

Rules on the Use of Information on Chemicals in Products Under the chemSHERPA

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1. Preface

The chemSHERPA, a new scheme for management of chemicals in products, aims to promote secure and efficient information transfer by providing a standardized method that facilitates sharing chemical information over a supply chain, which ensures safety in the production and use of products and protection of human health and the environment. For achieving this goal, this scheme establishes data-transfer procedures, including boundary of declarable substances, reporting contents and data format. Creation, modification and reference of electronic data in a specific data format can be operated with chemSHERPA's data entry support tool, as well as by using packaged software (developed by software vendors) and operator's own in-house information systems (hereinafter collectively referred to as "Software").

2. Scope

- ☐ The Rules contained in this document provide the principle of the information transfer scheme "chemSHERPA" for chemicals in products, and apply to all organizations that provide or receive such information under this scheme.

[Note] The term "organizations" in this provision also includes trading companies, fabless operators, contracted manufacturers, etc.

- ☐ Organizations who use the chemSHERPA information transfer scheme shall ensure correct understanding of and conformity with these Rules, and shall not make any demands departing from the provisions of these Rules.
- ☐ The basic principles provided herein may be included in chemSHERPA's specifications and manuals (hereinafter referred to as "Manuals") prepared as supplementary materials for detailed explanation, as necessary, and in such case, relevance with these Rules will be explained. Users who wish to use the declarable substance list or data entry support tools shall ensure correct understanding of and conformity with the respective Manuals.

[Note] Manuals are designed to help harmonious implementation of information transfer in a supply chain, which provide guidance on what data is to be entered or restricted, processes for data provision or data request, how to name a data file, etc.

3. Terms and definitions

- ☐ Terms and definitions under the Rules contained in this document shall be as provided in the following table.

Term	Definition
chemical substances in product	Chemical substance recognized as being contained in products. (JIS Z 7201)
chemical substance	An element or its compound that is formed naturally or can be obtained in any manufacturing process. (JIS Z 7201)

Term	Definition
mixture	Mixture can be obtained by mixing two or more chemical substances. (JIS Z 7201) [Note] Examples of mixtures include paint/coating agent, ink, alloy ingot, solder, resin pellet, etc.
chemical product	Chemical substance and/or mixture (JIS Z 7201)
material	Category for the component materials of articles that can be leveraged as information to contribute to environmental design and particularly recyclable design (recyclability (ISO22628), calculation of recycling rate, etc.).
article	Refers to an item with a specific shape, appearance or design that is given during production which substantially determines the functions of the item in final use rather than its chemical composition. (JIS Z 7201) [Note] Examples of articles include paints, metal plates, gear wheels, integrated circuits, electrical products, transport machineries, etc.
original part	Initial parts manufactured from chemical substances/mixtures through manufacturing processes that fix the substance content, such as forming, drying, heating and coating. (Note) This is the smallest unit of a part that cannot perform its intended function if further divided. (Note) Examples of original parts include plastic cases, a key of a computer keyboard, an electrolytic capacitor, a fuse, etc.
part	Article to be combined to produce an end product. (JIS Z 7201)
end product	Final form of article obtained by combining and processing chemical products and/or parts. (JIS Z 7201)
product	Chemical products, parts or end products that an organization delivers to its customers as a result of operation. (JIS Z 7201)
composition	Element that constitutes a chemical product. (JIS Z 7253) [Note] "Element" indicates a chemical substance that constitutes a chemical product, or, if difficult to identify a single substance, is identifiable by its origin or formula.
intentional addition	Refers to a state where a chemical substance is added to a product with a purpose, such as to give a certain quality.

Term	Definition
impurity	<p>A chemical substance contained in a product with no specific function and is identifiable with its CAS number (or other ID) that is different from those of other substances in a product. This term also refers to residual substances not removed from the product through general purification processes.</p> <p>Under the chemSHERPA, however, the following cases are not deemed as content for operational reasons even if such impurities are regulated substances: where prediction of content is not technically feasible; information is not available due to trace amount of such substance, with the exception that threshold or permissible values are given in relevant management standards (to be described later).</p> <p>Any content of impurity by intentional addition, or any intentional content, is not deemed as impurity regardless of concentration.</p>
organization	Group of people and facilities that bear responsibility and authority as well as mutual relations.
content of chemical substance	A state that declarable substances exist in a product as a composition of chemical products or articles, which is clarified based on information from suppliers or the organization's knowledge.
information on chemicals in product	Information on chemical substances subject to management under an organization's criteria based on relevant laws/regulations and industry criteria.
relevant standard for chemical management	Law/regulation and/or industry criterion as the basis to define declarable substances.
declarable substance	Chemical substances subject to data provision in accordance with relevant standards.
aggregated list of declarable substances	A list that aggregates substances and substance groups designated as declarable substances under laws/regulations and/or industry criteria. It provides the whereabouts of the original text of such relevant standards as well as general information. Abbreviated as "aggregated list".
search list of declarable substances	A list that details the aggregated list with names and CAS Nos. of individual substances, including substance group names within a range of practical use. Abbreviated as "search list".
declarable substance list	Collective term for "aggregated list of declarable substances" and "search list of declarable substances".
composition information	Information on chemicals in products, consisting of type and content rate of declarable substances.
compliance assessment information	Information on chemicals in products, which can be used as a basis to assess conformity with laws/regulations and/or industry criteria for specific product types.
industry criteria	Standards with regard to management of chemicals in products in the industry, as developed and publicized by each industry association. (JIS Z 7201: 2012)

Term	Definition
Area	A basis to determine declarable substances, reportable application and reporting threshold that are necessary to prepare compliance assessment information. [Note] For example, “declarable substance groups and declarable substances” of IEC62474 is the Area adopted for electric and electronic equipment.
upstream/ midstream/ downstream	These terms indicate the configuration of a supply chain, likening it to the stream of a river. Namely, organizations (and their positions in a supply chain) that produce chemical products and mixtures are referred to as “upstream,” those who produce parts as “midstream” and those who produce end products as “downstream”.
voluntary data provision	A way of information transfer for chemicals in products, such that a product supplier provides or publicizes information on a voluntary basis.
data provision upon request	A way of information transfer for chemicals in products, such that a product supplier prepares information in line with its customer’s request after examining the requested details.
integration	Refers to the practice of creating the composition information of a combined article that consists of the composition information of several original parts.

4. Establishing a management system for chemicals in products

- ☐ Information transfer for chemicals in products shall be conducted in line with the organizations’ management system which has been adopted to control such substances.

[Note] For establishing a management system, organizations may refer to documents such as the Japan Industrial Standard (JIS Z 7201 (“Management of Chemical Substances in Products – Principles and Guidelines”) and the “Guideline for chemical substances in products ”

- ☐ For management of chemicals in products, each organization shall know about all chemical substances that may be contained, formed or generated in its products at any stage of the manufacturing process. Special attention should be given to processes such as chemical reactions and conversions from chemical products to articles.

5. Information on chemicals in products

- ☐ For chemical products, composition information shall be provided as information on chemicals in products. Organizations shall prepare data on chemical products (chemSHERPA-CI) in line with a specific data format by using the data entry support tool for chemicals or other compatible software.
- ☐ For articles, composition information and/or compliance assessment information shall be provided as information on chemicals in products. Organizations shall prepare data on articles (chemSHERPA-AI) in line with a specific data format by using the data entry support tool for articles or other compatible software.

[Note 1] Regardless of product type over a supply chain, composition information is valuable in management of chemicals in products as well as chemical management in a broad sense, especially for upstream operators in a supply chain for articles.

[Note 2] Compliance assessment information is valuable when operators need to determine compliance of products immediately or when substance content information cannot be delivered in a normal way due to file size, etc. This is particularly important for downstream operators in a supply chain for articles.

6. Basics of information transfer for chemicals in products

6.1. Information transfer for chemicals in products in a supply chain

- ☐ For information transfer for chemical substances in chemicals or articles, the receiving party may request information only to the extent it needs the information for chemical management or subsequent information transfer.
- ☐ The receiving party should not request an analysis certificate or evidence to suppliers to prepare information on chemicals in products.
- ☐ The requester should not require the respondent to enter "unique information specified by the requester" as an essential requirement in the information item entered by the respondent.

(Note) Information items entered by respondents are product information, revision history, comments, reference numbers, Material code of public standard, etc.

- ☐ Full declaration on non-declarable substances by optional reporting shall be conducted based on requests by the respondent (suppliers) and on the basis of B2B agreement.
- ☐ The prescribed data format(* 1) shall be used without modification.
(* 1) chemSHERPA-CI is the file format with the extension .shci and chemSHERPA-AI is the file format with the extension .shai, which is output from each data entry support tool, or from compatible software.
- ☐ Information shall be provided in English.

[Note] Description in local languages can be given in some items as supplementary information. Some software such as the data entry support tool may form notation in English, often without the users noticing it.

6.2. Relevant standards for chemical management

- ☐ Under the chemSHERPA, chemical management standards are selected from laws and regulations and/or industry criteria in regard to management of chemicals in products (hereinafter referred to as "Regulations"). In such case, prescriptions of Regulations (such as application subject to Regulations and threshold values) shall be adopted without modification.
- ☐ Relevant standards shall be shared over a supply chain, including Regulations that are not applicable to some forms or usages of products.

6.3. Criteria for transferring composition information

- ☐ Criteria for transferring composition information shall be as shown in Table 1. These

criteria are applicable to weight concentration on a per-product basis for chemicals and on a per-material basis for articles.

- ☐ For facilitating transfer of composition information, the chemSHERPA introduces the threshold of 0.1wt% as its own voluntary criteria.

Table 1 Criteria for providing composition information

Threshold under Regulations		Concentration of declarable substance	Whether to transfer composition information
Clarified as reportable application, or application unknown	Prescribed threshold is greater than 0.1wt%	Equal to or greater than allowable concentration under Regulations	Requires providing composition information, including declarable substances.
		Equal to or greater than 0.1wt% of chemSHERPA’s voluntary criteria and below allowable concentration under Regulations	Provide composition information including declarable substances, in line with voluntary criteria under chemSHERPA.
		Below 0.1wt% of chemSHERPA’s voluntary criteria	Not required to provide composition information on declarable substances. Optional reporting.
	Prescribed threshold is equal to or below 0.1wt%	Equal to or greater than allowable concentration under Regulations	Requires providing composition information of declarable substances in products.
		Below allowable concentration under Regulations	Not required to provide composition information of declarable substances in products. Optional reporting.
Clarified as other than reportable application		Equal to or greater than 0.1wt% of chemSHERPA’s voluntary criteria	Provide composition information including declarable substances, in line with voluntary criteria under chemSHERPA.
		Below 0.1wt% of chemSHERPA’s voluntary criteria	Not required to provide composition information of declarable substances in products. Optional reporting.

[Note] "Threshold under Regulations" in this table indicates allowable concentration of declarable substances under a relevant standard selected from Regulations.

If there is more than one value, the most stringent shall be used in principle.

- Product suppliers shall determine whether to transfer information depending on applicability to reportable application. If possible, the determination result shall be shared with the receiving organization through B2B communication. If the supplier is unable to identify how products would be used by its customer, it falls under “application unknown”.

[Note 1] Examples of “clarified as other than reportable application” may include cases where: product suppliers have been informed by the receiving party that the usage of supplied products are not relevant to reportable application; the usage of products is restricted by suppliers within non-reportable application.

[Note 2] Regarding Japan’s Chemical Substances Control Law, operators may consider the threshold value at zero (“0”) in principle. When content of a declarable substance under this law is not intentional and the product is applied to best available technology (BAT) or the content is below the voluntary management threshold authorized by Ministry of Economy, Trade and Industry (METI), operators should conduct information transfer with explanations on such conditions as Remarks. Where the threshold value is “0,” the term “equal to or greater than the threshold” means to include least content and “below threshold” means no content. Any intentional addition is subject to control as Class I Specified Chemical Substances and virtually banned from production.

6.4. Information transfer in the “voluntary data provision” approach

- In case of information transfer in the “voluntary data provision” approach, the product supplier provides or publicizes information on chemicals in products on a voluntary basis.

[Note] This approach is expected to create a flow of information on chemicals in products from upstream operators in a supply chain. Therefore, organizations in up- and mid-stream are encouraged to use this approach.

6.5. Information transfer in the “data provision upon request” approach

- In case of information transfer in the “data provision upon request” approach, the product supplier provides information corresponding to the request by the receiving party.
- For operators who receive a request in a so-called “many in a document” format (reporting on multiple products in a single file), it is preferable to make a response collectively, although response in divided parts are also acceptable. When responding in divided parts, operators shall determine an appropriate procedure in line with B2B agreement based on the requests by the respondents.
- The product supplier and its customer are encouraged to make sufficient communications and help each other to reduce workload in data preparation. For example, the requesting party may narrow down its request items to the minimum for subsequent information transfer, or may show flexibility to accept responses in a voluntary-type format to its “data provision upon request” approach.

[Note] “Promptly” is equivalent to “without delay” in legal terms and is assumed as a period of less than one month to conduct information transfer.

6.6. Responsible information transfer

- “Responsible information transfer” refers to, pursuant to the Rules contained in this document, business practices that ensure management of chemicals in products, where an organization makes every effort to prepare such information by using information from suppliers or based on its own knowledge, and then provides such information to downstream operators with authorization under the organization’s procedures.

[Note] If a product supplier prepares information on chemicals in its products in accordance with chemSHERPA and provides it to other operators in the supply chain with its authorization by chemical manager of the company, it is deemed as “responsible information transfer”.

- Product suppliers shall prepare compliance assessment information for articles based on an “Area” and provide it to customers as “responsible information transfer”. Accuracy of compliance assessment information shall correspond to the values of allowable content as stipulated in Regulations that are the basis of the “Area”.

[Note 1] The chemSHERPA’s data entry support tool provides concrete procedures for “authorization”. During operation of the tool, data is not officially saved unless a chemical manager (as authorizer) issues authorization after entering the information and examining the data.

[Note 2] The “authorizer” is responsible for management of chemicals in products in an organization, and can be selected from the top management or other relevant divisions, such as division manager or section chief, depending on the organizational structure.

- “Responsible information transfer” does not intend any forceful implementation, such that the requesting party would seek unavailable information by all means or force the use of high-precision apparatuses for detailed analyses.
- For secure and efficient transfer of information on chemicals in products, it is preferable for organizations to utilize information provided by suppliers with full respect of the results of “responsible information transfer”.
- “Responsible information transfer” does not give “assurance” to the information on chemicals in products provided under this scheme. Any matters on “assurance” for such information should be determined on a B2B basis.
- Information obtained from upstream organizations shall be transferred to downstream organizations without any omission or deletion of the information, in line with the reporting criteria for composition information.
- It should be noted that information on purchased products is not necessarily available from suppliers. Therefore, organizations shall make a reasonable effort to supplement information by adding its own knowledge and scientific findings, as necessary, in order to prepare own data for subsequent information transfer.
- Trading companies, fabless operators and contract manufacturers shall examine the information from suppliers in order to provide it as its own information to downstream

operators, to ensure “responsible information transfer”.

6.7. Update of information

- ☐ In case that there is a revision in declarable substances or an organization makes a change in 4M (Man, Machine, Material, Method) of production, and if such change affects the products for which information transfer has been made in the supply chain, the organization shall deliver revised information to downstream operators promptly if the case falls under addition or revision of chemicals in products.

[Note 1] “Promptly” is equivalent to “without delay” in legal terms and is assumed as a period of less than one month to conduct information transfer.

[Note 2] Coverage of products and timing of revision may vary depending on the product type and business category.

- ☐ If updates of declarable substances fall under addition or revision of information on chemicals in products, the organization shall promptly provide such information to downstream operators.
- ☐ Operators who wish to make an information request for an update of declarable substances in the “data provision upon request” approach should make efforts to reduce the workload of respondents. For example, the requesting party may look into revised Regulations in advance so as to narrow down request items or limit affected suppliers.

6.8. Confidential business information (CBI)

- ☐ Although protection of confidential business information (CBI) should be respected, declarable substances under chemSHERPA are controlled by Regulations based on hazardous properties. Therefore, if a declarable substance is contained in a product at above the threshold stipulated in relevant regulation, information on such substance shall not be subject to CBI protection.

[Note] Even if CBI is on articles affected by Regulations, it is preferable for operators to conduct information transfer, understanding the importance of such information for downstream operators in the supply chain.

6.9. Providing support for data preparation and delivery

- ☐ Through communication between the product supplier and its customer, the supplier may be informed on usage and process of the products after delivery. In such case, it is preferable for the supplier to provide relevant information to the customer, as support to prepare information on chemicals in products. However, this does not apply to cases where the product is used for non-standard application or combined with items obtained from other suppliers.

7. Information transfer for chemical substances in chemical products

7.1. Preparation and management of information on chemical substances in chemical products

- ☐ Initial chemical manufacturers in a supply chain shall prepare information on chemical substances in the chemical products it provides, based on information accumulated on its own. Subsequent chemical manufacturers shall manage the information obtained from the upstream operator, adding or modifying supplement information as necessary, and prepare its own chemical information to provide the information to downstream operators.

7.2. Composition information on chemical products

- ☐ The manufacturer shall transfer the information regarding the content of the controlled chemical substances in the supplied chemical products in accordance with the Criteria for composition information.

8. Information transfer for chemical substances in articles

8.1. Preparation and management of information on chemical substances in articles

- ☐ Manufacturers that produce initial articles from chemical products in a supply chain shall prepare information on chemical substances in articles, based on information on chemical products from suppliers or information accumulated on its own, adding and modifying supplementary information as necessary, and prepare its own article information to provide the information to downstream operators.

[Note 1] Manufacturers that produce initial articles from chemical products in a supply chain may have such information on: chemicals in products; standards on materials, conversion from chemical products to articles, etc.

[Note 2] Manufacturers who add articles in base materials in the flow of supply chain (in plating and coating processes, for example) are required to prepare information on the articles added (plated layer, coated layer, etc.), as initial article manufactures do.

8.2. Composition information for articles

- ☐ In case that an article contains declarable substances, the manufacturer of such article shall determine if information transfer for the article would be needed, based on threshold values of composition information.
- ☐ The structure of an article shall be expressed in a three-tier tree structure (part-material-substance) for original parts, and a four-tier structure (level-part-material-substance) for combined articles.
- ☐ The manufacturer shall transfer the information on all controlled substances in accordance with the Criteria for composition information.

8.3. Integration of composition information for articles

- ☐ Organizations may manufacture an article by combining several articles purchased from different suppliers. In such case, the organization shall integrate composition

information provided along with each article, after examining the data contents.

[Note] Organizations that manufacture combined articles need to pay attention to integration of composition information. For example, if an operator uses adhesive agent, it may require work before integration: first, obtain information on chemical substances contained in the adhesive agent as chemical product, and then, based on the information obtained, prepare composition information for solidified “adhesive layer” as an article.

- Names of “level” items in integration shall be as shown in Table 2. “Information on level” shall be “combined article as constituent/article produced by conversion of chemical product,” which is “omitted information” of parts that constitute an article.

Table 2 Indication of “Level” in integration of composition information for articles

Article	Level	Part
Original part	Not required	Name of part
Combined article	Information on level	Name of part

[Note] The following is an example of how to indicate the name of a level.

controller – CPU unit – CPU board – power source substrate – electrolytic capacitor

Article	Level	Part	Material
electrolytic capacitor (original part)	(not required)	electrode foil	base
	(not required)	separator	base
(power source substrate)	electrolytic capacitor	electrode foil	base
		separator	base
CPU board	power source substrate/ electrolytic capacitor	electrode foil	base
		separator	base
CPU unit	CPU board/ electrolytic capacitor	electrode foil	base
		separator	base
controller	CPU unit/ electrolytic capacitor	electrode foil	base
		separator	base

8.4. Compliance assessment information for articles

- There are regulations and standards for articles to control content of substances for

specific application and product types. Organizations that provide end products and parts need to obtain such information to determine if articles would satisfy relevant regulations. Compliance assessment information provided under the chemSHERPA, along with composition information, helps organizations determine compliance of each article.

- ☐ Organizations that supply articles shall prepare and provide compliance assessment information based on the relevant Area.

8.5. Transferring composition information and compliance assessment information for articles

- ☐ For transferring composition information and /or compliance assessment information, operators need to have B2B discussions and conduct it based on an agreement, taking into consideration purposes of this practice and properties of information as well as possible impacts that may affect upstream and downstream operators.

9. Revision history

Version	Date	Revised content
1.1	June 30, 2016	First edition
1.2	June 14, 2019	<ul style="list-style-type: none"> • 3. Terms and definitions Deleted revision year of (JIS Z 7201) • 4. Establishing a management system for chemicals in products Modify the text of (Note) • 6.6. Responsible information transfer Deleted some sentences about assurance • 7.2. Composition information on chemical products Corrected sentences • 8.2. Composition information for articles Corrected sentences
1.3	September 18, 2019	<ul style="list-style-type: none"> • 6.1. Information transfer for chemicals in products in a supply chain Added text (4th to 7th lines)
1.4	August 5, 2020	<ul style="list-style-type: none"> • 3. Terms and definitions Added definitions of terms concerning original parts and materials • 3. Terms and definitions • 8.3 Integration of composition information for articles Changed descriptions that referred to original parts using the term “original parts”
1.5	August 18, 2021	<ul style="list-style-type: none"> • 6.1. Information transfer for chemicals in products in a supply chain The data format to be provided is described