

# Guidance on Green Procurement Survey by using chemSHERPA

Version	1 <sup>st</sup> edition
Publication	October 1, 2018
Revision	-

**Hamamatsu Photonics K.K.**

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## 1. Purpose

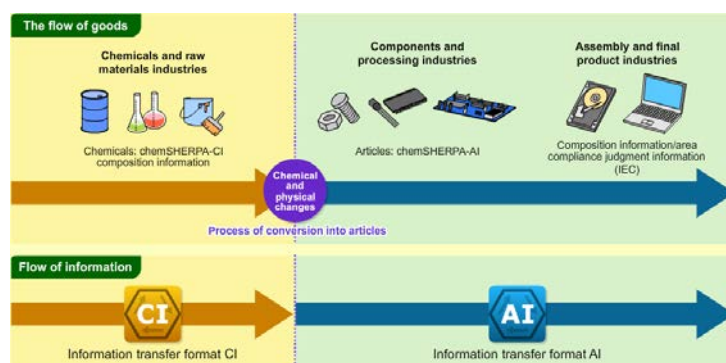
We, Hamamatsu Photonics K.K. (HPK), ask our suppliers to respond to our Green Procurement Survey on the authority of *Green Procurement Management Standard for Chemical Substances For Suppliers*<sup>1</sup> (HPK's standard). This document is about how to respond to our survey.

## 2. Green Procurement Survey by using chemSHERPA

As described in HPK's standard, it is necessary for companies to manage chemical substances in products (CiP). To make sure that our products comply with HPK's standard and chemical regulations like RoHS and REACH, we may require our suppliers to fill out "the survey for Chemical Substances contained in parts or materials delivered to HPK." This survey could be classified into two types. One is a survey based on our original standard, and the other is a survey based on one of the industrial association standards such as "chemSHERPA declarable substances<sup>2</sup>," "JAMP Declarable Substances<sup>3</sup>," and "IEC62474<sup>4</sup>." Each industrial category has its unique answer format. Among these formats, we use "chemSHERPA-AI" as the standard format. This guide mainly focuses on our requirements to fill out the chemSHERPA-AI survey format.

### 3. 1. About chemSHERPA

The chemSHERPA is one of the common schemes for information sharing among supply chain partners. To manage CiP among supply chains, it is crucial to specify the conversion process from materials to articles because it is only after conversion that a chemical reaction could take place<sup>5</sup>. The chemSHERPA emphasizes this conversion process. In its scheme, material manufacturers are recommended to share chemical substances information by using chemSHERPA-CI format, while article manufacturers are expected to share chemical substances information by using chemSHERPA-AI format<sup>6</sup>. Our suppliers are expected to share chemical substances information with us by using CI or AI, depending on the category their products belong<sup>7</sup>.



<sup>1</sup> <https://www.hamamatsu.com/jp/en/our-company/csr/procurement/green-procurement/index.html>

<sup>2</sup> <https://chemsherpa.net/chemSHERPA/english/>

<sup>3</sup> <http://www.jamp-info.com/english>

<sup>4</sup> <http://std.iec.ch/iec62474/iec62474.nsf/MainFrameset>

<sup>5</sup> The significant difference between "material" and "article" could be founded in the functionality because, as REACH defines, "article" is regarded as an object which during production process is given a special surface or design which determines its function to greater degree than does its material(chemical) composition.

<sup>6</sup> You can download both CI format and AI format at the following link address.

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

And the detailed instructions of these tools are available at the following link address.

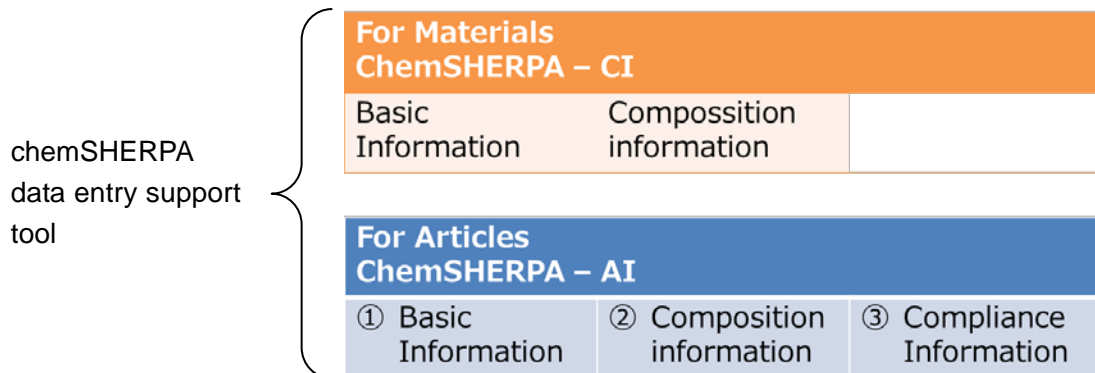
[http://www.meti.go.jp/policy/chemical\\_management/english/learningtool.html](http://www.meti.go.jp/policy/chemical_management/english/learningtool.html)

<sup>7</sup> For example, solders, glues, cleaners, inks, and etc. are to be covered by the category of material, and chemicals information on these should be shared by using chemSHERPA-CI.

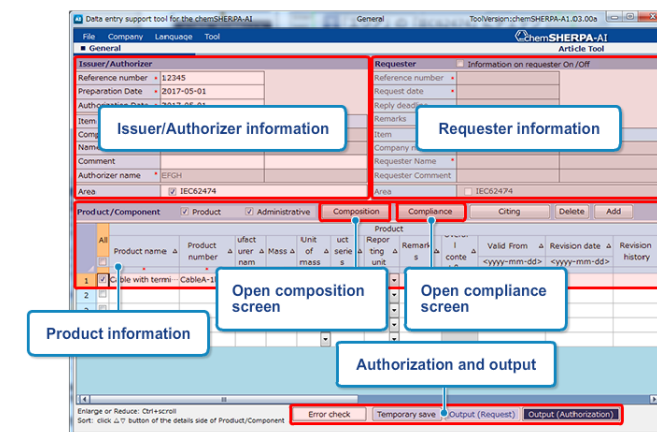
<sup>8</sup> METI, chemSHERPA learning tool chapter 1, p.9.

### 3. 2. chemSHERPA-AI

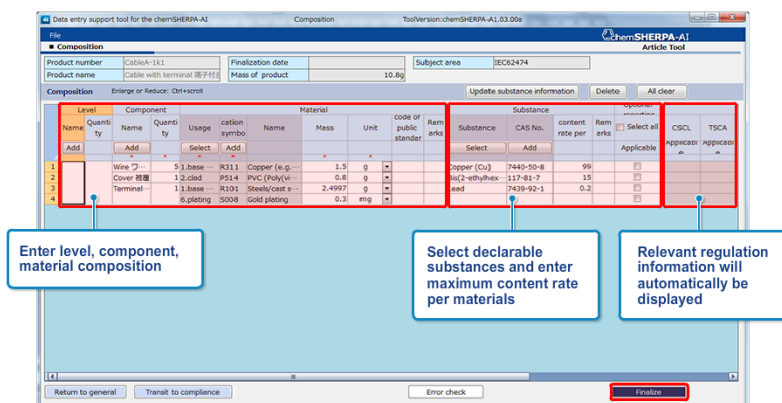
The chemSHERPA-AI format consists of three information elements: Basic information, Composition information, and Compliance information. A respondent needs to give us all three pieces of information. Although both Composition information and Compliance information have the same aim of sharing information on CiP across supply chains, criteria for judging chemical substances to be reported are different. Under the Compliance information sheet, every piece of CiP information is to be disclosed with CAS Number in accordance with every composed material. But, under the Compliance information sheet, a respondent are only required to disclose CiP information to the extent of IEC62474<sup>9</sup>.



#### ① Basic information<sup>10</sup>



#### ② Composition information<sup>11</sup>

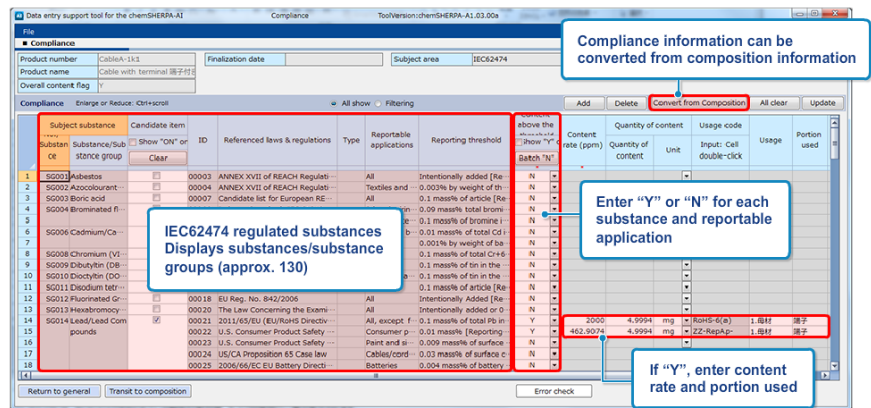


<sup>9</sup> IEC62474 provides Material Declaration for Products of and for the Electrotechnical Industry, publishing the list of chemical substances to be reported.

<sup>10</sup> METI, chemSHERPA learning tool capter 2, p.1.

<sup>11</sup> METI, chemSHERPA learning tool capter 2, p.2.

③ Compliance information<sup>12</sup>



### 3. 3. Alternative Formats

Although it is preferable for our suppliers to respond to Green Procurement Survey by using chemSHERPA format, we would accept other chemicals information formats such as FMD<sup>13</sup> or IPC1752<sup>14</sup> because these formats meet our requirements so long as contents of CiP are disclosed.

### 3. 4. Additional Information

- ① Please keep in mind suppliers may be asked to respond to another CiP survey even after they have already responded to our requests, because the renewal of RoHS Exemptions or future environmental regulations may require us to reconfirm CiP.
- ② As for Criteria for EU RoHS Restricted Substances, please refer to the next page.

<sup>12</sup> METI, chemSHERPA learning tool chapter 2, p.3.  
<sup>13</sup> FMD stands for Full Materials Declaration.  
<https://www.bomcheck.net/suppliers/full-materials-declaration-tool>.  
<sup>14</sup> IPC1752 is Materials Declaration Management Standard.  
<http://www.ipc.org/ContentPage.aspx?pageid=Materials-Declaration>.

**Criteria for EU RoHS Restricted Substances**

1) Maximum Concentration Value

Maximum Concentration Value shall be determined by weight in homogeneous materials. ‘Homogeneous material’ means one material of uniform composition throughout or a material, consisting of a combination of materials, that cannot be disjointed or separated into different materials by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes. Materials like plastics, ceramics, glass, metals, alloys, paper, board, resins, or coatings are considered as homogeneous materials.

RoHS Restricted Substances	Threshold level
Lead Mercury Hexavalent chromium Polybrominated biphenyls(PBB) Polybrominated diphenyl ethers(PBDE) Bis(2-ethylhexyl) phthalate (DEHP) Butyl benzyl phthalate (BBP) Dibutyl phthalate (DBP) Diisobutyl phthalate (DIBP)	1000 ppm (0.1%)
Cadmium	100 ppm (0.01%)
Notes; <ul style="list-style-type: none"> <li>• The restriction of DEHP, BBP, DBP and DIBP shall apply to all EEE categories except for medical devices and monitoring and control instruments from 22 July 2019. As for EEE categories, please check Annex I of RoHS.</li> <li>• The restriction of DEHP, BBP, DBP and DIBP shall apply to medical devices, including in vitro medical devices, and monitoring and control instruments, including industrial monitoring and control instruments, from 22 July 2021.</li> <li>• Chemical compound, Alloy and metals can be considered as homogeneous materials.</li> <li>• Each single layer can be considered as homogeneous material in terms of single or multiple layer of coating compound, printing and plating.</li> </ul>	

2) Examples of conformity and non-conformity

(E.g. 1) In case that containing 0.03mg Pb in 10mg homogeneous material.

$$\begin{aligned} \text{Content ratio [ppm]} &= \frac{\text{Substance amount in homogeneous material [mg]}}{\text{Mass of homogeneous material [mg]}} \times 1,000,000 \\ &= \frac{0.03 \text{ [mg]}}{10 \text{ [mg]}} \times 1,000,000 = 3,000 \text{ [ppm]} \end{aligned}$$

Non-conformity due to 3,000 [ppm] >= 1,000 [ppm]

(E.g. 2) In the case that containing 0.002% Cd in the homogeneous material.

$$\begin{aligned} \text{Content ratio [ppm]} &= 0.002 \text{ [%]} \times 10,000 = 20 \text{ [ppm]} \\ \text{Conformity due to } 20 \text{ [ppm]} &= < 100 \text{ [ppm]} \end{aligned}$$

3) EU RoHS Directive Exemptions

EU RoHS Directive Exemptions are listed in Annex III and IV of RoHS Directive (2011/65/EU). These listed items would be renewed, revised, or abolished by some triggers including an application from an interested party. So, it is necessary to check the latest valid items on the RoHS official website : [http://ec.europa.eu/environment/waste/rohs\\_eee/adaptation\\_en.htm](http://ec.europa.eu/environment/waste/rohs_eee/adaptation_en.htm) .

#### **4. Handling of Information on CiP**

- 1) Although we would only use information provided by our suppliers to make sure our products comply with the environmental regulations, we may disclose it as a part of our CiP information to our customers. Provided information would be treated with due diligence. Please notify us if contains any confidential information.
- 2) Please note that we may correct mistakes without prior notice if the correct information is readily available as common knowledge on the part of the supplier.

#### **5. Request for providing information in a timely manner**

We expect our suppliers to respond to our Green Procurement Survey without delay. At the same time, if they have found their answers lack important CiP information, they would be expected to update their answers in a timely manner even after they have already reported.

#### **6. Contact Information**

Secretariat of Environmental Committee, Hamamatsu Photonics K.K.  
5000, Hiraguchi, Hamakita-ku, Hamamatsu-city, Shizuoka 434-8601, Japan  
E-mail : [green-p@hq.hpj.co.jp](mailto:green-p@hq.hpj.co.jp)  
TEL : +81-53-584-0268

#### **7. Reference**

Information on our Green Procurement Activities is available at the following URL address.  
<https://www.hamamatsu.com/jp/en/our-company/csr/procurement/green-procurement/index.html>

# Hamamatsu Photonics K.K.

Issued by Environmental Committee Headquarters

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