

Case History: Chemical Management system in Omron. Tools, challenges and practical solutions

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Summary



Introduction

Who's Omron



Main obligations for Omron under RoHS & REACH

Supply chain collaboration is key.



Our global Product Environmental Assessment process

The Omron way to ensure compliance to RoHS, REACH and other Chemical legislations worldwide



RoHS & REACH Product Search Tool

Better service to our customers by automating product compliance



Conclusions

- Typical product compliance costs
- Key messages for today



Introduction

Who's Omron



OMRON at a glance



80 years

History



36,000 +

Employees worldwide



117

Countries worldwide



8224

issued patents



6.3%

Annual investment in R&D



200,000

Products



Omron businesses

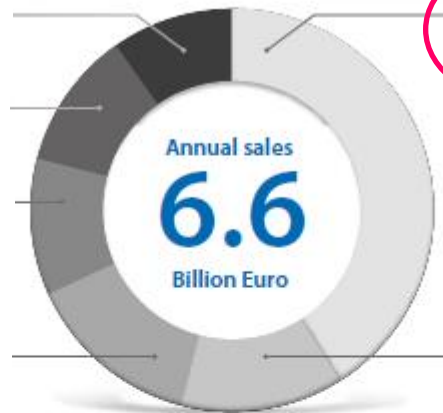
Social systems
8%

Healthcare
13%

Other business
9%

Automotive
16%

Industrial automation
42%



Sales by geographical region

Asia
70%

Europe
14%

Americas
16%



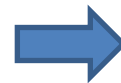
Welcome to Omron Industrial Automation Business unit

Business and supply chain model

What we offer:



Our customers



Main obligations for Omron under RoHS & REACH

Supply chain collaboration is key

RoHS

Regulated substances and timeline

ILLEGAL to sell products with concentrations above the thresholds!

- Restr. substances:**
1. Lead (0.1 %)
 2. Mercury (0.1 %)
 3. Cadmium (0.01 %)
 4. Chromium VI (0.1 %)
 5. PBB (0.1 %)
 6. (PBDE) (0.1 %)

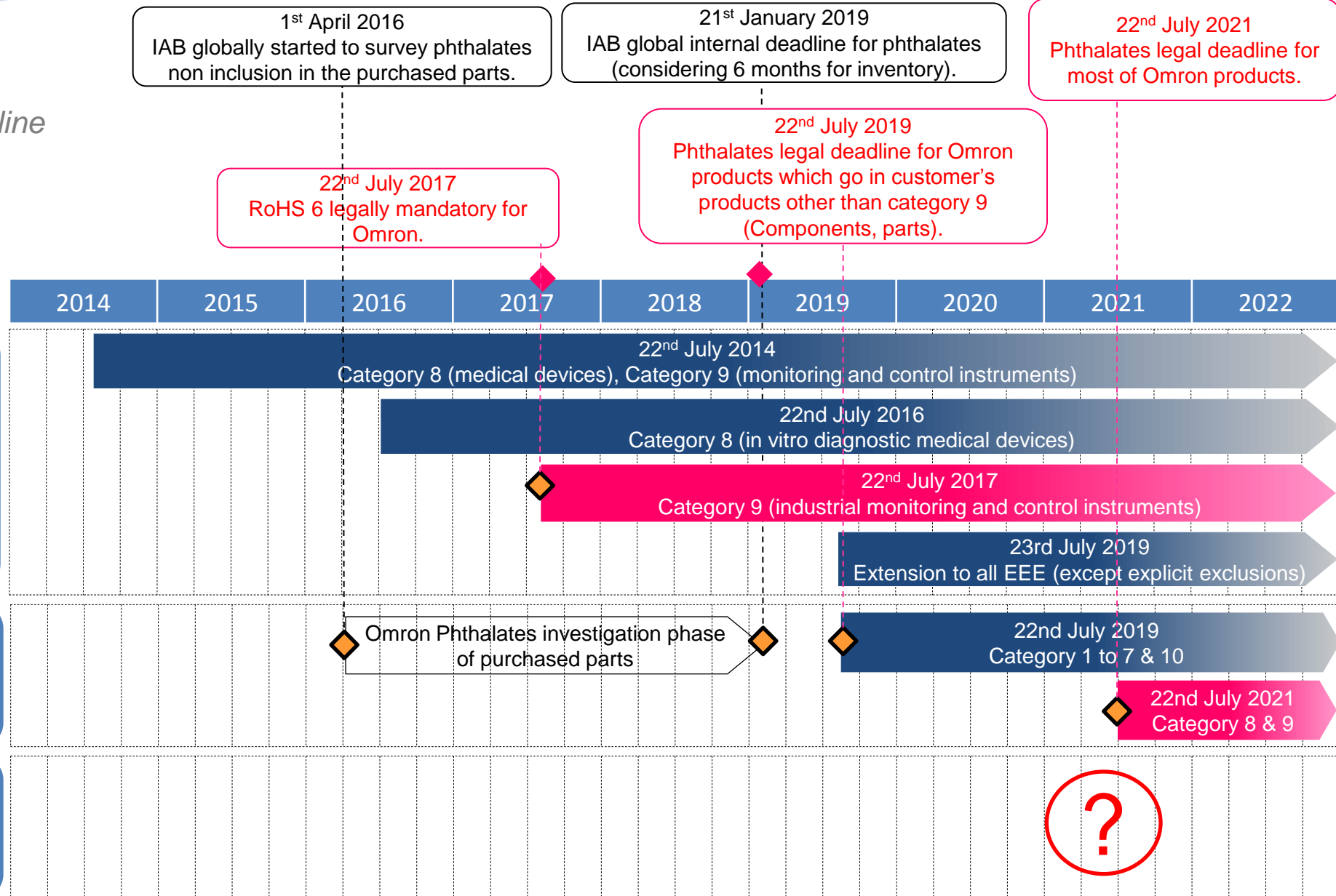
Open scope RoHS 6 substances

7. DEHP (0.1 %)
8. BBP (0.1 %)
9. DBP (0.01 %)
10. DIBP (0.1 %)

RoHS 10 substances (Phthalates)

Criteria to add new substances

Future: 7 more subst. under discussion



RoHS exemptions and exclusions

Not all EEEs in scope

Exclusions (article 2.4)

- in common with WEEE Directive.
- Exclusions never expire and are fixed.
- Limited amount: 10.

Ex. non-road mobile machinery:

Omron LD robots are excluded from RoHS.



Exemptions (Annex III and IV)

- very substance and application specific.
- expire after a period of 5 or 7 years and can be renewed (or not). The list constantly changes and evolves.
- From few, now exploded to more than 80!

*Ex. exemption n.5 in Annex IV:
Lead in shielding for ionizing radiation.
Applies to Omron AOI products.*



RoHS minimum unit

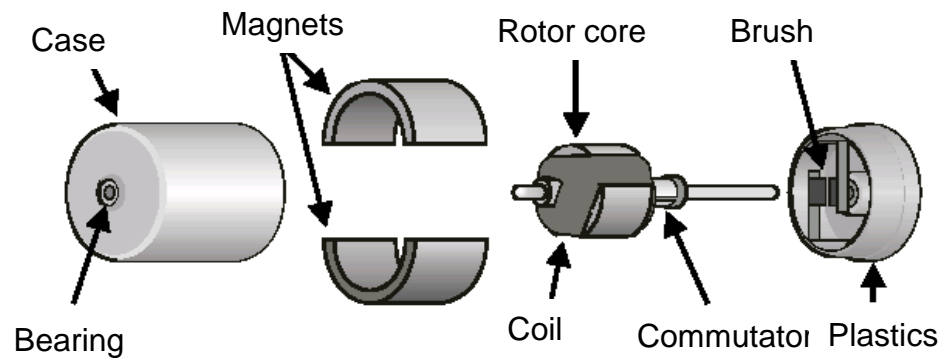
Homogeneous material.

Max substance concentration values applies for each homogeneous material individually.

- It's a material that can't be mechanically disjointed.
- Max concentration values apply to each individual homogeneous material.
- Covers thinner than 100 nm can be excluded from the necessity to be analyzed.

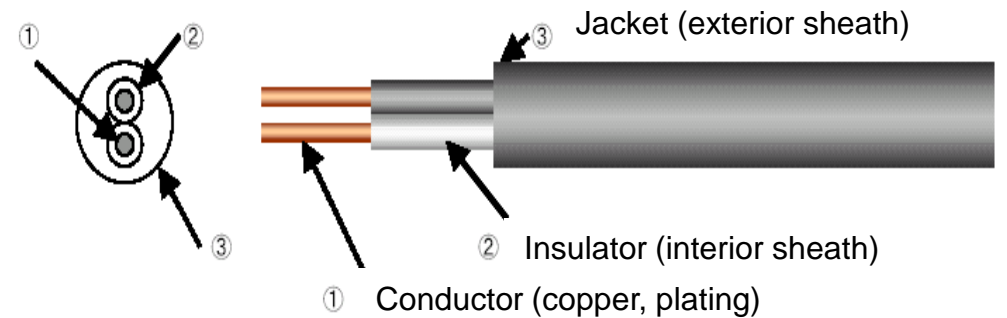
(Example 1) DC motors

Homogeneous materials : case (molded plastics) metal parts (shaft, rotor core, terminal, frame, etc), brush, magnet, coils, and others.



(Example 2) Electrical cable

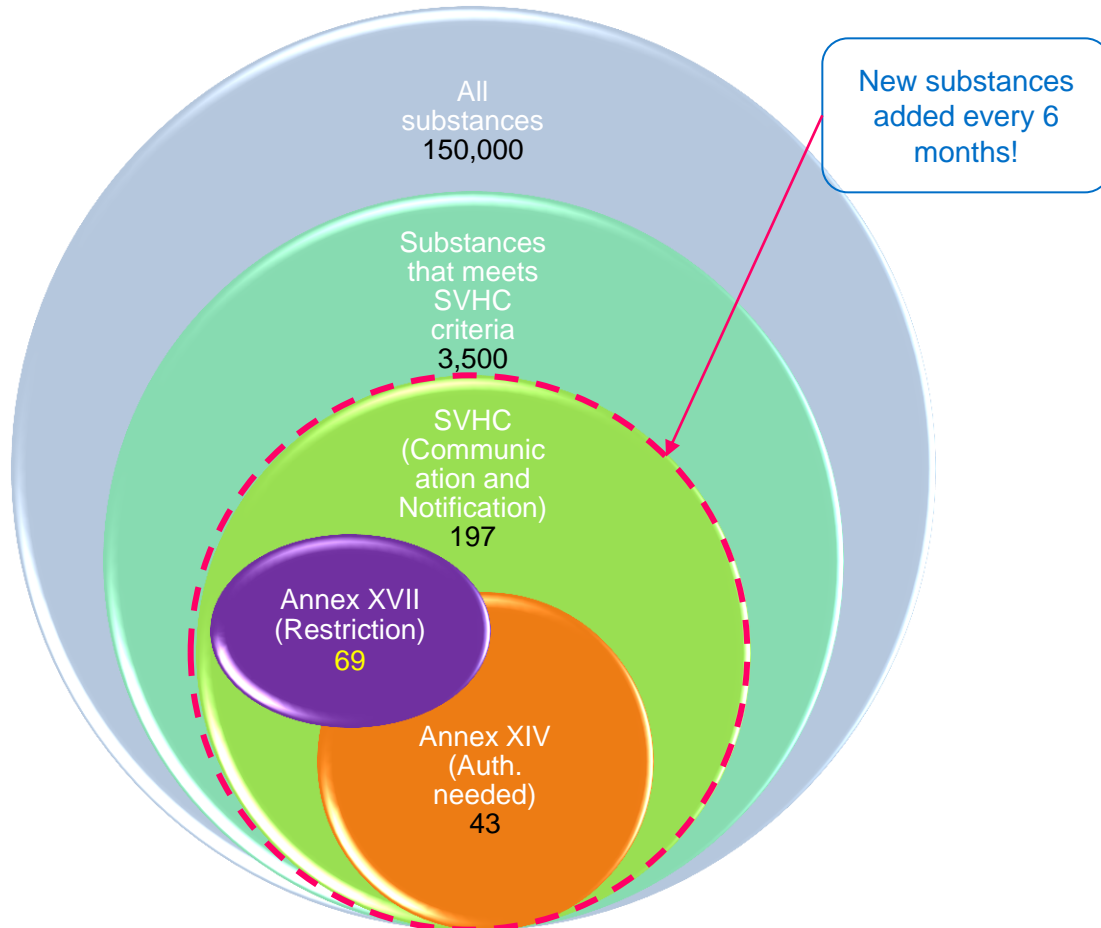
Homogeneous materials : Conductor (Copper, plating), insulator (interior sheath), and jacket (exterior sheath)



REACH

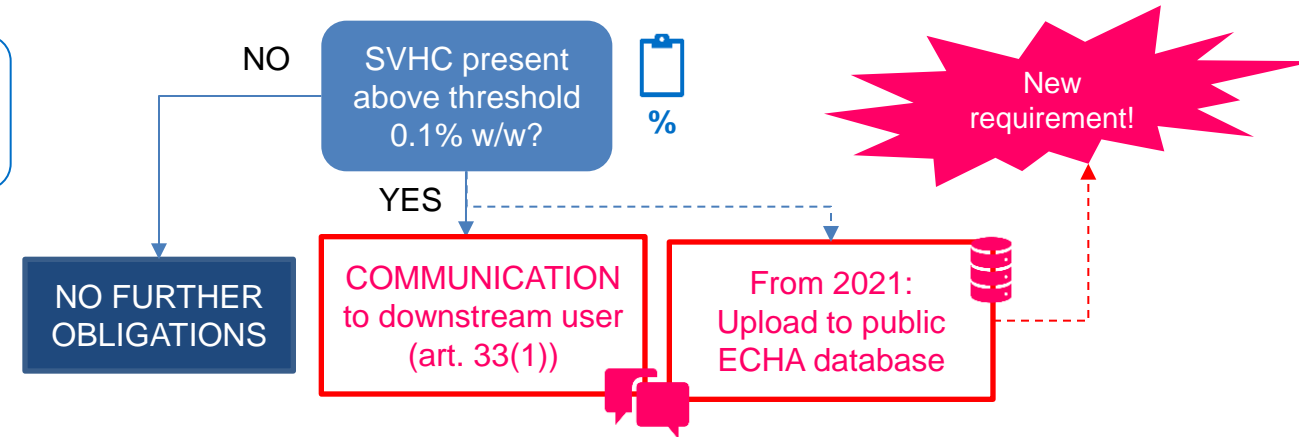
Regulated substances and obligations

SVHC: Substances of Very High Concern:
substances regulated today:



Omron is a downstream user.

Main obligation is communication of SVHC to downstream user.



Omron follows the standard **IEC 62474**, Material Declaration for the Electrotechnical Industry, which selects substance restrictions from international regulations applicable in our sector.

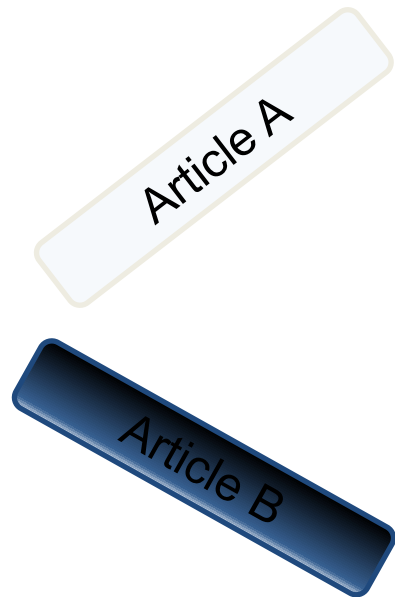
| Rank | Name |
|------|----------------------------------|
| A | 37 Prohibited Substances |
| A1 | 4 Non-use Substances |
| B | 77 Content management Substances |
| C | 4 Self Control Substances |

REACH minimum unit

Max substance concentration value applies for each article or mixture individually.

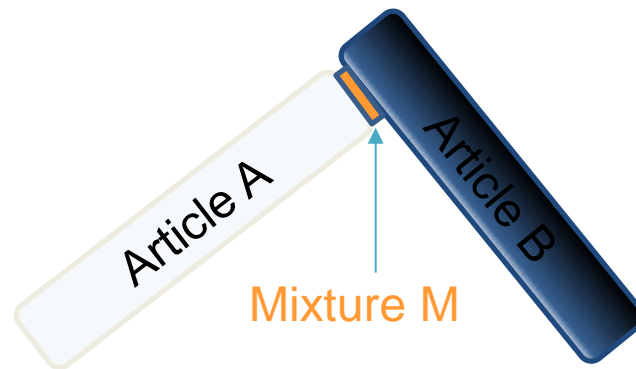
Article

Article it's an object for which its function is determined more by its shape than by its chemical composition.



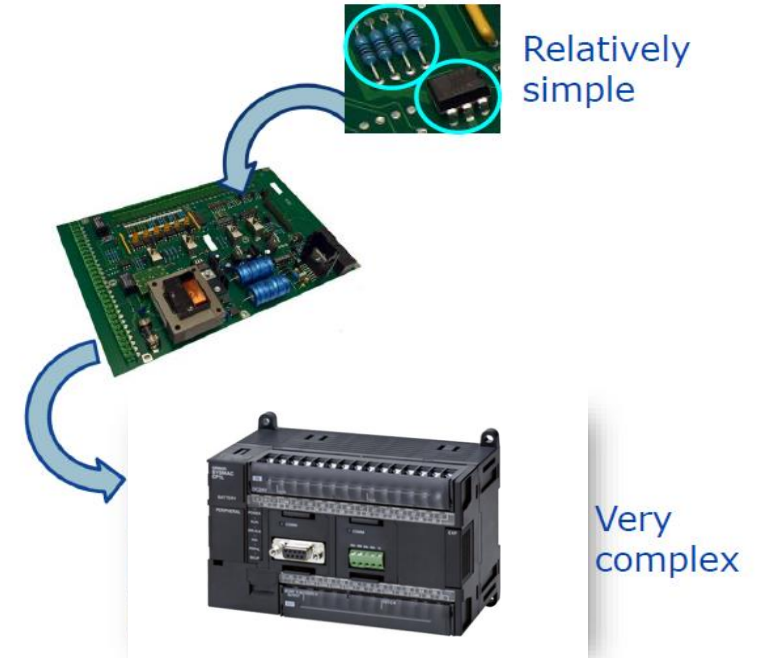
Complex object

Article can be assembled to become a complex object.



Very complex object

Electronic boards are considered very complex objects, since they contains many articles.



Typically hundreds or thousands of articles in our products!

Evidences of compliance

REACH:

Communication down the supply chain is preferred, chemical analysis not recommended

RoHS:

CE Mark: When present on product indicates presumption of conformity. But most of the times not applicable to the parts we purchase.

EN 50581: Technical documentation for the assessment of RoHS 2. It's about risk management, see example matrix below. Omron applies this standard.

Table B1 in Annex 1 of IEC/PAS 62596:2009 as guidance

| | | Risk that the part contains a RoHS substance | | |
|--|--------------------------------------|--|---------------------------------------|-------------------------|
| | | Low | Medium | High |
| Results of audits, past experience, etc... | Trustworthiness of the supplier High | Contractual Agreements, declarations | | |
| | Medium | | Material Declaration (like IEC 62474) | |
| | Low | | | Analytical test results |

Omron has more than 3,500 suppliers, from all over the world, many are SMEs

Reality

Still there are good and bad suppliers:

«Good» SUPPLIER

OMRON: We'd like to know **Chemicals** of products we buy from you.

Supplier: Sure, I know my obligations. **Let's do that!**

«Bad» SUPPLIER

OMRON: We'd like to know **Chemicals** of products we buy from you.

Supplier: Sorry, I don't know what you're talking about and I'm too busy. **I can't help you.**

Our global Product Environmental Assessment process

The Omron way to ensure compliance to RoHS, REACh and other Chemical legislations worldwide

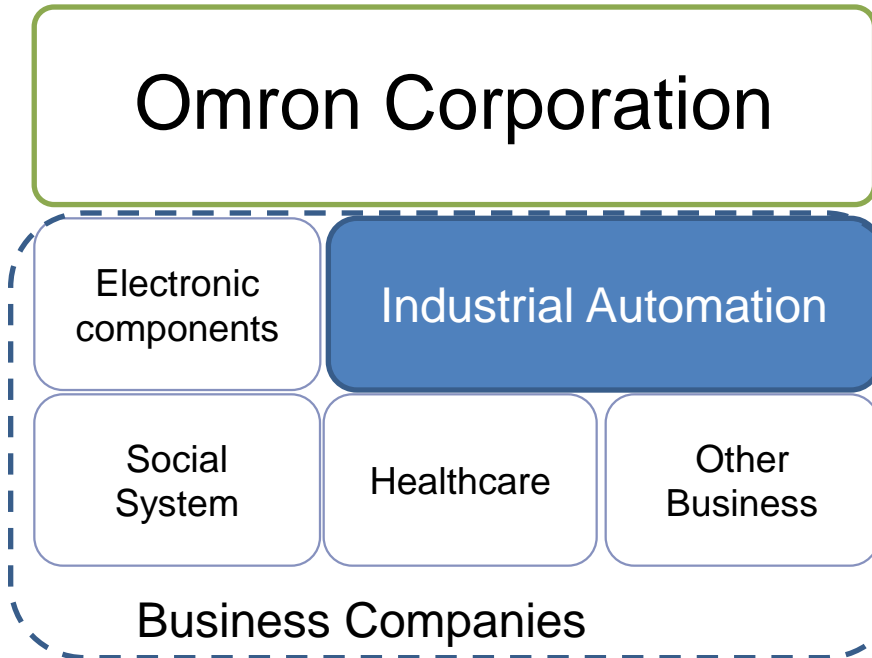
Welcome to PEA

Why Omron has PEA?

- to minimize the environmental burden of products;
- to comply with the environmental regulations and standards of various countries (EU RoHS & REACH included);
- and to provide an environmental warranty.



Who defined PEA?



Establishes rules at Group level

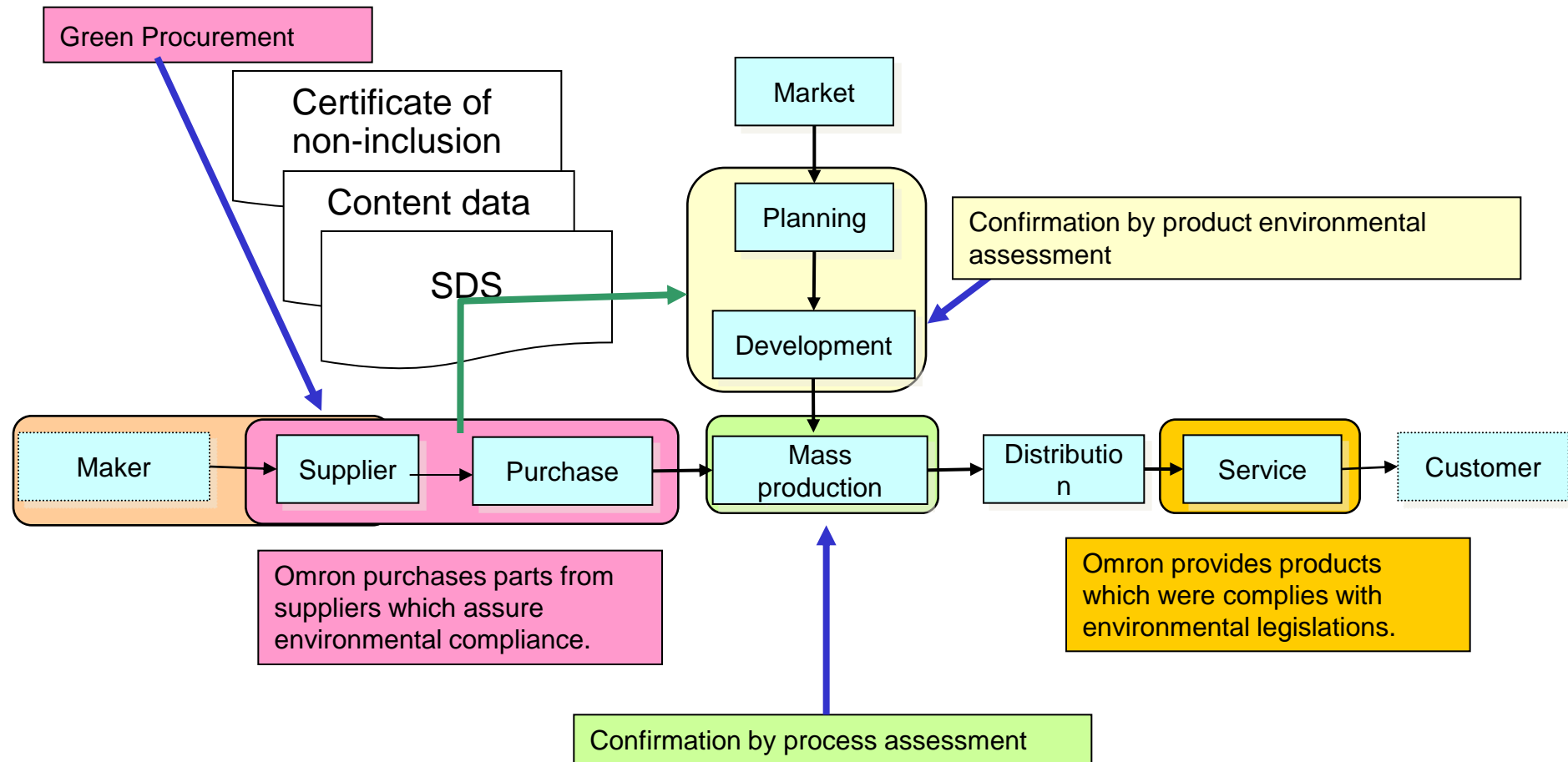
Omron Group Rules

| 発行日 / Date | タイトル / Title | 発行元 / Division | 件数 / No. |
|------------|---|----------------|----------|
| 02/08/2017 | 規定・指図書・通知の台帳 (リンク付き) / Inventory of Regulations, Guides and Notices (with link icons) | (GQ) 標準 (K) | 1 |
| 31/05/2019 | 02 IAB 有害物質フリー - 規定 / IAB Hazardous substances-free Regulations | (GQ) 標準 (K) | 14 |
| 07/02/2017 | 製品環境アセスメント適用規定 Product Environmental Assessment regulation 产品环境评估应用规定 | (GQ) 標準 (K) | 1 |
| 02/08/2017 | 仕入先規制化学物質の管理 (体制監査規定 Audit Regulation for Regulated Chemical Substances Management System of Suppliers 供应源限制化学物质管理体制监察規 | (GQ) 標準 (K) | 1 |
| 10/05/2017 | 顧客への規制化学物質情報提供規定 Regulation for Providing Information of the Regulated Chemical Substances to Customers 顾客限制化学物质信息提供規定 | (GQ) 標準 (K) | 1 |
| 16/01/2015 | RoHS-ラベル表示規定 Marking Regulation for RoHS mark RoHS表示規定 | (GQ) 標準 (K) | 1 |
| 16/01/2015 | 規制化学物質管理規定 Regulated Chemical Substances Management Regulation 限制化学物质管理規定 | (GQ) 標準 (K) | 1 |
| 20/02/2014 | 部品の規制化学物質分析規定 Analysis Regulation for Regulated Chemical Substances of Parts | (IAB) 品簿 | 1 |

Environmental compliance dedicated process

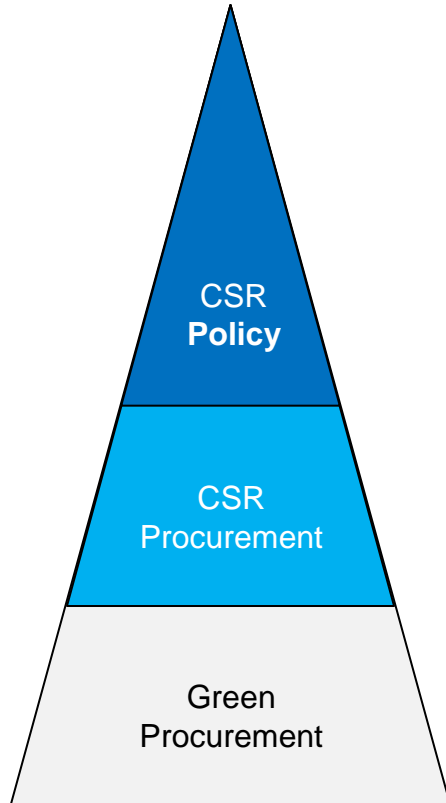
Chemical Management System in our factories

Various departments collaborate during product development to ensure that Omron products comply with environmental legislations, including EU RoHS



Why Green Procurement?

Green Procurement is an important measure for realizing CSR procurement “Ecology” policy (Reduction of environmental impact), and “Compliance” (observance of laws and social norms).



(1) CSR (Corporate Social Responsibility) policy

(2) CSR procurement

Promoting CSR procurement based on fair business and purchasing policy.

[Key Policies]

- 1) “Ecology” (Reduction of environmental impact)
- 2) “Compliance” (respect of laws and social norms)

■ Green Procurement

Purchase parts from suppliers that have a clear environmental management system, and who manage and provide information on regulated chemical substances

https://www.omron.com/about/sustainability/enviro/procurement/green_procurement/



Omron forms for supplier's survey

Certificate of non-inclusion

From **OGR**:
Based on chemical substances inclusion

Available in Japanese, Chinese and English

To: Omron Corporation

Declaration of Phthalates of RoHS

... (A1 rank) still contained in the aforesaid.

1. Subject Substances

Chemical substances listed in "Attachment 1. List of Regulated Chemical Substances" in Omron's Investigation Manual for Regulated Chemical Substances (Version 4.1).

Banned substances (A rank): 37 substances (substance groups)
Non-use substances (A1 rank): 4 substances (substance groups)

* It is confirmed that these are not used in the applications defined for A and A1 ranks.
* With the premise that Omron Corporation shall not use Nickel and Phthalates Group 1 and 2 in any

2. Target products, parts or materials

| | Course Product Number | Product Name | Remarks | Substance | Application Code (Date of regulation/Code) in Enclosed Application List | Deadline for Non-use (MM/YYYY) |
|----|-----------------------|--------------|---------|-----------|---|--------------------------------|
| 1 | | | | | | |
| 2 | | | | | | |
| 3 | | | | | | |
| 4 | | | | | | |
| 5 | | | | | | |
| 6 | | | | | | |
| 7 | | | | | | |
| 8 | | | | | | |
| 9 | | | | | | |
| 10 | | | | | | |
| 11 | | | | | | |
| 12 | | | | | | |
| 13 | | | | | | |
| 14 | | | | | | |
| 15 | | | | | | |

* Attach additional sheet, if necessary.

Omron follows the standard **IEC 62474**, Material Declaration for the Electrotechnical Industry, which selects substance restrictions from international regulations applicable in our sector. Omron factories started to survey phthalates inclusion in the purchased parts from April 2016.

| Rank | # of substances - description |
|------|---|
| A | 37 - Prohibited Substances |
| A1 | 4 - future abolishment (the RoHS 2015/863 4 phthalates) |
| B | 77 - Content management |
| C | 4 - Self Control |

- In order to increase supplier's response rate:**
- we **adapt** our survey form based on supplier's preferred language and culture.
 - We minimize burden at the supplier by avoiding to **survey** all the 197 substances requested by REACH.
 - We also evaluate suppliers' own declarations

Parts Regulatory Compliance Survey Sheet

From **IAB**:
Based on Regulatory compliance

IAB-ENV-R010B-04 Ver 1.0.1
Page (1 /).1

To OMRON Corporation

Parts

Company Name, Address, Stamp, Tel/fax, Title, Signature, Date

We hereby confirm the regulatory compliance status of the following parts as follows:

1. Parts

| | Part No. | Part name | Model |
|---|----------|-----------|-------|
| 1 | | | |
| 2 | | | |
| 3 | | | |

2. Laws and regulations

(1) Indispensable regulation

Please attach your company compliance or policy statements for applicable regulations (RoHS, Reach)

| | Laws and regulations | Specific uses | Compliance |
|----|--|------------------------------------|------------|
| 1 | EU: Directive 2011/65/EU on the Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment (RoHS Directive) | All product uses (Excl. batteries) | |
| 1a | RoHS exemption applied (please attach details) | | |
| 2 | EU: REACH Regulations, Annex XVII, Restrictions on the Manufacture, Placing on the Market and Use of Certain Dangerous Substances, Preparations and Articles | All product uses | |
| 2a | Article 33 and 7.2 of REACH Regulation (EC) No 1907/2006 (Candidate list of SVHC) (please attach details) | | |
| 3 | EU: Guidelines 94/62/EC of the European Parliament and the Council Regarding Packaging and Packaging Waste | Packing materials | |
| 4 | EU: Council Directive 2006/66/EC on Batteries and Accumulators Containing Certain Dangerous Substances (Batteries Directive) | Batteries | |

Easier to be understood by Western suppliers

Suppliers' declaration forms

Good or bad?

Technische Produkte
Qualitätsmanagement

Omron Manufacturing of the Netherlands B.V.
Zilverenberg 2
5234 GM, 's-Hertogenbosch, THE NETHERLANDS

Confirmation – environmental regulations of prohibited substances

We confirm, that products supplied by of the following product lines:

Part-Nr.: 191880 - Silicone hose ID 4mm x 1mm natural-coloured (Omron Nr.: AOII0019)
Part-Nr.: 10003733 - PTFE hose without inset 2mm DN x 4mm OD nature (Omron Nr.: AOII0018)
Part-Nr.: 10019104 – Sekundenkleber Pattex Plastik PSA1 Tube 4ml/2g (Omron Nr.: ABKK0014)

state of our knowledge contain no prohibited substances according to the marked guidance, Exclusive of natural pollution and environmental conditions.
 Since has no effect on the application of the above products, does not provide any explicit or implicit guarantee or warranty or other liability in connection with the use of information contained in this document.

EU - Regulation (EG) Nr. **1907/2006 (REACH)**

EU - Directive **RoHS 2011/65/EU + 2015/863 (RoHS 3 update 2015)**

Reutlingen **09.08.18**
City, Date

This record is computer – generated and is thus also valid without a signature

| Result | Check point | Comment |
|--------------|---|---|
| ✓ | Does it have a date? | |
| ✓ | Is it signed by someone knowledgeable? | Not signed, but company's contacts are there. |
| ✓ | Does it indicate unique reference to the legislation? | |
| ✓ | Does it indicate the list of products? | Item numbers match with the ones requested by Omron |
| ✓ | Is compliance status clearly mentioned? | |
| VALID | | |

Suppliers' declaration forms

ROHS Certificate of Compliance

ROHS Certificate of Compliance

Dear Customer,

... declares hereby and certifies that all our products are RoHS compliant according to the European Union Directive 2002/95/EC for Restriction of Hazardous Substances (RoHS) and the revised and recast Directive 2011/65/EC (RoHS 2), and the latest amendment Directive (EU) 2015/863 and does not exceed maximum limits listed below:

| RoHS Restricted Substance | Allowable Limit |
|---------------------------------------|-----------------|
| Cadmium and its compounds | 100 ppm |
| Mercury and its compounds | 1000 ppm |
| Hexavalent chromium and its compounds | 1000 ppm |
| Lead and its compounds | 1000 ppm |
| Polybrominated biphenyls (PBB) | 1000 ppm |
| Polybrominated diphenyl ethers (PBDE) | 1000 ppm |
| Bis(2-ethylhexyl) phthalate (DEHP) | 1000 ppm |
| Butyl benzyl phthalate (BBP) | 1000 ppm |
| Dibutyl phthalate (DBP) | 1000 ppm |
| Diisobutyl phthalate (DIBP) | 1000 ppm |

This statement is based on information provided by ... suppliers and is accurate to the best of our knowledge.

Sincerely,

Director of Corporate Quality

quality@... .com

... product is exempt from the lead-free requirement under Exemption 15 (Lead in solders to complete a viable electrical connection between semiconductor die and carrier within integrated circuit flip chip packages).

Page 1 of 1
Date: 14 June 2017


REACH SVHC Certificate of Compliance_173 Substances


REACH SVHC Certificate of Compliance

Dear Valued Customer,

... has conducted a survey of its manufacturing subcontractors to assess the impact of "Substances of Very High Concern" (i.e. SVHC) on its products. Based upon this assessment and as of this writing, ... has determined that its products do not contain the substances specified in the below REACH candidate list of SVHC, above the 0.1% (w/w) threshold.

More information can be found at <http://echa.europa.eu/candidate-list-table>.


Dror Jerushalmi
CEO


Director of Corporate Quality
and Operation

Page 1 of 10
Date: 8 February 2017

| Result | Check point | Comment |
|--------------|---|--|
| ✓ | Does it have a date? | |
| ✓ | Is it signed by someone knowledgeable? | |
| ✓ | Does it indicate unique reference to the legislation? | |
| ✓ | Does it indicate the list of products? | It refers to "all products". It's too generic, but still acceptable. |
| ✓ | Is compliance status clearly mentioned? | |
| VALID | | |

Suppliers' declaration forms

Good or bad?

RoHS and REACH declaration

Input systems

April, 3th 2018

To whom it may concern

Subjects:

1. **European Restriction of Hazardous Substances (RoHS 2) EU Directives 2011/65/EU with amendment 2015/863/EU.**
 - Restriction on use of:
 - Lead (0,1%)
 - Mercury (0,1%)
 - Cadmium (0,01%)
 - Hexavalent chromium (0,1%)
 - Polybrominated biphenyl (PBB) (0,1%)
 - Polybrominated diphenyl ethers (PBDE) (0,1%)
 - Bis (2-ethylhexyl) phthalate (DEHP) (0,1%)
 - Butyl benzyl phthalate (BBP) (0,1%)
 - Dibutyl phthalate (DBP) (0,1%)
 - Diisobutyl phthalate (DIBP) (0,1%)
2. **EU Regulation (EC) 1907/2006 (REACH)**
 - Registration, Evaluation, Authorisation and Restriction of Chemicals

Dear Sir or Madam,

1. European Union's Restriction of Hazardous Substances (RoHS 2) Directive 2011/65/EU

To the best of our knowledge, from enquiries of our suppliers, none of the above listed 10 substances are present in products manufactured or supplied by meaning at or above 0.1% and cadmium is not present at or above 0.01%. This complies with Directive 2011/65/EU of the European Parliament and of the Council of the European Union with amendment 2015/863/EU.

| Result | Check point | Comment |
|--------|---|--|
| ✓ | Does it have a date? | |
| ✓ | Is it signed by someone knowledgeable? | |
| ✓ | Does it indicate unique reference to the legislation? | |
| ✓ | Does it indicate the list of products? | It refers to "all products". It's too generic, but still acceptable. |
| ✓ | Is compliance status clearly mentioned? | |

VALID

2. EU Regulation (EC) 1907/2006 (REACH):

To the best of our knowledge, from enquiries of our suppliers, none of our products contain more than 0.1% w/w of the substances in the "Candidate List of substances of very high concern for Authorisation" published by the ECHA website on January 15th 2018:
<https://echa.europa.eu/candidate-list-table>

In view of additional substances being identified as SVHCs, our suppliers have been requested to confirm compliance with the current Regulation and to inform us of any changes.

. is not a manufacturer of chemicals and the volume of chemicals imported from outside the EU falls far below the registration requirement of one tonne per annum. Therefore, is exempt from registration.

Yours faithfully,

Quality Manager

The Netherlands

1/1

Suppliers' declaration forms

Good or bad?

IPC 1752: industry voluntary standard for exchanging material declarations along the supply chain.

Materials Declaration Form

| | | | |
|-------------------|-------------------------------------|-----------------|-----|
| IPC | 1752 | Version | 2 |
| Form Type * | Distributors | | |
| Sectionals * | Material Info Manufacturing Info | Subsectionals * | A-D |
| *: Required Field | | | |

| | | | |
|-----------------------------|--|------------------------|-----------------------------------|
| Supplier Information | | | |
| Company Name * | | Response Date * | 2016-03-31 |
| Contact Name * | Refer to Supplier Comment section | | Refer to Supplier Comment section |
| Authorized Representative * | | Representative Title | IPD MD CHAMPION |
| Representative Phone * | Refer to Supplier Comment section | Representative Email * | Refer to Supplier Comment section |
| Supplier Comment | Online Technical Support - STMicroelectronics : http://www.st.com/support/support.html | | |

Uncertainty Statement

While [redacted] has endeavored to provide information which is accurate and up to date, this document and its contents are provided on a strict 'as is' and 'as available' basis. [redacted] disclaims all warranties, express or implied related to this document and its contents, including but not limited to implied warranties of completeness, truth, accuracy, merchantability, fitness for a particular purpose and non-infringement. [redacted] shall have no responsibility and assumes no liability for any cost, loss or damage of any kind which could arise, directly or indirectly, from the use or inability to use this document and/or its contents.

Legal Statement

| | | | |
|-----------------------|------|---------------------|----------|
| Supplier Acceptance * | true | Legal Declaration * | Standard |
|-----------------------|------|---------------------|----------|

Legal Statement

Supplier certifies that it gathered the provided information and such information is true and correct to the best of its knowledge and belief, as of the date that Supplier completes this form. Supplier acknowledges that Company will rely on this certification in determining the compliance of its products. Company acknowledges that Supplier may have relied on information provided by others in completing this form, and that Supplier may not have independently verified such information. However, in situations where Supplier has not independently verified information provided by others, Supplier agrees that, at a minimum, its suppliers have provided certifications regarding their contributions to the part(s), and those certifications are at least as comprehensive as the certification in this paragraph. If the Company and the Supplier enter into a written agreement with respect to the identified part(s), the terms and conditions of that agreement, including any warranty rights and/or remedies provided as part of that agreement, will be the sole and exclusive source of the Supplier's liability and the Company's remedies for issues that arise regarding information the Supplier provides in this form.

| Result | Check point | Comment |
|--------|---|---|
| ✓ | Does it have a date? | |
| ✓ | Is it signed by someone knowledgeable? | |
| ✓ | Does it indicate unique reference to the legislation? | |
| ✓ | Does it indicate the list of products? | Item number matches with the one requested by Omron |
| ✓ | Is compliance status clearly mentioned? | |

VALID

| Product | | | | |
|-----------------|---------------|-----------|----------|------------|
| Mfr Item Number | Mfr Item Name | Version | Mfr Site | Date |
| [redacted] | [redacted] | A | MU1A | 2013-09-14 |
| Amount | UoM | Unit type | | |
| 1073.83 | mg | Each | | |

| QueryList : | RoHS Directive 2011/65/EU-July 2011 - Annex II amended by Directive 2015/863-April 2015 | |
|--|---|----------|
| Query | | Response |
| 1 - Product(s) meets EU RoHS requirement without any exemptions | | FALSE |
| 2 - Product(s) meets EU RoHS requirements except lead in solder and this usage may qualify under the lead in solder '7b' exemption (other selected exemptions may apply) | | FALSE |
| 3 - Product(s) meets EU RoHS requirements by application of the selected exemption(s) | | TRUE |
| 4 - Product(s) does not meet EU RoHS requirements and is not under exemptions | | FALSE |
| Exemption id. | Description | |
| 7a | Lead in high melting temperature type solders (i.e. lead-based alloys containing 85 % by weight or more lead) | |

| QueryList : | REACH-27th June 2018 | | | |
|--|-------------------------|------------------------|-------------|----------------|
| Query | | Response | | |
| 1 - Product(s) does not contain REACH Substances Of Very High Concern above the limits per the definition within REACH | | true | | |
| CategoryLevel_Name | CategoryLevel_Threshold | amount in product (mg) | Application | ppm in product |
| | | | | |

Suppliers' declaration forms

Good or bad?

Date: 03-01-2018

By request

Dear Customer,


Reach – EU Legislation as downstream user of chemicals (Regulation No. 907/2006)

Thank you very much for your enquiry concerning REACH and it's consequence to your business whit We are pleased to inform you as follow:
 We hereby confirm that always follow the latest update according to Regulation No. 1907/2006, an ever-increasing number of SVHC's on the candidate list.
We regularly remind our suppliers to update according to update of SVHC's candidate list.

RoHS – EU Legislation as downstream user of chemicals (Regulation No. 2002/95/EC)

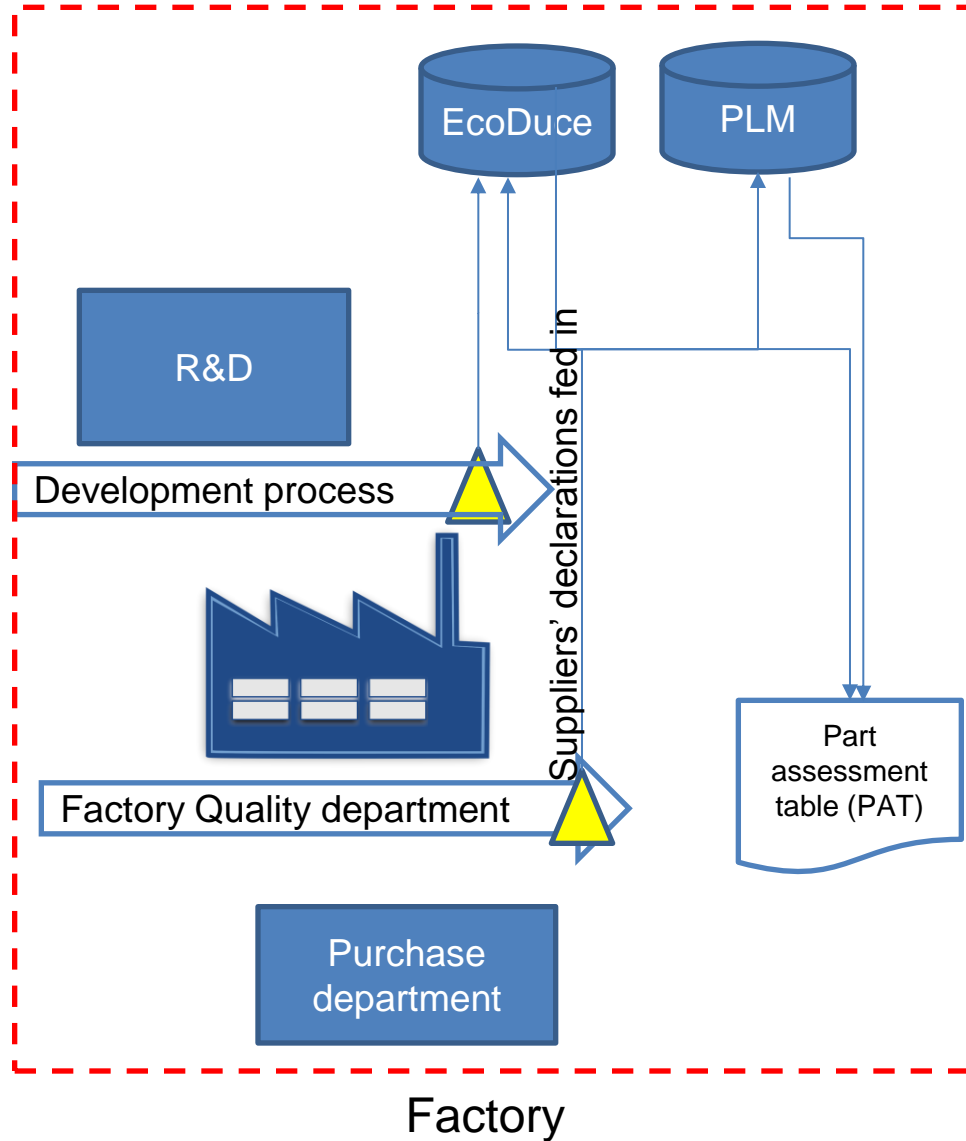
Thank You very much for enquiry concerning RoHS and its consequence to Your business Whit the We are pleased to inform you as follow:
 We hereby confirm that always follow the latest update according to Regulation No. 2002/95/EC

Best regards,

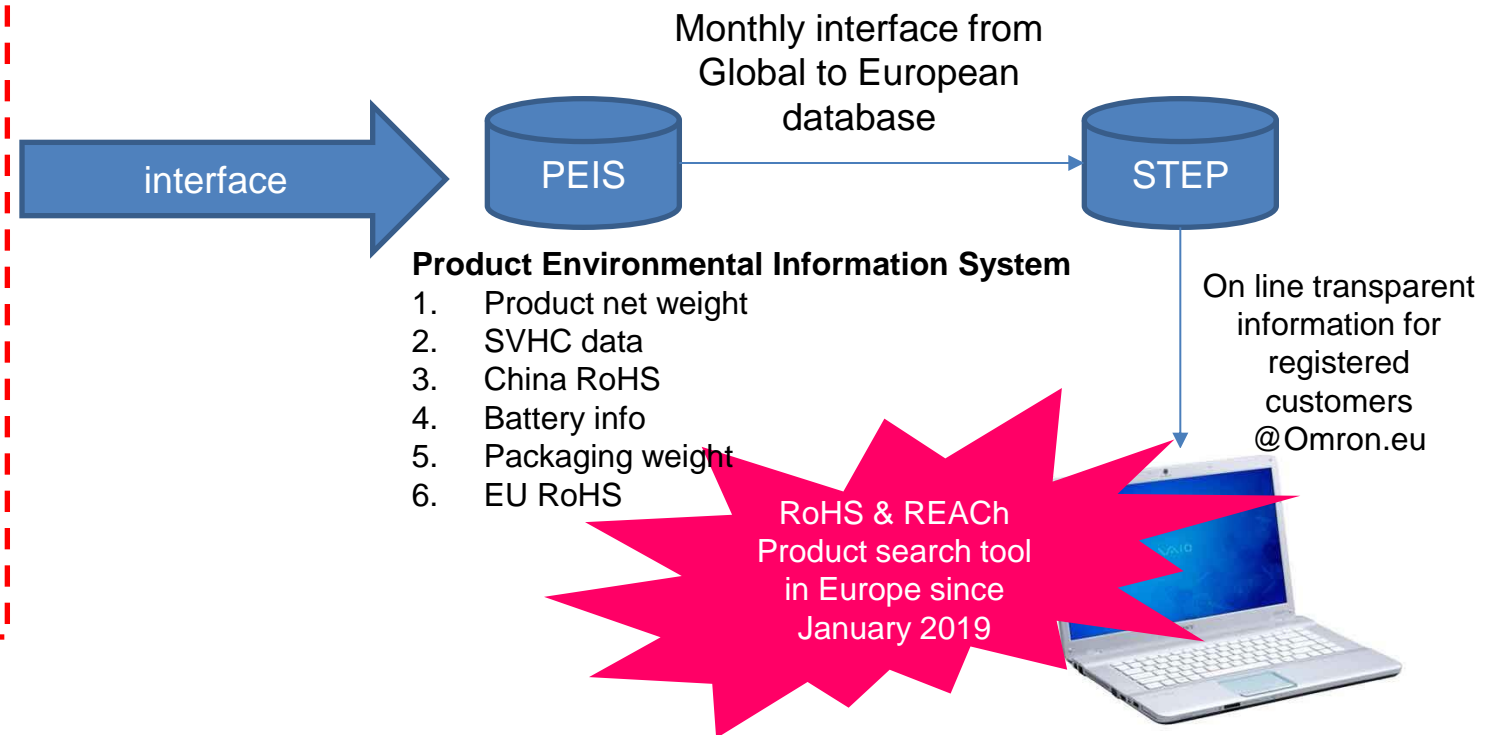

 Quality Manager

| Result | Check point | Comment |
|------------------|---|---|
| ✓ | Does it have a date? | |
| ✓ | Is it signed by someone knowledgeable? | |
| ✗ | Does it indicate unique reference to the legislation? | RoHS reference is to an old legislation |
| ✗ | Does it indicate the list of products? | |
| ✗ | Is compliance status clearly mentioned? | |
| NOT VALID | | |

Dedicated tools and databases



| Explanations of terms | |
|-----------------------|--|
| EcoDuce | It's the software name, it's used for product environmental data management system at the factory |
| PLM | Product Lifecycle Management: managing all data at the factory related to the design, production, support and ultimate disposal of manufactured goods. |
| PEIS | Product Environmental Information System: global database reporting product compliance data. |
| STEP | European level database reporting all the product information relevant for product marketing management |



- Product Environmental Information System**
1. Product net weight
 2. SVHC data
 3. China RoHS
 4. Battery info
 5. Packaging weight
 6. EU RoHS



On line transparent information for registered customers @Omron.eu

Part Assessment Table

Example of Output from Ecoduce and PLM

Report

Parts Table Assessment Result (Report) No. xxxxxxxxxxxxxx

Theme Name: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx

Products Criteria: Global/CP

| | | |
|----------|---------|----------|
| Designed | Checked | Approved |
|----------|---------|----------|

1. Status of A-rank substances (Number of parts)

| | Global/CP criteria | Global/FS criteria | Local/LO criteria |
|---|--------------------|--------------------|-------------------|
| (1) A-rank substances Non-inclusion | 33 | 48 | 48 |
| A-rank Non-inclusion(Normal completion) | 33 | 33 | 33 |
| Investigation Exception(#LN) | 0 | 15 | 15 |
| Investigation Exception(#LR) | 0 | 0 | 0 |
| (2) Investigation Exception(#L/#34L/#40L/#41L) | 34 | 19 | 19 |
| (3) A-rank substances Inclusion | 0 | 0 | 0 |
| (Include Response Reject etc.) | 0 | 0 | 0 |
| A-rank Inclusion (#INCLUDE) | 0 | 0 | 0 |
| Response Reject (#REJECT) | 0 | 0 | 0 |
| Abnormal end (#ABEND) | 0 | 0 | 0 |
| (4) Incomplete Investigation | 0 | 0 | 0 |
| (Include Supplier not set etc.) | 0 | 0 | 0 |
| Supplier not set | 0 | 0 | 0 |
| Uninvestigated | 0 | 0 | 0 |
| Unreceived (under investigation) | 0 | 0 | 0 |
| Approval Reject (under investigation) | 0 | 0 | 0 |
| Approval wait (under investigation) | 0 | 0 | 0 |
| Data incomplete | 0 | 0 | 0 |
| Equivalent part setting error | 0 | 0 | 0 |
| Total | 67 | 67 | 67 |

Judgment result
(Automated judgment)

Exception

Judgment & Comment

Select one of the options below.

I judge that A-rank substances are not contained.

I cannot judge that A-rank substances are not contained. *1

Comment

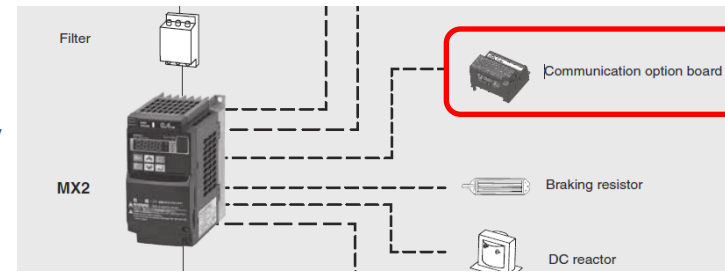
2. Status of A1-rank substances (Number of parts)

| | |
|---|-----------|
| (1) A1-rank substances Non-inclusion | 67 |
| (2) Investigation Exception(#34L/#40L/#41L/#44L) | 0 |
| (3) A1-rank substances Inclusion | 0 |
| (Include Response Reject) | 0 |
| A1-rank Inclusion (#A1INCLUDE) | 0 |
| A1-rank Response Reject (#A1REJECT) | 0 |
| (4) Incomplete Investigation | 0 |
| (Include Supplier not set etc.) | 0 |
| Supplier not set | 0 |
| Uninvestigated | 0 |
| Unreceived (under investigation) | 0 |
| Approval Reject (under investigation) | 0 |
| Approval wait (under investigation) | 0 |
| Data incomplete | 0 |
| Equivalent part setting error | 0 |
| Total | 67 |

Judgment result
(Automated judgment)

A1-rank Non inclusion

Date for eliminating A1-rank substances
(When Judgment result is not "A1-rank Non-inclusion", writing is mandatory)



Communication Option Board

Product Environmental Info

| SVHC content info. | | | | | | | | | | China RoHS OX Display | | | | | | | |
|--------------------|------------------|-----------------|------------------|-------------------|-----------------|---|-------------|-------------------|-----------------|-----------------------|----|----|-------|-----|-------|---------------------------------|---------------------|
| Weight (g) | Contained or Not | SVHC0 1 (%) DBP | SVHC0 2 (%) DEHP | SVHC0 3 (%) HBCDD | SVHC0 4 (%) BBP | SVHC05 (%) Hexachloroethane, phthalic anhydride | SVHC0 6 (%) | SVHC0 7 (%) EGDME | SVHC Others (%) | Pb | Hg | Cd | Cr6 + | PBB | PBD E | Environment-friendly use period | Packaging materials |
| 12.0 | 0 | | | | | | | | | X | 0 | 0 | 0 | 0 | 0 | 10 | Paper |

Detailed table

| PTA Result (Collective Table) | | | | | | | | | | | | | | | | | | | | | | | |
|--|----------------------|------------------|-----------------------|---------------------------------|-----------------|------------------------|---------------------|-----------------------------|-------------------------|--------------|----------------|------------------|----------------------------|-----------------------|--------------------|--------------------|-------------------|--------------------|--------------------|---------------|---------------|----------|------------------------|
| Theme Name: xxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | | | | | | | | | | | | | | | | | | | | | | | |
| Parts Info. | | | | | | | | | | | | | | Supplier Info. | | Judgment result | | | Content data | | | | |
| Parts Number | Parts classification | Parts name | Parts name (Alphabet) | Parts name (Japanese syllabary) | Form/Material | Specification/Exterior | Maker name/Use form | Identification section code | Standardized goods code | Parts status | Unit of number | Summation object | Top priority supplier code | Top priority supplier | Global/CP criteria | Global/FS criteria | Local/LO criteria | A1-rank substances | A1-rank substances | | | | |
| 0195466-3 | PCB 3G3AX-MX2-DR | PCB(OEM) | PCB(OEM) | PCB(OEM) | PCB 3G3AX-MX2 | PCB 3G3 | WN-E | 3 | 20151105 | pcs | - | - | - | - | EX | Exception | OK | OK | OK | Non-inclusion | | | |
| 1111890-4 | PCB MX2-CONNECT | PCB(OEM) | PCB(OEM) | PCB MX2-CONNECT | PCB MX2-CONNECT | PCB MX2 | WN-E | 3 | 20151105 | pcs | - | - | - | - | EX | Exception | OK | OK | OK | Non-inclusion | | | |
| 1155917-4 | WJ-DN | CONTROL UNIT | WJ-DN | WJ-DN | MOTION CONTR | WJ-DN | WN-E | 3 | 20151105 | pcs | - | - | - | - | EX | Exception | OK | OK | OK | Non-inclusion | | | |
| 1155584-7 | CPU ASSY BYH0E OM | CPU ASSY(OMN) | CPU 775-(OMN) | CPU 775-(OMN) | FLASHED ON CHE | 3G3AX-N | WN-E | 3 | 20151105 | pcs | Yes | 0196504 | OMRON MANUFACTUR | EX | Exception | OK | OK | OK | OK | Non-inclusion | | | |
| 1155590-7 | LBL AS 3G3AX-MX2 | LABEL ASSY(PACK) | 3G3AX-MX2 | 3G3AX-MX2 | 3G3AX-N | WN-E | 3 | 20151105 | pcs | - | - | - | - | EX | Exception | OK | OK | OK | Non-inclusion | | | | |
| 1155531-A | CABLE OMN. | CABLE (OMN) | 9-7-1(OMN) | CABLE 460RM | CABLE 460RM | 3G3AX-N | WN-E | 3 | 20151105 | pcs | Yes | 90EN003 | DeKave BV | EX | Exception | EX | EX | EX | Exception | OK | Non-inclusion | Received | REQ000374 JGP Ver 4.31 |
| 1111890-A | CASE BOTTOM MX2. | CASE | *** | MX2 BOTTOM CA | MX2 BOTTOM CA | MX2 BOT | WN-E | 3 | 20100205 | pcs | Yes | 90EN010 | Technique Plastique B | EX | Exception | EX | EX | EX | Exception | OK | Non-inclusion | Received | REQ000377 JGP Ver 4.31 |
| 1111889-A | CASE TOP MX2. | CASE | *** | MX2 TOP CASE | MX2 TOP CASE | MX2 TOR | WN-E | 3 | 20100205 | pcs | Yes | 90EN010 | Technique Plastique B | EX | Exception | EX | EX | EX | Exception | OK | Non-inclusion | Received | REQ000377 JGP Ver 4.31 |
| 4369493-A | CASE,PACK. T3I-MC | CASE,PACKING(C | 9-1J117(OMN) | B-KK6712 | PRINT-OMRON BE | T3I-MC | WN-E | 3 | 20151105 | pcs | Yes | 90EN010 | Smurfit Kappa Vandro | EX | Exception | OK | OK | OK | OK | Non-inclusion | | | |



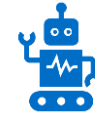
RoHS & REACh Product Search Tool

Better service to our customers by automating product compliance

RoHS & REACH product search tool

Live from December 2018!

2,800 downloads up to now
≈100 downloads per week
190 customers from all EU



We automate the product compliance!

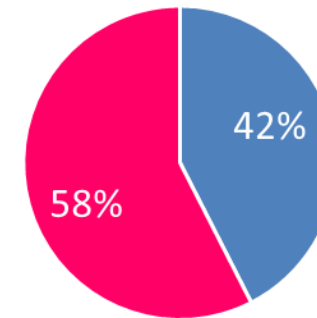
On line declarations immediately available, from everywhere, every moment.



How to access

- This tool is accessible by every registered user.
- All downloaded declarations tracked automatically, based on type of declaration, product name, customer name, date.

Downloaded declarations type



■ REACH ■ RoHS



Tangible Product Compliance improvements support the business!



Conclusions

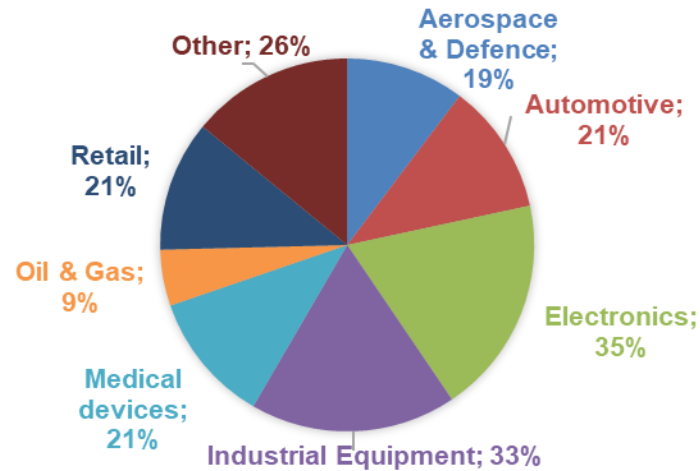
- Typical product compliance costs
 - Key messages for today

Typical product compliance costs

Source: THE STATE OF COMPLIANCE 2019, by NATALIE PICOT (MBA), Executive Sponsor: Assent Compliance

Who

239 responses from verified participants, compliance industry experts working in any capacity of supply chain data collection worldwide.



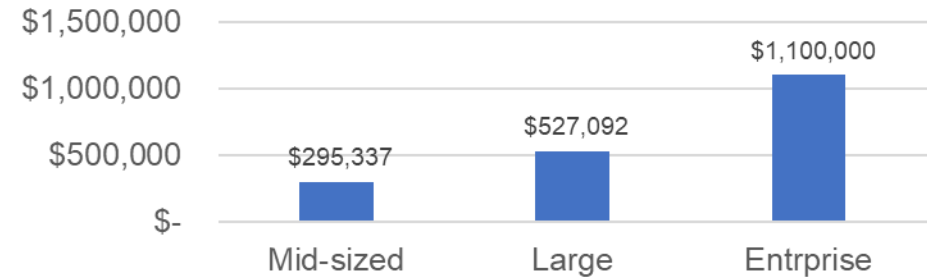
Main Highlights

There is a significant gap in the availability of compliance industry data in the market today.

Companies need to evaluate methods to manage increasing regulatory pressures.

Costs of compliance

Average true cost of compliance



Companies do not understand the true cost of compliance.

The biggest costs associated with enterprise can be attributed to:

- Greater regulatory scrutiny as public companies (subjected to ESG metrics).
- Supply chain complexity.

The cost formula includes full-time equivalent (FTE) for tasks related to:

1. Design/governance processes.
2. Investment in tools.
3. Supplier engagement.
4. Data governance.

For the second year, there have been increases in the time spent on compliance, due to increase in regulatory demand.

Companies expecting to spend an average of 16 to 25 percent more by 2022.

Key messages for today



Supply chain collaboration is key.
We need supplier's data to fulfill our own RoHS requirements.



Still "good" and "bad" suppliers.
There is a significant gap in the availability of compliance industry data in the market today.



Internal Risk mitigation countermeasures not always sufficient.

- Training suppliers by ourselves
- Agreeing with suppliers a roadmap to fill in the gaps
- Stop sourcing and change of supplier
- Conducting lab tests

Spread the voice



Thanks to ANIE for organizing such kind of seminars: information campaigns within industry would help a lot downstream companies to ensure correct communication of chemicals into products to the users.





