changed the denominator of the SVHC content to the mass of each product, which consists of the masses of the products Corrections and additions of RoHS exempt use Excluded BNST from the banned substances (the applicable law was repealed) Added a form for lead-free metals to the RoHS declaration forms (Form 14) Added an area to add information regarding the elimination plan for use that falls under the exceptions recognized by the RoHS Directive (Form 6)
5.7	March 2021	Added the 23th and 24th substances of SVHC (substances of very high concern) of REACH regulation to control substances Added POPs Convention (Appendix A) and TSCA to prohibited substances Added "Rate of Content in parts" column to SVHC questionnaire Added batch input buttons to the survey form and report Deleted Class II Specified Chemical Substances in the Specified Chemical Ordinance and substances specified by the Water Pollution Prevention Act from the controlled substances Correction of RoHS exempt use