

The Canon Green Procurement Survey Survey Form Entry Manual Ver. 8.30 (Compliance with chemSHERPA)

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Note

As a rule, please reply by Japanese or English for Canon Green Procurement Survey. If impossible, please contact to survey requester.



1. Goal of this Manual

Goal of this Manual

This Manual provides an explanation of the following content.

•Concepts behind surveys of chemical substances in products conducted with the use of chemSHERPA tools, answer procedures for those surveys, etc. with a focus on areas concerning the operation of chemSHERPA in the Canon Group (For information on universal methods of use for chemSHERPA tools, please refer to the manual posted on the chemSHERPA website, which is located at the below URL.)

https://chemsherpa.net/english

•Overview of non-chemSHERPA tool survey sheets that are unique to the Canon Group (explained on next page).

In providing your firm's answers, please verify the content that Canon is requesting your firm to conduct a survey on, and make sure to read this Manual first.



2. Survey Forms

Survey Forms

The survey sheets used in the Canon Group can largely be divided into the following.

(1) chemSHERPA survey: Used to survey information on chemical substance content pertaining to parts and materials predominantly for electric and electronic equipment.

(2) Survey sheets unique to Canon

survey is unnecessary

(2) -1: Packaging Survey: Used to survey information on the chemical substance content required in packaging and various other information. Canon will send this survey sheet to your firm if packaging is the survey target.

(2) -2: Canon's Additional Survey: Used to survey other chemical substance group information and environment-related information in order to acquire eco-labels or comply with the requirements of OEM suppliers and customers. Constitutes an additional survey on content that cannot be surveyed using chemSHERPA. Multiple kinds of sheets for Canon's Additional Surveys exist, and are sent to your firm from Canon depending on which sheets are necessary.

The configuration of surveys conducted by the Canon Group can be summarized as the below four types.

Even when a survey has already been conducted, in instances when an additional survey, etc. arises due to a process change application, trends in laws and regulations or other factors, Canon may take the liberty of conducting another survey.



P. 3



3. Green Procurement Survey Concepts

3-1. Basic Concepts behind the Green Procurement Survey

When preparing your firm's answers, please do so using data that your firm has derived scientifically and content your firm can be accountable for to the Canon Group. Given this request, this survey does not require that your firm use any particular analysis or measurement methodology.

Furthermore, we ask that you provide information on the presence of chemical substances in this survey in line with the definitions, scopes, and other concepts described later.

3-2. Concepts on Contained Substances

Definitions and concepts of terms in general follow those given in the manuals issued by JAMP*. This section gives the Canon Group's interpretations of these definitions and more detailed explanations.

Definition and Examples of Contained Substances

*JAMP = Joint Article Management Promotion-consortium

A chemical substance is said to be "present" in a part or material when it is included as a constituent part, element, or ingredient in a part or material that forms a product. Elements that contain substances are either *intentionally added* or *impurities*.

Intentionally Added

Intentionally added refers to the inclusion of a chemical substance in a part or material to produce a certain functionality. In other words, the desired configuration or form of the part or material cannot be obtained without the presence of the intentionally added substance.

Impurities

Impurities refers to chemical substances that cannot be completely removed by current industrial technology in cases like the following:

- chemical substances that exist in the natural world and are contained in natural materials
- by-products generated in the synthesis of materials or chemical substances as well as raw materials or catalysts that remain as residues after synthesis;
- chemical substances used in the manufacturing processes of parts and materials but not used to produce any specific functionality in the parts or materials;
- chemical substances contained in recycled materials used in metal refining, paper composition, or other processes.

3. Green Procurement Survey Concepts

Examples of Intentionally Added Substances and Impurities

Intentionally Added Substances

- ✓ Added PVC when flexible PVC is used in wire sheathing; also the phthalates used as plasticizing agents in flexible PVC
 - → PVC is used in sheathing for its functionality, such as its high insulation and chemical resistance properties. Phthalates are added to PVC to make it more flexible.
- \checkmark Lead added to free-cutting steel
 - → Lead is added to steel as a functional element, in this case improving the machinability of steel.
- ✓ Inorganic compounds (such as cadmium, lead, or chromium compounds) added as colorants to plastics
 - → Inorganic compounds are used as pigments to obtain certain colors in plastics.

Impurities

- · Chemical substances that exist in the natural world and are contained in natural materials
 - \checkmark Lead and cadmium found in zinc compounds that are added to rubber stabilizers
 - \checkmark Lead contained in tin plating or lead found in tin that is included in lead-free solder
 - \checkmark Cadmium contained in the zinc compounds found in brass materials
 - Lead and cadmium are metals that naturally occur in mineral ores and are unintentionally included in metal compounds produced from mineral ores. In particular, tin is known to frequently contain lead and zinc to contain lead and cadmium.
- By-products generated in the synthesis of materials or chemical substances as well as raw materials or catalysts that remain as residues after synthesis
 - Monomer components that cannot be completely removed from compound plastics, such as vinyl chloride monomers found in polyvinyl chlorides (PVC)
 - Polyvinyl chlorides are normally synthesized by suspension polymerization of vinyl chloride monomers (CHCl=CHCl). Since the polymer synthesis does not react 100 percent, some of the raw monomer components remain in the PVC. The PVC is purified to remove residual monomer components through reprecipitation or other processes. However, some trace amounts of unreacted monomer components are known to remain even after purification since complete removal of monomer components is scientifically difficult.
- Chemical substances used in the manufacturing processes of parts and materials but not used to produce any specific functionality in the parts or materials
 - ✓ Organic solvents used for cleaning after part assembly or material processing
 - Organic solvents are usually used to clean parts or materials of oils and debris that accumulate in the course of manufacturing or processing. These organic solvents are highly volatile and almost always disperse or disappear during processing. They are considered impurities, however, when solvent residues for some reason remain attached to parts or materials.
- Chemical substances contained in recycled materials used in metal refining, paper composition, or other processes
 - Recycled materials consist of closed-recycled materials, the composition of which is known, and open-recycled materials, where the composition is not accurately known. Open-recycled materials are particularly common in metal refining and recycled paper. When recycled, then, chemical substances that have been used in a variety of applications and configurations are present without producing any specific functionality.











Scope and Criteria for Determining the Presence of a Substance

Regardless of the processing history of parts or materials, the substances to be reported are based on the scope given in the Canon Group's Green Procurement Standards. This scope, which is used to decide whether a substance is present, is expressed as a threshold level. In this context, threshold levels are boundary values for determining the presence or non-presence of substances in parts and materials procured by the Canon Group. These threshold levels include not only numerical composition amounts (concentrations) but also the concepts of intentionally added, impurities, and special applications.

The threshold level is set for each substance category and intended use classification. In calculating the content (concentration) as an element of threshold definition, note that it differs depending on the intended use classification, for example, when the denominator is (1) homogeneous material or (2) product or subpart weight.

The threshold level is stated in the "Reporting threshold" blank on the chemSHERPA data entry support tool. Please answer this threshold level correctly.

Please provide your firm's answers on the chemSHERPA data entry support tool regarding your firm's determination of whether chemical substance content is present or non-present in accordance with the manual issued by chemSHERPA.

Concepts on Substance Masses

When reporting substance masses and composition amounts, please enter scientifically based data from:

- actual measurement values (such as analyzer data)
- theoretical or calculated values (using logical methodologies with a scientific basis)
- design values (amounts of substances used to provide specific functions to parts or materials)

There are cases where substance masses vary over a manufacturing lot. Some specific examples are as follows:

- when coating or additive amounts vary substantially in the manufacturing process (such as solder on circuit boards or plating layers in metal surfacing processes);
- when the composition ratio of a standard material ranges widely (JIS standard materials such as free-cutting steel or brass);
- when recycled materials are used;
- when the same part or material is manufactured at different sites.

In such cases, please report the maximum value, in principle, of the substance mass.

You may follow your own scientific calculation methods in cases where variances exist in substance masses. Should it be difficult to clarify the scientific background, please refer to the specific examples given in this manual.

When the types of substances present differ because the same part or material is manufactured at different sites, please report all substances that may possibly be present.







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4. About survey response using chemSHERPA

Data transmission through chemSHERPA consists of the following two methods.

For articles : a method using chemSHERPA-AI to transmit compliance information and composition information For chemicals : a method using chemSHERPA-CI to transmit composition information

For the detailed information, please refer to the following website of chemSHERPA. <u>https://chemsherpa.net/english</u>

Based on the operation and input manuals, this manual supplements the response method using the data entry support tool provided by chemSHERPA.

For rules on the use and the response method, please refer to Rules on the use of information on CiP (Chemicals in Products) under the chemSHERPA, various operation manuals, and input manuals, which are available from the above URL.

4-1. How to respond to the survey using chemSHERPA-AI

Features of chemSHERPA-AI and its operations in Canon group

The targets for information transmission of chemSHERPA-AI are articles, and the following two types of information are transmitted.

- Compliance information (the same information as in the existing JGP file)
- Composition information (the same information as in the existing AIS file)

Article

About the request of the survey using chemSHERPA-AI by Canon group, please provide the following information.

- Compliance information (Information on compliance with SCIP included when SVHC are contained): Required
- Composition information: Required

Starting with chemSHERPA V 2.02, you can enter SCIP information.

If SVHC is contained in the product, please enter SCIP information.

For information on SCIP database registration requirements and how to input data into chemSHERPA, please refer to the "chemSHERPA Guideline for SCIP" section of the chemSHERPA website.

*chemSHERPA Guideline for SCIP -> https://chemsherpa.net/english/tool#sample

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4. About survey response using chemSHERPA

1) Basic information to be included

Data to be given when the survey is requested

Canon group sends data containing the information to identify the targets for the survey through chemSHERPA-AI.

				Req	uester			
	All	CPS	CPL	Product name △	Product number △	Product name △	Product number △	Manufacturer name △
						*	*	
1		Show	Show	SampleA	A123			MakerA
2		Show	Show	SampleB	B456			MakerB
3		Show	Show	SampleC	C789			MakerC

Names of the survey targets managed by Canon group and IDs of part numbers etc. are listed.

Do not edit the information listed in the field of Product Number.

Product number of survey targets and Manufacturer name are listed in advance in as much detail as possible.

Please modify/edit them appropriately when responding to the survey. Please enter the product name and product number in alphanumeric characters (Half-width).

■ Data to be entered regarding information for Compliance

Entering the Content above the threshold and the Content rate and Quantity of content are mandatory. For the Substance/ Substance group which "Content above the threshold" is "Y", fill in the field of "Usage", and "Portion used" too. Please be sure to enter information especially when the field of Usage code is "Please enter the data".

Subject substance		Content above the threshold	Content rate	Quantity of d	content	Usage code		
Substance/Substance group	Reporting threshold	Show "Y" only	(ppm)	Quantity of	Unit	Input: Cell double-click	Usage	Portion used
		Batch "N"	*	*	*			
Dibutyltin (DBT) compounds	0.1 mass% of tin in the part [ReportingLevel:Product P…	~			~	Please enter the data.		
Dioctyltin (DOT) compounds	0.1 mass% of tin in the part [ReportingLevel:Product P…	~			~	Please enter the data.		
Disodium tetraborates	0.1 mass% of article [ReportingLevel:Article]	~			~			
Fluorinated Greenhouse Gases (PFC,…	Intentionally Added [ReportingLevel:Product]	~			~			
Hexabromocyclododecane (HBCDD)	Intentionally added or 0.01 mass% of article [Reportin…	~			~			
Lead/Lead Compounds	0.1 mass% of total Pb in homogenous material [Reporti-	~			~	Please enter the data.		

Composition information, Issuer/Authorizer information When entering Composition information or Issuer/Authorize information, please refer to the operation manual and the data entry manual provided by chemSHERPA.



2) If you directly enter the information for Compliance

How to create response data is the same as procedure in the survey using existing JGP file. For the basic data entry method, please refer to the AI operation manual, "13.3 Entering content above threshold level (Y/N) (for direct entry into compliance assessment information, instead of conversion from composition information)"

Please note the following when directly entering the information for Compliance

You may have to enter multiple intended Usage code for units consisting of more than one part. In such a case, please refer to the following example and then fill out the form.

Example of entering more than one intended Usage code for multiple lead items exempted from EU RoHS Directive.

Example 1. Add the line "0.1 mass% of total Pb in homogenous material" and enter all exempted items. (Enter all intended Usage codes.)

	Subject substance	Candidate item			Content above the threshold
	Substance/Substance group	Show "ON" only	Reportable applications	Reporting threshold	Show "Y" only
	Substance/Substance group	Clear			Batch "N"
14	Lead/Lead Compounds		All, except for batteries, cabl…	0.1 mass% of total Pb in homogenous material […	•

Add the line and enter all exempted items.

	Content above th threshold	e	Contont rate	Quantity o	f content		Usage code		
Reporting threshold	Show "Y" only	′	(ppm)	Quantity of	Unit		Input: Cell double-click	Usage	Portion used
	Batch "N"			content	onic				
		_		·	*	_			
0.1 mass% of total Pb in homogenous material	Y		37000	100	mg	•	RoHS-6(c)	Copper alloy	Connector
[ReportingLevel:Material]		-	850000	10	mg	•	RoHS-7(a)	electric connection	IC
			500000	1	mg	•	RoHS-7(c)-I	resistor	resistor part
		_							



Example 2. When the same exempted item is contained in more than one application area, enter information in any of the following ways.

• Example of entering information in one line

Enter the percentage of a part having the maximum content rate and describe the total value of content. For the field of "Usage" and "Portion used", enter information separating by a slash.

	Content above the threshold	1	Contont rate	Quantity of	fcontent		Usage code			
Reporting threshold	Show "Y" only		(ppm)	Quantity of	Unit		Input: Cell double-	Usage	Portion use	d
	Batch "N"			content	Offic		click			
	*	_	*	*	*	_				
0.1 mass% of total Pb in homogenous material	Y		37000	100	mg	•	RoHS-6(c)	Copper alloy	Connector	
[ReportingLevel:Material]			900000	18	mg	•	RoHS-7(a)	electric connection	IC-A/IC-B/IC-C	2
		•	500000	12			RoHS-7(c)-I	resistor/piezoelectric	resistor part/os	cillat
					mg	•		ceramic	or/clock	
		_				_				

Enter the same content by inputting data one by one.

Example of entering information in more than one line For each part, enter information in the field of "Content rate", "Quantity content", "Usage", and "Portion used" per line.

	Content above the threshold	e	Contont rate	Quantity o	f content		Usage code			
Reporting threshold	Show "Y" only	'	(ppm)	Quantity of	Unit		Input: Cell double-click	Usage	Portion u	ed
	Batch "N"			content	onic					
	*		*	*	*					
0.1 mass% of total Pb in homogenous material	Y		37000	100	mg	•	RoHS-6(c)	Copper alloy	Connector	
[ReportingLevel:Material]			900000	10	mg	•	RoHS-7(a)	electric connection	IC-A	
			870000	5	mg	•	RoHS-7(a)	electric connection	IC-B	
		-	850000	3	mg	•	RoHS-7(a)	electric connection	IC-C	
			500000	5	mg	•	RoHS-7(c)-I	resistor	resistor part	
			400000	4	mg	•	RoHS-7(c)-I	piezoelectric ceramic	oscillator	
			300000	3	mg	•	RoHS-7(c)-I	piezoelectric ceramic	clock	



3) If you enter the information for compliance by conversion after entering the composition information

For the basic data entry method after entering composition information, please refer to the AI operation manual, "13.2 Enter content above threshold level (Y/N) (for entry by converting from composition information)". For the conversion specification, please refer to, "17. Specification of automatic conversion of compliance assessment information from composition information ".

Please note the following when enter the information for compliance by conversion after entering the composition information

You may have to enter multiple intended use codes for units consisting of more than one part. In such a case, please refer to the following example and then fill out the form.

• Example of entering more than one intended use code for multiple lead items exempted from EU RoHS Directive. The composition information includes intended Usage of material for each material. When there are multiple intended Usage of material, as shown in the following figure, "intended Usage of material" are displayed in multiple lines by converting composition information into the compliance information. In such a case, complete the data as it is.

	Content above the threshold	2	Content rate	Quantity	of content		Usage code		
Reporting threshold	Show "Y" only		(ppm)	Quantity of	Unit		Input: Cell double-	Usage	Portion used
	Batch "N"			content	onne		click		
	*		*	*	*				
0.1 mass% of total Pb in homogenous material	Y		465000	465	mg	•	RoHS-7(c)-I	1.base material	resistor A
[ReportingLevel:Material]			465000	930	mg	•	RoHS-7(c)-I	1.base material	resistor B
		_	465000	1.395	g	•	RoHS-7(c)-I	1.base material	resistor C
			465000	465	mg	-	RoHS-7(c)-I	1.base material	piezoelectric ceramic D
			465000	930	mg	•	RoHS-7(c)-I	1.base material	piezoelectric ceramic E
			465000	1.395	g	•	RoHS-7(c)-I	1.base material	piezoelectric ceramic F
		_				_	7	·	

Usage of material by conversion



4) If you output (authorization) the response data after creating it

The error is checked by creating the response data for chemSHERPA-AI and then outputting (authorizing) it. Since items with red asterisk (*) are information required for data preparation, the response data cannot be output (authorized) as a valid file if there are blanks.

For example, if "Product Name" and "Product Number" fields are left blank, it will be an error and cannot be output as a valid file. If you don't know "product name" and "product number", as would be the case with Canon's custom parts, complete the response data by filling in the "Product Name" and "Product Number" fields of the Product Information with "product name" and "product number" shown in the Requester's product information.

				Req	uester						
	All	CPS	CPL	Product name 🛆	Product number 4	Produ	uct name △	Product n	umber ∆	Manufacturer name	Δ
							*				
1	\checkmark	Show	Show	SampleA	A123					MakerA	
2	\checkmark	Show	Show	SampleB	B456					MakerB	
3	\square	Show	Show	SampleC	C789					MakerC	
Error	descrip	otion view									

No Type					
ino iype	Name of view	Row number	Name of item	Erro	description
1 Error Ge	ieneral	1	Product name	Product name is not entered.	
2 Error Ge	ieneral	1	Product number	Product number is not entered.	
3 Error Ge	eneral	2	Product name	Product name is not entered.	
4 Error Ge	eneral	2	Product number	Product number is not entered.	
5 Error Ge	ieneral	3	Product name	Product name is not entered.	
6 Error Ge	eneral	3	Product number	Product number is not entered.	
د	The data con file (nor be au temporary fil	tains errors and uthorized). Do y e?	d cannot be exported in you want to export the o	a standard data in a	,



5) If you enter the information for compliance judgement by converting data in the existing JGP file and AIS file

The chemSHEPRA AI Data entry support tool can read data in the following existing AIS and JGPSSI files. The tool converts read data and creates chemSHERPA AI data, which saves you from having to input data.

If you create chemSHERPA-AI data from AIS file

For the basic operation method, please refer to the AI operation manual, "18.1. Conversion of information from AIS to chemSHERPA" After conversion, complete the composition information file and then enter the information for compliance judgement in accordance with "3) If you enter the information for compliance by conversion after entering the composition information" on the previous page. When the existing data is loaded, intended usage codes which are outside the effective period may be set. Please make sure that intended usage codes are within the effective period and enter the latest information.

If you create chemSHERPA-AI data from JGP file

For the basic operation method, please refer to the AI operation manual, "18.2. Conversion of information from JGPSSI to chemSHERPA" After conversion, enter the information for compliance in accordance with "2) If you directly enter the information for Compliance " on the previous page.

When the existing data is loaded, intended use codes which are outside the effective period may be set. Please make sure that intended usage codes are within the effective period and enter the latest information.



FYI: About reportable application

Article tool (chemSHERPA-AI) : The point of inputting the information for Compliance (area IEC62474) ■ Ideas on Content above the threshold (Y/N)

Please refer to **"Rules on the use of information on CiP (Chemicals in Products) under the chemSHERPA_en"** 6.3. Criteria for transferring composition information : Table 1 Criteria for providing composition information

- Choose "Y" when a substance comes under "reportable application" and contains the declarable substance equal to or greater than "Reporting threshold"
- Choose "N" when a substance comes under "reportable application" but the content rate is below "Reporting threshold"
- Choose "N" when a substance does not come under "reportable application" though the content rate is equal to or greater than "Reporting threshold"
- Choose "Y" when a substance comes under "reportable application" or is unknown, and contains the declarable substance equal to or greater than "Reporting threshold" (judgement in terms of safety)
- Content flag is "Y" even when a substance contains the declarable substance within a range of exemption from application (It is judged by "reportable application" and "Reporting threshold")

Entering data with conversion function (from the composition information to the information for compliance) The function automatically converts the information for compliance on the basis of composition information. However, the function is "support function", and it is necessary to confirm the conversion result.

"EntryY" indicates that there is a possibility of "Y" status. Check subject substance (on the left side of the view), law/regulation, reportable application, and reporting threshold to modify content above threshold level to "Y" or "N".

* Be sure to modify "EntryY" to Y or N: as long as it remains, formal version of the file cannot be exported.

For some target substances, whether or not response is required depends on the "reportable application" Please contact the survey requester if you cannot determine the intended use of the product.



4-2. How to respond to the survey using chemSHERPA-CI

Features of chemSHERPA-CI

The targets subject to be transmitted by chemSHERPA-CI are chemical substances, and composition information (the same information as in the existing AIS file) is transmitted.



1) Basic information to be included

Data to be given when the survey is requested Canon group sends data containing the information to identify the targets for the survey using chemSHERPA-CI.

Requester				Produc	t	
Product name 🛛 🛆	Product number	Product name △	Product number 4	Manufacturer name 🔺	Product series name	Δ
			*			
General material/Material number	MX0001			Material Maker A		
Resin material/Grade No./Coloring No./Color	MY0010			Material Maker B		
Netal material/Metal Type/JIS symbols/Thickness	MZ0100			Material Maker C		
	1		1			-

The information to identify the survey targets are listed in the field of Product name.

ID numbers managed by Canon group are listed in the field of Product number.

Do not edit the information listed in the field of Product number.

Names of manufacturers which are the targets of the survey are listed in as much detail as possible.

Please modify/edit them appropriately when responding to the survey.



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4. About survey response using chemSHERPA

Data to be input on the Composition Information screen Selecting either "1" or "0" for "Content status on declarable substances" is mandatory. Please make sure that you select either of them.

Composition	
Product number Product name	Finalization date
Content status on declarable substances *	•
Composition Enlarge or Reduce: Ctrl+	1 This product contains the substance(s) listed in the relevant standard and to be notified.
	0 This product contains NO substances in the relevant standard and to be notified.

The substances subject to management are the substances subject to legal restrictions and industrial standards, which are listed on the next page.

You can check whether substances subject to management are included or not using names of substances included in "Substance search"

If you select "0" for "Content status on declarable substances" when substance names are listed in the field of Composition Information, it will be an error.

The error message

"Composition includes declarable substances. Please check the selection of content status on declarable substances." Please check if your selection for inclusion or not in substances subject to management is correct.

Substance coard					
Substance searc	ch		-	Sec. 1	
Filter substances Filter Cancel	LR01 LR04 LR02 LR05 LR03 LR06	4 📄 LR07 [5 📄 IC01 6 📄 IC02	Search English name CAS No.	Partial mat Full match EC No.	ch Substance Ver1.02.00
CAS	EC No.			NAME	A
100085-64-1	309-206-8	Quaternary	ammonium compo	unds, [2-[[2-[(2-carbox	(vethyl)(2-hydroxy
10022-31-8	233-020-5	Barium-nitr	ate		
10022-48-7		Dilithium d	ichromate (Li2Cr2O)	7) dihydrate	
10022-68-1		Cadmium n	itrate (Nitric acid cad	imium salt tetrahydrate ((Cd.2NO3.4H2O))
100231-59-2	309-359-0	Sodium [4-	[[6-[(4-amino-6-chl	pro-1,3,5-triazin-2-yl)a	mino]-1-hydroxy-3
1002-53-5		Dibutyl tin			
10025-68-0	233-037-8	Selenium c	hloride		
100258-44-4	309-388-9	Strychnidin	-10-one, arsenite (1:1	L)	-
					•
•					
•	CAS 100085-64-	-1 EC N	lo. 309-206-8	Select	Cancel
Substance Nar	CAS 100085-64- me [E] Quaternary amino]-2-c	-1 EC N ammonium compo pxoethyl]coco alkyldi	lo. 309-206-8 unds, [2-[[2-[(2-carb methyl, hydroxides, i	Select oxyethyl)(2-hydroxyethy nner salts	Cancel
Substance Nar	CAS 100085-64- me [E] Quaternary amino]-2-c me [E]	-1 EC N ammonium compo oxoethyl]coco alkyldi	lo. 309-206-8 unds, [2-[[2-[(2-carb methyl, hydroxides, i	Select oxyethyl)(2-hydroxyethy nner salts	Cancel I)amino]ethyl]
Substance Nai	CAS 100085-64 me [E] Quatemary amino]-2-c me [E]	-1 EC N ammonium compo xxxethyl]coco alkyldi	lo. 309-206-8 unds, [2-[[2-[(2-carb methyl, hydroxides, i	Select oxyethyl)(2-hydroxyethy nner salts	Cancel /l)amino]ethyl]
Substance Nai Substance group Nai	CAS 100085-64 me [E] Quatemary amino]-2-c me [E]	-1 EC N ammonium compo xxxethyl]coco alkyldi	 a09-206-8 ands, [2-[[2-[(2-carb methyl, hydroxides, i 	Select oxyethyl)(2-hydroxyethy nner salts	Cancel /l)amino]ethyl] 7[REACH Annex XVII]
Substance Nai Substance group Nai	CAS 100085-64 me [E] Quatemary amino]-2-c me [E]	-1 EC N ammonium compo xxxethyl]coco alkyldi LR04[R LR04[R	lo. 309-206-8 unds, [2-[[2-[(2-carb methyl, hydroxides, i	Select oxyethyl)(2-hydroxyethy nner salts	Cancel /l)amino]ethyl] /[REACH Annex XVII] [[GADSL]



FYI: Declarable substances Relevant management standards

Relevant standard ID	Laws & regulations, industrial criteria					
LR01	Chemical Substances Control Law (Japan): Class I Specified Chemical Substances					
LR02	Toxic Substances Control Act (TSCA) (US): Section 6					
LR03	EU ELV Directive 2011/37/EU Targeted substances list					
LR04	EU RoHS Directive 2011/65/EU ANNEX II Targeted substances list					
LR05	EU POPs REGULATION (EC) No 850/2004 Annex I					
LR06	EU REACH REGULATION (EC) No 1907/2006 The Candidate List of Substances of Very High Concern for Authorisation (SVHC), Authorisation List					
LR07	EU REACH REGULATION (EC) No 1907/2006 Annex XVII Restriction substances					
LR08	EU Medical Devices Regulation (MDR) (EU)2017/745 : Annex I 10.4 Substances					
IC01	Global Automotive Declarable Substance List (GADSL)					
IC02	IEC 62474 DB Declarable substance groups and declarable substances					



2) If you enter data by converting data in the existing MSDSplus file.

The chemSHEPRA CI can read data in the existing MSDSplus file. The tool converts read data and creates chemSHERPA CI data, which saves you from having to input data.

For the basic operation method, please refer to CI Operation manual, "15. Specification of conversion function for MSDSplus to chemSHERPA" After conversion, make sure that you press the "Update substance Information" button and compare with the substance list for search stipulated by chemSHERPA.

For substances which are not listed in the substance list for search stipulated by chemSHERPA, report them as "Optional reporting substance." Be sure to select either "1" or "0" for Content status on declarable substances

Composition	
Product number Product name	Finalization date
Content status on declarable subs	tances *
Composition Enlarge or Re	educe: Ctrl+: 1 This product contains the substance(s) listed in the relevant standard and to be notified.
	0 This product contains NO substances in the relevant standard and to be notified.



5. Packaging Survey Sheet

Packaging Survey Sheet

The Packaging Survey Sheet is a survey form used in the following cases:

- When materials procured by the Canon group are used only for packaging purposes
- When materials procured by the Canon group are transported and sold in the form as they were procured and it is necessary to check the packaging for the materials

The survey items are as follows:

- Survey on packaging standards defined in the Green Procurement Standards
- Social requirements
- Items required by customers

On the survey sheets, please provide your firm's answers regarding the two below sheets.

(1) Packaging(Page1) : Sheet on which answers are stated regarding information on your firm as the respondent, social requirements, items required by customers, and unique standards defined in the Canon Green Procurement Standards

(2) Packaging(Page2): Sheet on which answers are stated regarding chemical substances established within IEC62474



5. Packaging Survey Sheet

How to answer Packaging material survey form

1. For survey sheets for packaging requested by the Canon Group, please provide your firm's answers after enabling the macro on the Excel file.

2. The default display language for items on the survey sheets is English. Using "select language" in Cell C9 on the sheet named Packaging(Page1), please select the language that you want to display the items in (Japanese/English/Chinese).

3. Please enter your firm's answers on the sheet named Packaging(Page1) while using the Sample (Page 1) sheet as a reference.

4. Please enter your firm's answers on the sheet named Packaging(Page2) while using the Sample (Page 2) sheet as a reference.

5. Once you have finished providing your firm's answers for both the Packaging(Page1) and Packaging(Page2) sheets, please press the "Finish & Save" button in Cell F1 on Packaging(Page1) to save your firm's answers.



6. Explanation about the Canon additional survey form

About Canon's Additional Survey form

The survey items for Canon's Additional Surveys differ according to the survey category and classification of the parts and materials that constitute the survey targets. Survey items include the following:

①Items requiring survey upon acquisition of environmental labels

②Survey items according to customer requirements

(3)Survey items pertaining to packaging subject to a chemSHERPA survey that are not among chemSHERPA survey items

Canon will send your firm the survey sheets required for the parts and materials constituting the survey targets.

[Display image of Canon's Additional Survey form]

Canon green	procurement survey -	additional items	-			Entry procedure (E	le sure to read t	he followin	g befor	re filling in the	sheet.)		
<basic information<="" td=""><td>ation about Company></td><td></td><td></td><td></td><td></td><td>This survey sheet has an</td><td>automatic data proces</td><td>sing function. N</td><td>With the f</td><td>following survey item</td><td>s, be sure</td><td>to make entries sequent</td><td>tially from the lef</td><td>tmost item. To</td></basic>	ation about Company>					This survey sheet has an	automatic data proces	sing function. N	With the f	following survey item	s, be sure	to make entries sequent	tially from the lef	tmost item. To
					_	A black cell means that a	reply may become ne	cessary, depen	ding on re	eplies given in cells t	o the left.	When a reply becomes	necessary deper	ding on replies
Reference	e number		Formet ver.	5.00		When you fill in the sheet :	sequentially from the	left, the automa	atic proce	ssing function sets r	eplies auto	omatically in cells for sim	ilar survey items	, based on prec
Date of Data Entry	(yyyy/mm/dd)				_	When the automatic proce	ssing function is set t	or a cell, makin	ig change	is or deletions in the	cell cause	is re-processing, which s	ometimes invalid	ates the cell. B
	-													
Survey	/ Type													
Survey C	Detegory													
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						Respondent's date of date entry								
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6. Explanation about the Canon additional survey form



The area framed in red color indicates requester information from Canon Group.

The area framed in blue color indicates your information that will be filled in

The area framed by a dotted line in red color shows Product/part/material information already filled in.

In the area framed by a dotted line in blue color, you are requested to fill in your answers for every applicable part and material to survey after you check the items to survey found in the area framed by a dotted line in red color.

Canon



7. Other



7-1. When non-compliant and compliant items are produced in parallel

Enter data on all the chemical substances used in a part/material, when the same part/material is available in types containing different chemical substances. Even when a part/material delivered to Canon does not contain any Canon prohibited substance, indicate "Present" if another type of part/material containing prohibited substances is produced in parallel. In this case, clearly indicate parallel production or other condition in the Additional Notes or Remarks column on the survey form.

Example: Both leaded solder and lead-free solder are used in parallel to solder lead wires of an electric part.

7-2. Updating Submitted Data

If after sending your reply to the Canon Group changes or revisions occur to submitted data due to specification changes or entry mistakes, please notify the requesting department of the Canon Group promptly.

If response data is judged to require corrections due to a design change by the Canon Group or process change application from your company, the survey may be conducted again. Your cooperation will be appreciated.

7-3. File Name When Saving Canon's Additional Survey Form

When sending the form, please use the same file name format as that of the file that was sent to you upon receiving the survey request from the Canon Group.

If it is necessary for you to change the file name due to the manner in which you manage data, etc., please make a notation of the management information, etc. before or after the file name sent by the Canon Group.

These are all the required items to be filled out on the survey forms used in the Canon Group's green procurement survey. If you have any concerns or questions, please contact the requesting Canon Group department or the department listed on the last page of this manual. The final section provides examples illustrating the concepts underlying Canon Group items. Please use these while completing your answers.

Thank you for your cooperation.



Judging substance inclusion



percentage content in material D fixed

Content (percentage) in material D fixed

Chemical substances used in all manufacturing processes throughout the supply chain may be present in product, regardless of process history. When chemical substances (raw material A, raw material B, catalyst C, colorant E, flame retardant F, and ink H) used in the manufacturing processes are clearly identified as

- Intentional use (raw material D, colorant E, flame retardant F, ink H), or
- Impurities (raw material A, raw material B, catalyst C)

and found to be subject to a survey, whether or not chemical substances are contained in product is determined by their threshold values. P. 24





Example 2: from refining of metal material to product



Chemical substances used in all manufacturing processes throughout the supply chain may be present in product, regardless of process history. When chemical substances (ore A, recycled material B, metal material C, grease F, plating solution H, metal I, cleaner K) used in the manufacturing processes are clearly identified as

- Intentional use (metal material C and metal I), or
- Impurities (metal D, metal E, grease F, cleaner G, plating solution H, and cleaner K)

and found to be subject to a survey, whether or not chemical substances are contained in product is determined by their threshold values. P. 25



Example of calculating the ppm content









"content of concerned substance" / "mass of homogeneous material" = (0.06 + 0.009) mg / (0.3 + 0.1)g = 0.069 mg / (0.4×10^{-3}) kg = 172.5 mg /kg = 172.5 x 10⁻⁶ = 172.5 cpm Incorrect calculation !

Content and mass of homogeneous material of different elements cannot be added up. Calculation must be done for each element.



The maximum percentage of Pb content in the electrolytic capacitor is 200 ppm. Breakdowns are 200 ppm in the sleeve and 90 ppm in the lead terminal.



Example 4: Hexavalent chromium is contained in the plating layer of steel plate

Chromate treatment layer

Fe layer (steel plate base material)

Unit material mass: (A+B+C) kg /m²

(Content mass of concerned chemical substance)

Content per unit area of the concerned chemical substance is the mass per unit area of chrome metal in the hexavalent chromium compound that has entered into Ni layer gaps during chromate treatment: $D \text{ mg}/\text{m}^2$

(Mass of homogeneous material of element containing the concerned chemical substance)

1. Mass per unit area of Fe layer, Ni layer, and chromate treatment layer: (A+B+C) kg $/m^2$

2. Mass per unit area of Ni layer and chromate treatment layer: (B+C) kg $/m^2$

3. Mass per unit area of chromate treatment layer: C kg $/m^2$

Which case applies ?

Interpretations 1 to 3 are possible.

- Case 1.: Since Fe and Ni layers can be mechanically (e.g., grinding) disjointed, they are not considered as a homogeneous material containing the concerned chemical substance.
- Case 3.: Chromate treatment layer is thought as a purely homogenous material, but it is difficult to mechanically disjoin this layer from the Ni layer. Accordingly, it is not considered as a homogeneous material as defined for the green procurement survey.
- Case 2.: Although Ni and chromate treatment layers dissolve uniformly, chromate can be considered as an additive contained in the Ni layer in this case. Accordingly, Ni and chromate treatment layers are an element of homogeneous material containing hexavalent chromium.

Accordingly, in this case, the percentage content can be obtained by D mg / (B+C) kg.



Example of content calculations when the amount contained varies in a manufacturing lot

Example 1: When the amount of application/addition vary greatly in the manufacturing process

1-1: Calculating a content in solder applied to PCB (example: metal X is contained)

Below are examples of calculating contents when the amount of solder varies greatly. Suppliers/manufacturers may use another calculation method based on scientific grounds.

The following expression can be used.

- Content of metal x Solder mass =
- Percentage of metal X content in solder









The following expression may be used:

Content of metal X

= Solder mass

Below are examples of calculating contents when the amount of solder varies greatly. Suppliers/manufacturers may use another calculation method based on scientific grounds.

x Percentage of metal X content in solder

Reflow soldering	Flow soldering				
As for the percentage of metal X content, use solder composition analysis data, survey data, or publicized composition table.	In the flow soldering process, solder is replenished into the flow solder bath. This causes fluctuations in the concentration of metal X in the bath. Use the highest concentration data of metal X in the solder bath. That is, use the maximum value as the percentage of metal X content.				
1. When the same type of solder is used: Solder made by company A: percentage of X content 800 ppm When solder composition varies greatly, use its highest value.	Thus, the concept of the percentage content obtained here differs from that obtained in the reflow soldering process (where the percentage content is determined by the type of solder). However, when a control system is set up in accordance with the soldering criteria recommended by the Canon group, the solder bath is analyzed periodically, and a control value i				
2. When several types of solder are used:	set, the control value may be used.				
Solder made by company A: percentage of X content 800 ppm Solder made by company B: percentage of X content 400 ppm Solder made by company C: percentage of X content 1000 ppm	 Note: difference between metal contained in PCB components and in the flow solder bath Flow solder bath contains Pb-free solder, but PCB component leads contain lead Flow solder bath contains non-bismuth solder, but PCB component leads uses bismuth solder 				
In this case, use the highest value of 1000 ppm should be used as the percentage content.	In such cases, metal not originally included in solder may be present in the flow solder bath, so care must be taken				

The content of metal X can be calculated from

Solder mass

ass and Percentage

Percentage of metal X content in solder described earlier.

Lead contained in solder

Lead is known to be mixed in lead-free solder as an impurity. The Canon group requests suppliers/manufacturers to report the percentage of lead content exceeding 1000 ppm. However, when suppliers/manufacturers have data of 1000 ppm or less for process control or other purposes, the Canon group requests them to provide the data as much as possible.







Example 2: Calculating content when component ratios vary greatly with standard materials

2-1: Pb contained in free-cutting steel part made of JIS standard material (example: SUM24L)



percentage content: Content is M x 3,500 = 3,500 M (mg).



2-2: Pb and Cd contents in free-cutting brass bar made of JIS standard material (example: C3604)

Below is a example of calculation. Suppliers/manufacturers may use other calculation methods based on other scientific grounds.

Chemical composition %

Fe

Mass: M (kg	g)
Machining	
	Calcı

Calculate the mass	of application part
containing C3604	

Normally, the mass of C3604 can be obtained by measuring the mass of the part itself. When mass varies greatly with part machining, measure multiple samples and use the maximum measurement value.

Use this mass to calculate the content.

	C3604	57.0 to 61.0	1.8 to 3.7	0.50 or less	Fe+Sn 1.2 or less	remainder
ulation	of percentage	content and content	t (by means of st	andards, analysis,	and examination)	

Chemical composition of C3604 (Copper and copper alloy rods and bars)

The percentage of Pb content is determined by a composition ratio in the standard range, but the content may be calculated as follows:

Pb

• When a range of control values is specified for the delivery management of the material, use its maximum value as the percentage content.

Example: When Pb composition is controlled in the range 3.0 to 3.5%, use 3.5% (35,000 ppm) as the percentage content. Content is: M x 35,000 =35,000 M (mg)

When the control value is below the highest value specified for the standard composition or when no value is specified, use the highest value of the standard composition as the percentage content.
 Example: According to the chemical composition table above, use 3.7% (37,000 ppm) as the percentage content. Content is: M x 37,000 =37,000 M (mg).



General-purpose Zn refined by distillation is generally known to contain about 0.2% of Cd. The percentage of Cd content may be calculated as follows:

• When a control value is specified for the delivery management of the material, use the value as the percentage content.

Example: The percentage content is controlled at 70 ppm by making periodic analysis. In this case, the percentage of Cd content is 70 ppm. Content is: $M \ge 70 = 70 M$ (mg).

• Multiply the maximum percentage of Cd composition by the highest percentage of Cd content specified by the standard for the type of Zn in use, and use the obtained value as the maximum value. Example: The maximum percentage of Zn composition in the remainder is 40%, and only a regular type of zinc base metal specified by JIS H 2107 is used. The highest value of Cd composition specified by the

standard is 0.01%. At this time, the percentage of Cd content is calculated as follows:

40% x 0.01 = 0.4 x 0.0001 = 0.00004 = 0.004% = 40 ppm

Content is $M \ge 40 = 40 M (mg)$.

Symbol

Cu

Zn

Sn



Example 3: Calculating contents when the same part or material is made at different manufacturing sites

When a part/material with the same type No. and grade is manufactured at multiple plants, different parts and materials may be used to make the part/material. In this case, the types and contents of chemical substances contained may not be the same.



subject to the survey. The substances concerned in the above example are:

- Brominated flame retardant
- Chlorinated paraffin
- Antimony
- Cd

Maximum content of all the manufacturing sites

- Brominated flame retardant: 150 mg
- Chlorinated paraffin: 200 mg
- Antimony: 80mg
- Cd : 20 mg

9. Revision History



December 2005: Created Version 1.00

This manual puts together the concepts and entry methods for the Canon Group's new green procurement survey, which is based on JGPSSI Version 3, to be issued in January 2006.

April 2008: Issued version 2.00

This version revises the contents in line with the releases of the Green Procurement Standards Ver. 5.0 and JGPSSI Ver. 3.34.

- May 2008: Issued version 2.10 This version corrects errors and revises
- October 2008: Issued version 2.11

This version revises only a cover with the releases of the Green Procurement Standards Ver. 5.1.

- September 2009: Issued version 3.00
- This version revises the contents in line with the releases of the Green Procurement Standards Ver. 6.0 and JGPSSI Ver. 4.00.
- December 2009: Issued version 3.01
 Added supplementary explanation to "Scope of Report Level (Threshold Level) on Surveyed Substance Categories in JGP File".
- October 2010: Issued revised edition Version 4.00 This version revises the contents in line with the release of JGPSSI Ver.4.10 and the revision of the Green Procurement Standards Ver. 7.00.
- December 2010: Issued revised edition Version 4.01 This version revises the contents in line with the release of JGPSSI Ver.4.11
- June 2011: Issued revised edition Version 4.02 This version revises only a cover with the releases of the Green Procurement Standards Ver. 8.0.
- June 2012 :Issue of revised version 5.00 In conjunction with the revision of the Packaging Survey Sheet and the additional survey sheet, explanations and reply procedures were added.
- August 2012 :Issue of revised version 5.10 This version revises the contents in line with the release of JGPSSI Ver.4.20
- September 2013 : Issue of revised version 6.00 Changes to contents associated with the compatibility of IEC62474 and publication of Canon Green Procurement Standards ver.9.0 were made.
- June 2014: Issued revised edition Version 6.01 This version revises only a cover with the releases of the Green Procurement Standards Ver. 10.0
- June 2015: Issued revised edition Version 7.00 This version revises the contents in line with the release of the Green Procurement Standards Ver. 11.0
- June 2019: Issued revised edition Version 8.00 Revised to comply with chemSHERPA.
- Sep 2019: Issued revised edition Version 8.10 Revised to comply with chemSHERPAVer2.0.
- Dec 2020: Issued revised edition Version 8.20 Revised to comply with chemSHERPAVer2.02
- Sep 2021: Issued revised edition Version 8.30 The composition information in the chemSHERPA-AI survey has been changed to "required".

[Guidelines management section and contact] Environment Promotion Div. Global Environment Center, Canon Inc.

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