

Management Standards on Chemical Substances

ver. 4.0

1. Objective

This document provides standards for controlling chemical substances contained in products or secondary supplies that are covered by the separately stipulated "Green Procurement Guidelines (for Products and Secondary Supplies)."

2. Scope

- (1) Products and accessories we procure from suppliers for selling purposes (including added secondary supplies)
 - (2) Secondary supplies added by outsource contractors to products to be sold by the Ryoyo Group
- * Management standards of customers of Ryoyo Group or laws and regulations of delivery countries might be applied as a priority by the product (including secondary supplies) property, the usage, and the destination, etc.

3. Chemical substances to be managed

Ryoyo-defined chemical substances are classified into "**IEC62474*-related substances** and **Others**".

However, management standards of customers of Ryoyo Group are applied as a priority.

*IEC62474 : Material declaration standard for products of and for the electrotechnical industry

(1) IEC62474-related substances

IEC62474-related substances are required to be grasped the content and reported when requested.

IEC62474-related substances are contained in IEC62474 "Declarable Substances".

"Declarable Substances" URL: <http://std.iec.ch/iec62474>

Management level of each substrate (prohibition, control, threshold level, and so on.) should be complied with applied laws and regulations.

*The chemical substances restricted by " RoHS (EU DIRECTIVE 2011/65/EU)" can be used in the usage provided for by the RoHS exemption.

*Secondary supplies added to products by suppliers must comply with the " EUROPEAN PARLIAMENT AND COUNCIL DIRECTIVE 94/62/EC on packaging and packaging waste" (requiring that the total content of lead, cadmium, mercury, and/or hexavalent chromium must be less than 100 ppm).

(2) Other substances

- Any substance except for "IEC62474-related substances"
- Substances contained in laws, regulations or Management standards of customers of Ryoyo Group. They required to be managed in accordance with the following table.

Table 1 List of Other substances

No	Substance Group Name	Managed Objects	Criteria	Referenced Laws/Regulations
1	Red phosphorus	Flame retardant application in the resin	Comply with customer requirement (prohibition or control)	Customer requirement
2	EU REACH regulation SVHC*	Article	Report content when exceed 1000ppm in articles	EU REACH regulation

*The latest REACH SVHC List

<https://echa.europa.eu/candidate-list-table>

4. Contact Information for Inquiries

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5. Establishment and Revision History

Date	Ver.	Revised Contents
February 1, 2013	ver.1.0	Established. “Management Standards on Environment-affecting Substances” was renewal.
December 1,2016	ver.2.0	Change of controlled substances and contact information.
May 1,2018	ver.3.0	Change of contact information.
September 11,2018	ver.4.0	Change of link and contact information.

Documentation is available for download from the following address:

Japanese, English and Chinese

<https://www.ryoyo.co.jp/corporate/csr/c-control>

Reference : The example of IEC62474 related substances

Substance Group Name
Asbestos
Azocolourants and azodyes which form certain aromatic amines
Polychlorinated Biphenyls (PCBs) and specific substitutes
Polychlorinated Terphenyls (PCTs)
Dibutyltin (DBT) compounds
Diocetyl tin (DOT) compounds
Polychlorinated Naphthalenes (PCNs)
Cadmium/Cadmium compounds
Lead/Lead Compounds
Chromium (VI) Compounds
Mercury/Mercury Compounds
Specific brominated flame retardants (PBB, PBDE)
Hexabromocyclododecane (HBCDD)
Brominated flame retardants (other than PBBs, PBDEs, or HBCDD)
Chlorinated Flame Retardants (CFR)
Alkanes, C10-13, chloro (Short Chain Chlorinated Paraffins)
Fluorinated Greenhouse Gases (PFC, SF6, HFC)
Ozone Depleting Substances (CFC, Halon, HBFC, HCFC & others)
Phthalates (BBP, DBP, DEHP, DIDP, DINP, DNOP)
Perchlorates
Radioactive substances
Tri-substituted organostannic compounds
Aluminosilicate Refractory Ceramic Fibres
Zirconia Aluminosilicate Refractory Ceramic Fibres
Perfluorooctane sulfonates (PFOS)
Perfluorooctanoic acid (PFOA) and individual salts and esters of PFOA
Perfluorononan-1-oic-acid and its sodium and ammonium salts
Hexahydromethylphthalic anhydride
Disodium tetraborates , anhydrous
4-Nonylphenol, branched and linear, ethoxylated

*The list above is just an example.

Please confirm “Declarable Substances” (<http://std.iec.ch/iec62474>).