

**Industrial Automation Business Company  
Additional Investigation Manual for  
the Regulated Chemical Substances  
(For Supplier)**

March 2006      Ver. 1.0  
OMRON Corporation  
Industrial Automation Business Company

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## 1. Purpose of Survey

The purpose of this survey is to make clear the content, content ratio, and other relevant information with respect to the chemical substances listed additionally by Omron Industrial Automation Business Company (hereinafter called IAB) contained in the parts, materials, etc. used in IAB's products so that we can supply our customers with IAB's environmentally warranted products, thereby complying with the relevant laws and regulations as well as attempting to reduce the burden of our products on the environment.

Regarding the investigation of chemical substances for the whole Omron, please comply with "Investigation Manual for the Regulated Chemical Substances, ver. 2.0" or ver. 1.2".

## 2. Scope of Survey

The scope of this survey shall be as shown below:

### 2.1 Scope of products covered

- 1) Products designed, manufactured and sold by IAB
- 2) Products, the design and manufacture of which are outsourced by IAB or into which the products of other companies are purchased and incorporated, and which are sold with Omron brands (OEM products)
- 3) Products, the design and manufacture of which are entrusted with IAB by third parties (excluding, however, the parts or materials designated by the said third parties)

### 2.2 Scope of parts and materials covered

The parts, materials, etc. used in the products cited in 2.1 above (hereinafter referred to as "part(s) or material(s)") shall be the target for this survey, and the scope of them shall be as shown below:

- 1) Parts or materials (Electronic parts, processed parts, raw materials, packaging materials, packing materials, etc.)
- 2) Assembly articles such as functional units, modules and board assembly
- 3) Components including subsidiary materials (soldering materials, adhesives, inks, greases, tapes, etc.)
- 4) Instruction manuals
- 5) Service parts for repair and accessories (CD-ROM, cables, etc.)

### 3. Definitions

#### 3.1 Classification management of regulated chemical substances

Regulated chemical substances are classified into the following four categories according to the management criteria: A rank substances that are subject to immediate prohibition of application; A1 rank substances whose prohibition of application/ non-use should be practiced in order according to the decided timetable; B rank substances whose deadlines are not decided but which is subject to self acceleration of substitution; and C rank substances that are left to voluntary control but whose consumption are to be grasped.

IAB will identify and categorize the regulated chemical substances (as shown in Attachment 2 1) that are contained in our parts or materials constructing our products into Prohibited Substances, Non-use Substances, Substitution Accelerating Substances and Self Control Substances and promote their compliance and reduction of environmental burden according to the classification management.

##### 1) Prohibited Substances (A rank)

The substances whose use in products (parts or materials) have been prohibited by the regulations home and abroad or which IAB has defined in its sole discretion as Prohibited Substances since they are publicly known to be an environmental heavy burden and there exist substitute substances for them. If still used, such use must be discontinued immediately.

##### 2) Non-use Substances (A1 rank)

The substances whose regulations were formulated expressly and whose deadlines for prohibition were stipulated , and schedule for non-use/prohibition has been accelerated by IAB. If used currently, such use must be discontinued by the replacement with the available substitutes or other means before the accelerated deadlines for non-use. After the date of non-use/prohibition, these must be handled as "Prohibited Substances (A rank)". There is not such applicable substances as of March 2010.

##### 3) Substitution Accelerating Substances (B rank)

Those substances whose regulations are expected to be tightened further, so that the allowance may be reduced or the use may be prohibited. We have to study or promote the acceleration of substitution. There is not such applicable substances as of March 2010.

##### 4) Self Control Substances (C rank)

The substances whose use has not been prohibited by regulations home and abroad, but on which we are going to grasp the status of application and to reduce the consumption, recycle or treat appropriately. We will investigate the consumption and the contents in our products, and control them appropriately.

### 3.2 Part component

Part component means the minimum unit of a part or material that can be disassembled, by which it is examined if the substance in question is “Contained” or “Not Contained”.

\* Example: When a cable is picked up, the part components are the exterior sheath of cable (jacket), interior jacket of cable (insulation), electric wire, connectors, and connector terminals

Note that the surface coatings (plating, chromate treatment, coating, etc.) are handled as a separate part component from the base material.

### 3.3 “Contained” or “Not Contained”

“Contained” means that manufacturers have intentionally used, filled or adhered (called “intentionally used”) chemicals to products or parts or materials for the purpose of continually maintaining the function or quality of them regardless of the type of constituent or the amount contained. Insofar as impurities are concerned (see Section 3.6), however, it shall be regarded as “Contained” if the content exceeds the allowable concentration (threshold), and “Not Contained” if not exceeds the allowable concentration.

Ensure that such materials not containing the Prohibited Substance are employed for the part component of metallic molds, tools and jigs, machines and equipment that have direct contact with products.

If any regulated chemical substance used in the manufacturing process is not present in the final product, its status is regarded as “Not Contained”. (Example: When parts or materials are cleaned with volatile solvents, it is regarded as “Not Contained” since such solvent does not remain basically.)

Note: The definition of “intentionally used” in “Annex II of EC Directive 2002/525/EC on ELV reads as follows: “deliberately utilized in the formulation of a material or component where its continued presence is desired in the final product to provide a specific characteristic, appearance or quality

### 3.4 Content ratio

- 1) To make a compatibility evaluation of the allowable concentrations of the target regulated chemical substances cited below\*, the content ratio is calculated by the ratio of the mass of the part component to that of the regulated chemical substance contained therein, both of which are of the same material.

• Content ratio (ppm)={Mass of the regulated chemical substance contained in the part component (g) / Mass of the part component(g)} $\times 10^6$

\* The target regulated chemical substances: Perfluorooctane Sulfonate (PFOS) in the Prohibited Substances in 76/769/EEC.

- 2) Except the Substances above 1), in order to calculate the content of regulated chemical substances as IAB’s product, the content ratio is calculated by the ratio of the mass of the whole part or material to that of the regulated chemical substance contained therein.

• Content ratio (ppm) = {Mass of regulated chemical substance contained in the

whole part or material (g) / Mass of the whole part or material (g)} x 10<sup>6</sup>

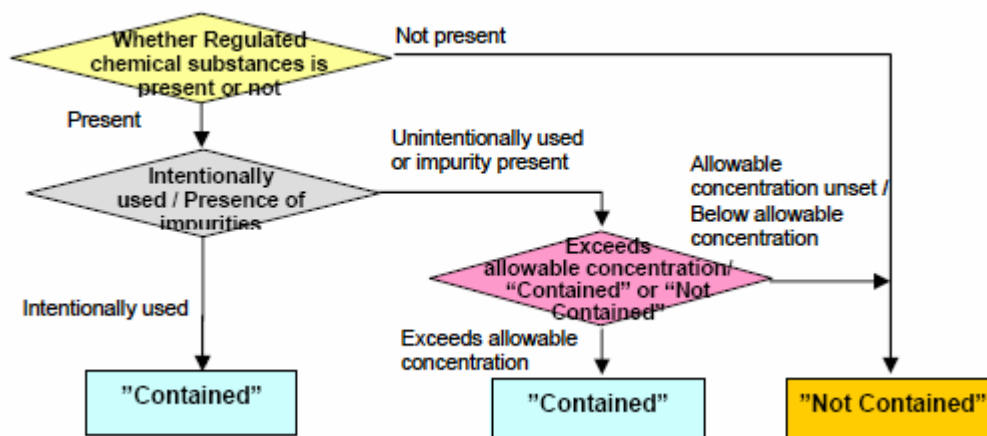
- 3) Content ratio of the regulated chemical substances in raw materials (molding compounds, metallic materials) or subsidiary materials (solders, adhesives, inks, etc.) is calculated by the ratio per unit weight.

- Content ratio (ppm)=Ratio of regulated chemical substances per unit weight

### 3.5 Allowable concentration (threshold)

In this manual, the allowable concentration (threshold) is the maximum content 6/64 ratio of a Prohibited Substance or a Non-use Substance allowable as an impurity to the part or material. If it exceeds the allowable concentration, it is regarded as “contained”, and if not exceeds, it is regarded as “not contained.” Since there is no setting of allowable concentration for Substitution Accelerating Substances and Self Control Substances, they are regarded as “not contained” unless intentionally used. (See Figure 1)

Fig. 1 Relation among “Contained”, “Not Contained”, impurities, and allowable concentration



### 3.6 Impurities

Substances not intentionally used, filled or adhered, or those present in natural materials and technically impossible to eliminate during raw materials refining process or technically impossible to eliminate during synthetic reaction process (residual matter such as residual solvents and unreacted monomers), or those added for the purpose of accelerating reaction during manufacturing process but not maintaining the functions or qualities of the products or materials continually (for example, catalysts), or those contained in the raw materials for alloys (ores, etc.) and impossible to eliminate during manufacturing process, are regarded as impurities.

### 3.7 Certificate of Non-Contain for Regulated Substances

This is a certification by which the supplier guarantees that none of the Prohibited Substances or Non-use Substances cited in the regulated chemical substances lists of Attachment 1 are intentionally used in the parts or materials supplied as a principle (“Not Contained”).

### 3.8 Changes in technical matter (design and process) of parts or materials

Design changes include changes of drawings in shape, material, dimension, circuit, software, etc. and product standards / specifications (change of materials of part or material, change of plating treatment, etc.)

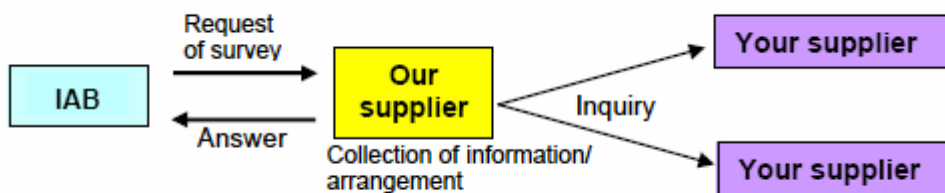
Process changes include the changes in the matters relating to the description in the manufacturing standards (process quality confirmation drawing, operation manual, inspection manual, etc.) and changes in places of production and production facilities.

## 4. Contents of Survey

### 4.1 Survey basis

We are going to survey the content, content ratio, part component, and intended use of the regulated chemical substances for each part or material.

The suppliers are requested to collect the information on the substances “Contained” in each of the parts or materials comprising your products delivered to IAB (including subsidiary materials such as inks, adhesives, etc.) and return the results to us on your own responsibility. If there is no information on any of them, please inquire each of your suppliers of them. After such are fully done, you could arrange the information in order for each part or material to answer our questions.



### 4.2 Survey forms

- (1) “Certificate of Non-Contain / Confirmation of Self Control Chemical Substances (for IAB)”
- (2) “Survey Form for the Additional Regulated Chemical Substances (for IAB)”

#### 4.3 Procedure for returning the completed survey forms

Prepare your answers for "Certificate of Non-Contain for Regulated / Confirmation of Self Control Chemical Substances (for IAB)" in the form of electronic file, and upload it to Omron's Rechs website in the Internet.

(<https://www.rechs.omron.co.jp>)

If the Self Control Substances (C rank) are included, please send "Survey Form for the Additional Regulated Chemical Substances (for IAB)" to the following e-mail address:  
(e-mail: [chemi\\_iab@ssa.omron.co.jp](mailto:chemi_iab@ssa.omron.co.jp))

#### 4.4 Instructions for survey forms

- 1) On Attachment 2 "Certificate of Non-Contain for Regulated / Confirmation of Self Control Chemical Substances (for IAB)"

When none of Prohibited Substance (A rank) and Non-use Substance (A1 rank) are "contained", enter the information on your part or material and the company information, and then put signature of your responsible person.

And mark the check box if the Self Control Chemical Substances is used.

If you have surveyed in accordance with IAB's request, please mark item "1.(1)

Investigation Manual for the Regulated Chemical Substances ver. 1.2".

Other than that, please mark "1.(1) Investigation Manual for the Regulated Chemical Substances ver. 2.0"

(Note) Responsible person means a person who is in a position to guarantee the contents entered in the Survey Forms for the Regulated Chemical Substances and to take the responsibility for any unexpected accidents (occurrence of compensation for damages, etc.). When the column for parts list is not enough for your entry, please prepare the attached sheet for parts list.

- 2) Deliberate check on the substances whose allowable concentrations (threshold) are specified among Prohibited Substances/Non-use Substances

If any substance was not intentionally used and the impurities are estimated to be contained above the allowable concentration, analysis (measurement) should be performed. If you judge it is unlikely to be the case, complete the Attachment 2 "Certificate of Non-Contain / Confirmation of Self Control Chemical Substances (for IAB)" after checking it with the manufacturing specifications.

- 3) Duration of guarantee for "Not Contained"

The guarantee for "Not Contained" shall continue from the issue date until the use and manufacture of the part or material is discontinued. However, you may be required to produce the analytical data when requests arise from IAB customers in some cases.



4) "Survey Form for the Additional Regulated Chemical Substances (for IAB)"

- (1) If any Substitution Accelerating Substances (B Rank) or the Self Control Substances (C Rank) is contained by over 1,000 ppm, please fill out the columns of the content, content ratio, part component, and intended use of the regulated chemical Substances for each part or material.
- (2) If such substance is not contained by 1,000 ppm, do not fill out any columns. Such a substance is considered to be less than 1,000ppm.
- (3) Please name a file name as "survey forms\_(A)\_(B)\_(C).xls"  
(A) is a Abbreviation of the Request Site, 4 digits  
(B) is a Code number of your company, 8 digits  
(C) is a Preparation date for the survey form, yyyymmdd, 8 digits

(Example) Request Site is Omron Ayabe factory and you prepared the form on March 25, 2010.

(A): AYA-

(B): 02123456

(C): 20100325

File name: AYA-02123456\_20100325.xls

Request Site	Abbreviation
Omron Ayabe	AYA-
Omron Kusatsu	KUSA
Omron Aso	ASO-
Omron Shanghai	OMS-

4.5 In the case any of Prohibited Substances/Non-use Substances is "Contained"

- 1) If any of Prohibited Substances (A rank) is "Contained" in the existing part or material, you are required to report the fact to the section-in-charge of IAB and exclude the part or material in question immediately. The purchase of the existing part or material in such a state shall be discontinued in principle.
- 2) If any of Non-use Substances (A1 rank) is contained, such part or material, on which Non-use Plan has not been established by IAB's designated deadline, shall not be purchased in principle.
- 3) If any of Prohibited Substances (A rank) or Non-use Substances (A1 rank) is contained, please mark "Q1" in the sheet 1 of "Survey Form for the Regulated Chemical Substances (for Rechs) ", and note that "XXX\*<sup>1</sup> is contained" in "Remark".  
Regarding the chemical substance which is not listed in sheet 3, you do not need to note about the content and content ratio.  
(Note) \*<sup>1</sup> is the chemical substances which are Prohibited Substances (A rank) and Non-use Substances (A1 rank) by "Regulated Chemical Substances (for IAB) ".

4.6 Although this manual provides the IAB's common way of survey of the regulated chemical substances, further survey might be requested subject to the business needs.

## **5. Revision**

This manual is subject to revise depending on changes in social conditions and trend of legal regulations.

**1. Prohibited Substances (A rank)**

Prohibit use and content. If still used or contained, such use must be discontinued by the replacement with the available substitutes or other means.

Substances	CAS No.	Vernacular	Sample Application	Allowable Concentration (Unit: ppm)	Applicable Laws and Regulations
Perfluorooctane sulfonate and its salts	—	PFOSs	Surfactants, water repellants, detergents, dispersants	See next page	76/769/EEC (Use-prohibited substances)
2-(2H-1,2,3-benzotriazol-2-yl)-4,6-di-tert-butylphenol	3846-71-7	TINUVIN 320	Ultraviolet absorbers, adhesives, paints, and ink for the plastic products, etc.	Prohibition of intentional addition	Japan Law concerning the evaluation of chemical substances
Dimethylfumarate	624-49-7	DMF	Biocide, fungicide (add to desiccant)	less than 0.1ppm	2009/251/EC
Formaldehyde	50-00-0	Formalin	Preservative, disinfectant, feedstock for resins, surfactan	Composite wood, Textiles; Prohibition of intentional addition	US/CA CARB Rule, Austria – BGB I 1990/194: Formaldehydverordnung, § 2, 12/2/1990;
Hexachlorobenzene	118-74-1	HCB	Feedstock for organic synthesis	Prohibition of intentional addition	Japan Law concerning the evaluation of chemical substances

**2. Non-use Substances (A1 rank)**

Stipulate the deadline of non-use, and do away with. If still used or contained, such use must be discontinued. After the deadline, these must be handled as “Prohibited Substances (A rank)”. There is not such applicable substances as of March 2010.

**3. Substitution Accelerating Substances (B rank)**

It is allowable to use or contain until the regulations enforces, we have to study or promote the acceleration of substitution.  
There is not such applicable substances as of March 2010.

**4. Self Control Substances (C rank)**

The priority is independently decided within a technically and economically possible range, and we have to try to reduce and replace. We will investigate the consumption and the contents in our products, and control them appropriately.

Substance name	CAS No.	Vernacular	Sample Application	Reporting level (Unit: ppm)	Applicable Laws and Regulations
Dibutyl phthalate	84-74-2	DBP	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	1,000ppm	1907/2006/EC REACH Regulation
Bis (2-ethyl(hexyl)phthalate)	117-81-7	DEHP	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	1,000ppm	1907/2006/EC REACH Regulation
Hexabromocyclododecane and all major diastereoisomers identified ( $\alpha$ -HBCDD, $\beta$ -HBCDD, $\gamma$ -HBCDD)	25637-99-4 3194-55-6 (134237-50-6, 134237-51-7, 134237-52-8)	HBCDD	Flame retardant mainly used for expanded polystyrene and some types of fiber	1,000ppm	1907/2006/EC REACH Regulation
Benzyl butyl phthalate	85-68-7	BBP	Plasticizer, dye, pigment, paint, ink, adhesive, lubricant	1,000ppm	1907/2006/EC REACH Regulation

## Classification Management of Perfluorooctane sulfonate and its salts

Substance Name (Substance Group Name)	Rank	Applications and Applicable Conditions	Allowable Concentration (Unit: ppm or ( $\mu$ g/m <sup>2</sup> ))	Deadline for prohibition of its use in parts, etc.	Applicable Laws and Regulations
Perfluorooctane sulfonate and its salts	A	Substances and preparations (Example: raw materials, grease, oil, paints, adhesives, cleaning solutions, etc.)	Less than 50ppm	2008/6/27	76/769/EEC (30th amendment for 2006/122/EC)  (Note) Allowable concentration refers to the concentration for each homogeneous material (constituent part component)
	A	Parts, semi-finished products, products	Less than 1,000ppm (Note)		
	A	Textiles, other coating materials (paper, films, leathers, etc.)	Less than 1 ( $\mu$ g/m <sup>2</sup> )		
	C	Photoresists or anti reflective coatings for photolithography processes	—	—	
	C	Photographic coatings applied to films, papers, or printing plates,	—	—	
	C	Mist suppressants for non-decorative hard chromium (VI) plating and wetting agents for use in controlled electroplating systems where the amount of PFOS released into the environment is minimized	—	—	

To: Omron Corporation

**Certificate of Non-Contain / Confirmation of  
Self Control Substances Chemical Substances (for IAB)**

**Company name :** \_\_\_\_\_

**Job description :** \_\_\_\_\_

**Signature :** \_\_\_\_\_

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

**Tel :** \_\_\_\_\_

Based on "Investigation Manual for the Regulated Chemical Substances Version 2.0" and "Industrial Automation Business Company Additional Investigation Manual for the Regulated Chemical Substances (For Supplier) Version 1.0" of Omron Corporation, we hereby certify that the chemical substances cited below are not contained in our products, parts or materials listed below (including accessories, packing/packaging materials, and other articles accompanying them) that are supplied for Omron Corporation (including its subsidiaries and affiliated companies) by the company (including its subsidiaries and affiliated companies).

And based on "Industrial Automation Business Company Additional Investigation Manual for the Regulated Chemical Substances (For Supplier) Version 1.0", we confirm and report whether the chemical substances cited following are contained or not:

1. Chemical substances not contained:

(1) Omron's Prohibited Substances (A rank): mark either check-box

- ☐ "Investigation Manual for the Regulated Chemical Substances Version 2.0": 16 substance groups (Standard)
- ☐ "Investigation Manual for the Regulated Chemical Substances Version 1.2": \*70 substance groups (in a case which is requested by Factory)
  - \*70 substance groups include the following 2 chemical substances under the Chemical Substances Control Law (Class 1 Specified Substances):
    - (1) Hexachloro-1,3-butadiene (Hexachlorobutadiene)
    - (2) Kelthane (2,2,2-trichloro-1,1-bis (4-chlorophenyl)ethanol)

(2) IAB Prohibited Substances (A rank): \*5 substances groups

\*For the name of a substance, refer to "Industrial Automation Business Company Additional Investigation Manual for the Regulated Chemical Substances (For Supplier) Version 1.0"

2. Chemical substances that confirmed whether content or not

(1) IAB Self Control Substances (C rank): \*4 substances groups

\*For the name of a substance, refer to "Industrial Automation Business Company Additional Investigation Manual for the Regulated Chemical Substances (For Supplier) Version 1.0"

If such substance is included, please mark the column of "Inclusion" in the following table, and send "IAB Survey Form for the Additional Regulated Chemical Substances" to the following e-mail address:  
chemi\_iab@ssa.omron.co.jp

## 3. Target products, parts or materials

	Product Number (no number: manufacturer's name)	Products Name	Type Name	Inclusion Yes=■ No=□
1				<input type="checkbox"/>
2				<input type="checkbox"/>
3				<input type="checkbox"/>
4				<input type="checkbox"/>
5				<input type="checkbox"/>
6				<input type="checkbox"/>
7				<input type="checkbox"/>
8				<input type="checkbox"/>
9				<input type="checkbox"/>
10				<input type="checkbox"/>
11				<input type="checkbox"/>
12				<input type="checkbox"/>
13				<input type="checkbox"/>
14				<input type="checkbox"/>
15				<input type="checkbox"/>
16				<input type="checkbox"/>
17				<input type="checkbox"/>
18				<input type="checkbox"/>
19				<input type="checkbox"/>
20				<input type="checkbox"/>

\* If the form is not enough for listing, please add the separate paper for listing.