Guideline for Control of Chemical Substances (Seventh Edition)

Ver7.0

Parts and Materials

Cover Sheet

March, 2025

SANYO DENKI CO., LTD.

To our suppliers:

Guideline for Control of Chemical Substances
-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. For delivered products, chemSHERPA, warranty (Forms 7 and 8) and measurement data of ICP, GC/MS, etc. shall be submitted.
If chemSHERPA submission is not possible, a survey form (Form 6) shall be submitted.

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. 7 or 8.
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 7 or 8).

(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

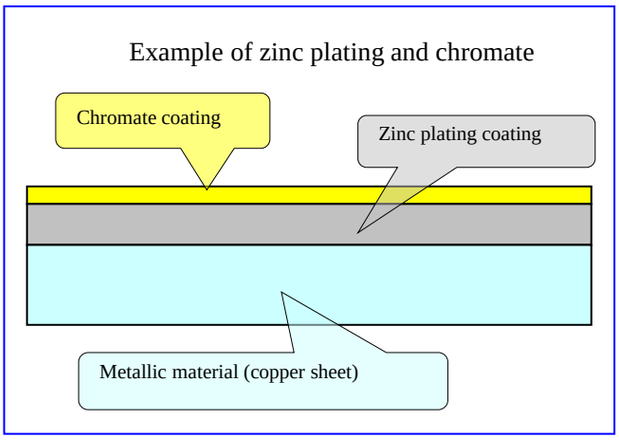
The substance is not intentionally added, filled, or adhered, or the substance is used in the natural materials and can not be completely removed technically in the refining process as the industrial material.

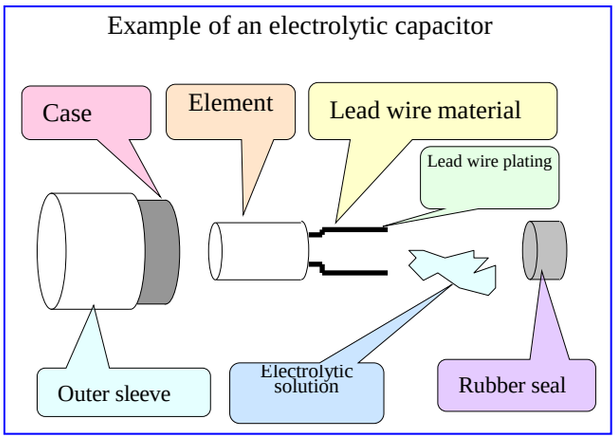
4) Homogeneous material

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

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

1. Cadmium (Cd) : 100 ppm
2. Lead (Pb)* : 1000 ppm
3. Hexavalent chromium (Cr6+): 1000 ppm
4. Mercury (Hg) : 1000 ppm
5. PBB : 1000 ppm
6. PBDE : 1000 ppm
7. DEHP : 1000 ppm
8. BBP : 1000 ppm
9. DBP : 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	
			Category1-7,10	Category8,9,11
Mercury	1(f)-Ⅰ	For lamps designed to emit mainly light in the ultraviolet spectrum: 5 mg	5:Feb.24,2027	-
	2(b)(4)-Ⅰ	Lamps for other general lighting and special purposes (e.g. induction lamps): 15 mg	5:Feb.24,2025	-
	2(b)(4)-Ⅱ	Lamps emitting mainly light in the ultraviolet spectrum: 15 mg	5:Feb.24,2027	-
	2(b)(4)-Ⅲ	Emergency lamps: 15 mg	5:Feb.24,2027	-
	4(a)-Ⅰ	Mercury in low pressure non-phosphor coated discharge lamps, where the application requires the main range of the lamp□spectral output to be in the ultraviolet spectrum: up to 15 mg mercury may be used per lamp	5:Feb.24,2027	-
	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 > 80: P ≤ 105 W: 16 mg may be used per burner	5:Feb.22,2027	-
	4(c)-Ⅰ	P < 155 W :20 mg	5:Feb.24,2027	-
	4(c)-Ⅱ	155W＜P＜405W：25mg	5:Feb.24,2027	-
	4(c)-Ⅲ	P > 405 W : 25 mg	5:Feb.24,2027	-
	4(e)	Mercury in metal halide lamps (MH)	5:Feb.22,2027	-
	4(f)-I	Mercury in other discharge lamps for special purposes not specifically mentioned in this Annex	5:Feb.24,2025	-
	4(f)-II	Mercury in high pressure mercury vapour lamps used in projectors where an output > 2000 lumen ANSI is required	5:Feb.24,2027	-
	4(f)-III	Mercury in high pressure sodium vapour lamps used for horticulture lighting	5:Feb.24,2027	-
	4(f)-IV	Mercury in lamps emitting light in the ultraviolet spectrum	5:Feb.24,2027	-
Lead	5(b)	Lead in glass of fluorescent tubes not exceeding 0,2 % by weight	Jul.21,2016	-
	6(a)	Lead as an alloying element in steel for machining purposes and in galvanized steel containing up to 0,35 % lead by weight	-	Other 8 and 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	-	Other 8 and 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	Other 8 and 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	Other 8 and 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	Other 8 and 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	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Cadmium	8(b)	Cadmium and its compounds in electrical contacts	-	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,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 ≥ 200 Hz.	Jul.21,2021	-
Hexavalent chromium	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 ≥ 75 W at constant running conditions, - designed to fully operate with non-electrical heater.	Jul.21,2021	-
	9(a)-III	Up to 0,7 % hexavalent chromium by weight, used as an anticorrosion agent in the working fluid of the carbon steel sealed circuit of gas absorption heat pumps for space and water heating	1:Dec.31,2026	-
Lead	13(a)	Lead in white glasses used for optical applications	Jul.21,2021	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Lead/ Cadmium	13(b)	Cadmium and lead in filter glasses and glasses used for reflectance standards	-	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024

Substance Name	Item number	Exemption	Legal expiration dates	
			Category1-7,10	Category8,9,11
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	15	Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages	-	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,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 mm2 or larger in any semiconductor technology node; - stacked die packages with die of 300 mm2 or larger, or silicon interposers of 300 mm2 or larger.	Jul.21,2021	-
	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 ($BaSi_2O_5$:Pb)	Jul.21,2021	Other 8 and 9:Jul.21,2021 11:Jul.21,2024
	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
	24	Lead in solders for the soldering to machined through hole discoidal and planar array ceramic multilayer capacitors	Jul.21,2021	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
	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	11:Jul.21,2024
	32	Lead oxide in seal frit used for making window assemblies for Argon and Krypton laser tubes	Jul.21,2021	Other 8 and 9:Jul.21,2021 9industrial:Jul.21,2024
	34	Lead in cermet-based trimmer potentiometer elements	Jul.21,2021	Other 8 and 9:Jul.21,2021 8in vitro:Jul.21,2023 9industrial,11:Jul.21,2024
Cadmium	39(a)	Cadmium selenide in downshifting cadmium-based semiconductor nanocrystal quantum dots for use in display lighting applications (< 0,2 µg Cd per mm2 of display screen area)	Nov.21,2025	Nov.21,2025
	39(b)	Cadmium in downshifting semiconductor nanocrystal quantum dots directly deposited on LED semiconductor chips for use in display and projection applications (< 5 µg Cd per mm2 of LED chip surface) with a maximum amount per device of 1 mg	Dec.31,2027	Dec.31,2027
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 ≥ 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
	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
Lead/ Hexavalent chromium	45	Lead diazide, lead styphnate, lead dipicramate, orange lead (lead tetroxide), lead dioxide in electric and electronic initiators of explosives for civil (professional) use and barium chromate in long time pyrotechnic delay charges of electric initiators of explosives for civil (professional) use	-	11:Apr.20,2026
Lead/ Cadmium	46	Cadmium and lead in plastic profiles containing mixtures produced from polyvinyl chloride waste (hereinafter referred to as “recovered rigid PVC”), used for electrical and electronic windows and doors, where the concentration in the recovered rigid PVC material does not exceed 0,1 % cadmium by weight and 1,5 % lead by weight.	-	11:May.28,2028

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

9industrial - for category 9 industrial monitoring and control instruments

Other 8 and 9 … Categories 8 and 9 not belonging to specific subcategory

(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 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. TSCA：Toxic Substances Control Act
10. Packaging and packaging waste directive（94/62/EC）
11. Class 1 substances (permission for production required) according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
12. French Law 2020-105 relating to the fight against waste and the circular economy
13. Red phosphorus migration measures (for resin parts covering electrodes)

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	• Chemical compound semiconductors and copper foil for a printed circuit board including arsenic as a component. • A material in which arsenic of 1000 ppm or less content is included as an impurity.

Name of the Substance: Beryllium and its Compounds	
Exempted Material	• Copper Beryllium Alloy, Nickel-Beryllium Alloy • A material in which beryllium of 1000 ppm or less content is included as an impurity.

3) Controlled substances

We specify controlled substances based on the following regulations:

1. California Proposition 65
2. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex ⅩⅦ
3. Health Canada
4. Registration, Evaluation, Authorisation and Restriction of Chemicals SVHC（Substance of Very High Concern）
5. Measures to migration

Documents to be submitted (Notes)

Please send all responses by e-mail.

1) **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/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.
Please use half-width alphanumeric characters to input the component names in the component information.
If SVHC is contained, be sure to write the SCIP information into the component information and legal compliance judgment information. Be sure to make an error check to submit data with no error and warning.
Download "Data entry support tool for the chemSHERPA-AI" from the following URL.

https://chemsherpa.net/english/tool

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.

2) **Form 6 "Environmentally Harmful Substances (Parts and Materials) Survey Sheet"**

If you are unable to submit chemSHERPA-AI data, please fill out and submit the survey form (Form 6).
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.

3) **Form 7 "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 8 "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**"**

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

4) **The analytical data such as ICP based on the actual measurement shall be submitted together.**

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 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.

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)

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

No.

Please submit this survey form if chemSHERPA cannot be submitted.

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):

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 exceptions 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	Jointing (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)

Prohibited substances（Please refer to the list of prohibited substances (Attachment 7)

（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)	Material Content (Sanyo No.)	Containing Part	Intended Use	Remarks "Substitution planned, substitute products," etc.
3. Class 1 & 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances	Y	Dechlorane Plus(609) UV-328(610)	tape Metal fittings	Flame retardants Surface Treatment	Alternative plan is available. Reduced in Dec. 20** Unscheduled for reduction.
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 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.Five PBT substances under TSCA regulation					
10. Packaging and packaging waste directive（94/62/EC）(Apply the material to pack the products shipped by Sanyo Denki)					
11. Class 1 substances (permission for production required) according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances					
12. French Law 2020-105 relating to the fight against waste and the circular economy (Applied to packaging materials and attached manuals for products shipped by Sanyo Denki)					
13. Red phosphorus (prohibition of the use of red phosphorus and red phosphorus-based fire retardants in the resin parts covering the electrodes)					

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
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 Heal; EU REACH regulation Annex ⅩⅦ
475	Di-isodecyl phthalate(DIDP)							Proposition 65
476	Di-n-hexyl phthalate(DnHP)							Proposition 65
523	Diisononyl Phthalate(DINP)							Proposition 65
268	Nickel or its compounds (Report if it is used intentionally: For control）							EU REACH regulation Annex ⅩⅦ
341	Dioctyltin compound (Content of 0.1 wt% or more of the delivered product as converted to tin)							EU REACH regulation Annex ⅩⅦ
185	Antimony and its compounds (Diantimony trioxide should be listed in No541.)							Substances for confirmation of environmental loads
541	Diantimony trioxide							Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
58	Formaldehyde							Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances,Environmental load grasping substance
294	Perchlorates							California state law
246	Organobromine compounds （except PBB、PBDE、HBCDD）							Substances for confirmation of environmental loads
238	Polyvinyl chloride(PVC)							Substances for confirmation of environmental loads
455	Red phosphorus (for resin parts covering electrodes) （Whether migration measures have been taken shall be described in the remarks.）							Measures to migration
611	Red phosphorus flame retardant (for resin parts covering electrodes) （Whether migration measures have been taken shall be described in the remarks.）							Measures to migration
484	Bisphenol A(BPA)							Health Canada

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
	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.			-
	25th SVHC 8 substances	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	26th SVHC 4 substances	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	27th SVHC 1 substance	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	28th SVHC 9 substance	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	29th SVHC 2 substance	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	30th SVHC 5 substances	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	31th SVHC 1 substance	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	31th SVHC Addition 1 substance	-	-		If contained, develop the details using the "+" button on the left for entry.			-
	32th SVHC 5 substances	-	-		If contained, develop the details using the "+" button on the left for entry.			-

List of Banned Substances

Attachment7

Banned 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	Applicable Regulations
1. Ozone layer protection related laws such as regulations on specific substances (substances regulated under the Montreal Protocol)		
1	CFC	Ozone layer protection laws
2	Halon	Ozone layer protection laws
3	Carbon tetrachloride	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 Pollutio
4	1, 1, 1-trichloroethane (Another name: Methyl chloroform)	Ozone layer protection laws, Water Pollution Control Law; Waste Disposal and Public Cleaning Law
5	HCFC	Ozone layer protection laws
6	HBFC	Ozone layer protection laws
7	Methyl bromide（Another name: Bromomethane)	Ozone layer protection laws; Class 2 substances according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances
256	Bromochloromethane	Ozone layer protection laws
2. Article 55 of the Industrial Safety and Health Law (prohibition of production, import, and use)		
16	Yellow phosphorus match	Article 55 of the Industrial Safety and Health Law
17	Benzidine and its salts	Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
18	4-aminodiphenyl and its salts (Another name: 4-biphenylamine)	Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
73	Asbestos	Article 55 of the Industrial Safety and Health Law
21	4-nitrobiphenyl and its salts	Article 55 of the Industrial Safety and Health Law
22	Bis(chloromethyl)ether	Article 55 of the Industrial Safety and Health Law; notification of carcinogenicity
23	β-naphthylamine and its salts	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	Article 55 of the Industrial Safety and Health Law
3. Class 1 & 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances		
68	PCB(polychlorinated biphenyl)	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)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
112	Hexachlorobenzene	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
113	Aldrine	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
114	Dieldrin	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
115	Endrine	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
116	DDT	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
117	Chlordanes (Another name: Heptachlor)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
118	Bis(tributyltin)oxide	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	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	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 - methylidene bicyclo [2, 2, 1] heptane (Another name: Toxaphene)	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)	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-(2-chlorophenyl)-1-(4-chlorophenyl)ethanol or 2,2,2-trichloro-1,1-bis(4-chlorophenyl)ethanol (also known as kelthane or dicofol)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
287	Hexachlorobuta-1, 3-Diene	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)	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	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
328	Erfluorooctane sulfonyl fluoride (PFOSF)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
329	Pentachlorobenzene	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)	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)	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)	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)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
334	Hexabromobiphenyl	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)	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)	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)	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)	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	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
482	Hexabromocyclododecane(HBCDD)	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	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.)	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)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
296	Perfluorooctanoic acid (Synonym: PFOA) or its salt	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
589	Perfluoro(hexane-1-sulfonic acid) (also known as PFHxS) or perfluoro(alkanesulfonic acid) (limited to those with a branched structure and six carbon atoms) or their salts	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
608	1,1,1-Trichloro-2,2-bis(methoxyphenyl)ethane (also known as methoxychlor)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
609	1,2,3,4,7,8,9,10,13,13,14,14-Dodecachloro-1,4,4a,5,6,6a,7,10,10a,11,12,12a-dodecahydro-1,4:7,10-dimethanodibenzo[a,e]cyclooctene (Other name: Dechlorane Plus)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
610	2-(2H-1,2,3-Benzotriazol-2-yl)-4,6-di-tert-pentylphenol (also known as UV-328)	Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
121	Trichloroethylene(Another name: Trichlene)	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	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	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)	Class 2 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
619	Poly(oxyethylene) = alkylphenyl ether (only those with alkyl groups of 9 carbon atoms) (also known as NPE)	Class 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		
211	Dioxins Polychlorodibenzofran (PCDF) Polychlorodibenzo-para-dioxin (PCDDs) Coplanar - polychlorinated biphenyl	Dioxin regulations
5. Registration, Evaluation, Authorisation and Restriction of Chemicals Annex ⅩⅦ, etc.		
62	Tris(2,3-dibromopropyl)phosphate	EU REACH regulation Annex ⅩⅦ
197	Polychlorinated terphenyls(PCT)	EU REACH regulation Annex ⅩⅦ
245	Azo dye/pigment (azo dye/pigment that forms a specific amine) (only applicable to areas that may come in contact with the skin)	EU REACH regulation Annex ⅩⅦ; German commodity goods ordinance
270	DBBT（monomethyl-dibromo-diphenylmethane）	EU REACH regulation Annex ⅩⅦ
272	Monomethyltetrachlorodiphenilmethane(Ugilec141)	EU REACH regulation Annex ⅩⅦ
273	Monomethyl-dichloro-diphenylmethane(Ugilec121,21)	EU REACH regulation Annex ⅩⅦ
274	Tris-aziridinyl phosphinoxide	EU REACH regulation Annex ⅩⅦ
289	Asbestos	EU REACH regulation Annex ⅩⅦ
339	Trisubstituded organotin compounds	EU REACH regulation Annex ⅩⅦ
342	2-(2-methoxyethoxy)ethanol (DEGME)(Prohibited only for legal purposes)	EU REACH regulation Annex ⅩⅦ
343	Cyclohexane(Limited to neoprene-based contact adhesives)	EU REACH regulation Annex ⅩⅦ
340	Dibutyltin compound	EU REACH regulation Annex ⅩⅦ
341	Dioctyltin compound (Prohibited only for legal purposes) （Describe the usage that is not specified in laws in Form 6.）	EU REACH regulation Annex ⅩⅦ
292	Dimethyl Fumarate(DMF)	EU REACH regulation Annex ⅩⅦ
524	Inorganic ammonium salts(Limited to cellulose insulation)	EU REACH regulation Annex ⅩⅦ

Sanyo No.	Chemical Substance Name	Applicable Regulations
531	Polycyclic aromatic hydrocarbons (PAHs;Annex XVII substances) (Restricted to the resin parts which have direct contact with skin or oral cavity)	EU REACH regulation Annex ⅩⅦ
587	C9-C14 PFCAs and its salts and PFCAs related substances	EU REACH regulation Annex ⅩⅦ
291	Cobalt chloride	European Council Directive (2003/34/EC)
522	Polychlorinated naphthalene(1 or more chlorine atoms)	EU POPs Annex I
6. Law on the Regulation of Nuclear Source Material, Nuclear Fuels Material and Reactors		
251	Radioactive substances	Law on the regulation of nuclear reactors, etc.
7. Poisonous and Deleterious Substances Control Law (Specified Poisonous Substances)		
275	Octamethyl-pyrophosphoramide (Another name: Schradan)	Poisonous and Deleterious Substances Control Law
276	Tetraalkyl lead (Another name: Tetramix)	Poisonous and Deleterious Substances Control Law
277	Diethylparanitrophenilthiophosphate (Another name: Parathion)	Poisonous and Deleterious Substances Control Law
278	Dimethylethylmercapto. ethylthiophosphate (Another name: Demeton-methyl)	Poisonous and Deleterious Substances Control Law
279	Dimethil-(diethylamido-1-chlorocrotonyl)-phosphate (Another name: Phosphamidon)	Poisonous and Deleterious Substances Control Law
280	Dimethylparanitrophenilthiophosphate (Another name: Parathion-methyl)	Poisonous and Deleterious Substances Control Law
281	Tetraethylpyrophosphate (Another name: TEPP)	Poisonous and Deleterious Substances Control Law
282	Monofluoroacetate (Another name: Fluoroacetic acid)	Poisonous and Deleterious Substances Control Law
283	Monofluoroacetamide (Another name: Fluoroacetamide)	Poisonous and Deleterious Substances Control Law
284	Salts of monofluoroacetate	Poisonous and Deleterious Substances Control Law
285	Alminium phosphate	Poisonous and Deleterious Substances Control Law
8.Specific chlorinated flame retardants(Vermont Statutes)		
478	Tris(2-chloroethyl)phosphate	Specific chlorinated flame retardants(Vermont Statutes)
479	Tris(2-chloro-1-methylethyl)phosphate	Specific chlorinated flame retardants(Vermont Statutes)
480	Tris(1,3-dichloro-2-propyl)phosphate	Specific chlorinated flame retardants(Vermont Statutes)
9.Five PBT substances under TSCA regulation		
11	Decabromodiphenyl Ether (DecaBDE)	TSCA(USA),Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
253	2,4,6-tris(tert-butyl)phenol (2,4,6-TTBP)	TSCA(USA),Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
287	Hexachlorobutadiene (HCBD)	TSCA(USA),Class 1 chemical substances according to the Law Concerning Examination and Regulation of Manufacture and Handling of Chemical Substances
573	Phenol, Isopropylated Phosphate (3:1) (PIP 3:1)	TSCA(USA)
574	Pentachlorothiophenol (PCTP)	TSCA(USA)
10. Packaging and packaging waste directive（94/62/EC）(Apply the material to pack the products shipped by Sanyo Denki)		
485	Lead, mercury, cadmium, and hexavalent chromium contained in the package or packaging component (threshold: total 100ppm)	Packaging and packaging waste directive（94/62/EC）
11. Class 1 substances (permission for production required) according to the Ordinance on Prevention of Hazards due to Specified Chemical Substances		
40	Benzotrichloride	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
12. French Law 2020-105 relating to the fight against waste and the circular economy (Applied to packaging materials and attached manuals for products shipped by Sanyo Denki)		
591	Mineral oil ink Target use: Packing material, instruction manual [1] The content of mineral oil aromatic hydrocarbons (MOAH) comprising from 1 to 7 aromatic rings must be 1% or less. [2] The content of mineral oil hydrocarbons (MOAH) comprising from 1 to 2 aromatic rings and hydrocarbons saturated with mineral oil (MOSH) comprising from 16 to 35 carbon atoms must be 0.1% or less. [3] The content of mineral oil aromatic hydrocarbon (MOAH) comprising from 3 to 7 aromatic rings must be 1 ppm or less.	French Law 2020-105
13.Red phosphorus (prohibition of the use of red phosphorus and red phosphorus-based fire retardants in the resin parts covering the electrodes)		
455	Red phosphorus （Prohibition of the inclusion of red phosphorus in the resin parts covering the electrodes） （Products with migration measures are excluded）	Measures to migration
611	Red phosphorus flame retardant （Prohibition of the use of red phosphorus-based fire retardants in the resin parts covering the electrodes） （Products with migration measures are excluded）	Measures to migration

To: SANYO DENKI CO., LTD.　　Date:

(Parts and Materials)Form7

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 (describe on a separate sheet of paper if there is insufficient space in the form.)

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 List of Banned Substances (Attachment 7j) shall be referred for the subject banned substances.

Red phosphorus (prohibition of the use of red phosphorus and red phosphorus-based fire retardants in the resin parts covering the electrodes)（Products with coating treatment as a migration measure are excluded）

Name of Supplier: _____

Department in Charge: _____

Approved by (print the name): _____

(Signature): _____

Prepared by (print the name): _____

(Signature): _____

Attachment

No.	Sanyo Denki Item No.:	Product Name:	Product Model No.:	RoHS Exemption No.:
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To: SANYO DENKI CO., LTD.

Date:

(Parts and Materials)Form8

If submission of the RoHS Guarantee Ver.A (Form 7) is impossible, submit the Guarantee Ver.B (Form 8).

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 (describe on a separate sheet of paper if there is insufficient space in the form.)

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 List of Banned Substances (Attachment 7j) shall be referred for the subject banned substances.

Red phosphorus (prohibition of the use of red phosphorus and red phosphorus-based fire retardants in the resin parts covering the electrodes)（Products with coating treatment as a migration measure are excluded）

Name of Supplier:

Department in Charge:

Approved by (print the name):

(Signature):

Prepared by (print the name):

(Signature):

Attachment

No.	Sanyo Denki Item No.:	Product Name:	Product Model No.:	RoHS Exemption No.:
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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 α-hexachlorocyclohexane to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added β-hexachlorocyclohexane to prohibited substances (Class 1 Specified Chemical Substances in the Chemical Substance Control Law) Added γ-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
5.8	March 2022	Added the 25th and 26th substances of SVHC (substances of very high concern) of REACH regulation to control substances Transfer of PFOA and dicofol from Stockholm Convention on POPs to Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Deletion of PFOA from Annex XVII to REACH Regulation Addition of PFCAs to non-containing guarantee target substances in Annex XVII to REACH Regulation Transfer of five PBT substances under TSCA regulation to non-containing guarantee target substances Deletion of thallium, tellurium, bismuth, chromium compound and beryllium oxide from controlled substances Correction of RoHS exempt use
5.9	March 2023	Added the 27th and 28th substances of SVHC (substances of very high concern) of REACH regulation to control substances Banned amosite and crocidolite changed to asbestos Added POPs Convention (Appendix A) : PFHxS to prohibited substances Added US Toxic Substances Control Act (TSCA) : LCPFACs to prohibited substances Pentachlorophenol and Chlorinatedparaffins(C10-13), which are REACH banned substances, are integrated into the Chemical Substances Control Law Added French Law 2020-105 relating to the fight against waste and the circular economy : MOAH to prohibited substances Correction of RoHS exempt use
6.0	March 2024	Added the 29th and 30th substances of SVHC (substances of very high concern) of REACH regulation to control substances Transfer of PFHxS from Stockholm Convention on POPs to Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Addition of methoxychlor, dechloranplus, and UV-328 to the POPs Convention (Annex A) Added red phosphorus flame retardant to controlled substances (other) Deletion of DBB（di-μ-oxo-di-n-butylstanniohydroxyborane） from Annex XVII to REACH Regulation Added French Law 2020-105 relating to the fight against waste and the circular economy : MOSH to prohibited substances Correction of RoHS exempt use
7.0	March 2025	Change of the survey form into 1 sheet and revision of the submission documents in accordance with the renewal of the chemical substance management system Deletion of carcinogenic substances and greenhouse gases that cause global warming from the List of Banned Substances Deletion of multiple controlled substances as a result of a strict selection of necessary substances Transfer of methoxychlor, Dechlorane Plus, and UV-328 from the POPs Convention to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Addition of polyoxyethylene alkyl phenyl ether (NPE) to the Act on the Evaluation of Chemical Substances and Regulation of Their Manufacture, etc. Added the 31th and 32th substances of SVHC (substances of very high concern) of REACH regulation to control substances Correction of warranty to apply to multiple part numbers and addition of red phosphorus Correction of RoHS exempt use