

## Case Study

Cases that may occur in any stage of our supply chain are:

### Purchasing stage

A part and component has been changed without confirmation of whether restricted chemical substances are included or not, which has caused contamination of the restricted chemical substances into the products. (Insufficient change management)

### Manufacturing stage

In a factory having parallel productions, products have been contaminated with restricted chemical substances.  
 (1) Insufficient cleaning of the facilities (Insufficient change management)  
 (2) Incorrect use of parts and components containing restricted chemical substances. (Insufficient identification management)

### Delivery stage

Delivery of wrong parts and components containing restricted chemical substances. (Insufficient identification management)

Effective method for prevention of contamination by admixture of restricted chemical substances is to thoroughly conduct change management and identification management in all the companies comprising the supply chain.

All the companies are requested to:

- Establish own management system of chemical substances in accordance with “Guidelines for Management of Chemical Substances in Products”
- Check the management system of chemical substances at the suppliers of high risk parts and components in accordance with “Guidelines for Management of Chemical Substances in Products”
- Enlighten many of the related parties including your suppliers so that appropriate management of chemical substances in products will be conducted in all the companies comprising the supply chain.

## Reference documents helpful for establishment of management system of chemical substances

- “Guidelines for Management of Chemical Substances in Products (Ver. 3.0)” can be downloaded from the below mentioned URL of Joint Article Management Promotion-consortium (JAMP).  
 -URL: <http://www.jamp-info.com/english>
- Suppliers to Panasonic group are requested to also refer to “Supplier’s Self-audit Manual” and checklist provided from Panasonic group facilities.

## All the companies in our supply chain are requested to establish “Management System for Chemical Substances in Products”

- Prevention of contamination by admixture of substances restricted to be used in products!
- Timely provision of the information of chemical substances in products!

(Note) “Products” shall mean raw materials, parts and end products to be delivered to customers by each company.

## Why is management required for chemical substances?

- Chemical substances are indispensable for our life, and, at the same time, could be hazardous and harmful. Chemical substances, if used in an incorrect manner, may cause harmful effects on humans or environments.
- It is important to conduct appropriate management of chemical substances at each stage of product manufacturing, use and disposal, and prevent any problem in advance.
- It is globally required to prevent contamination of specific chemical substances into own products and to acknowledge what kind of chemical substances are contained with how much amount, then to transfer and provide such information appropriately. Typical regulations includes EU RoHS Directive, EU REACH regulation, etc.

## Chemical substance management is a passport to join a supply chain

- In order to fulfil above mentioned requirements, all the companies comprising a supply chain need to establish an appropriate management system of chemical substances and carry on the management thereof. It can be said that chemical substance management has become a passport to join a supply chain.

## The aim of this brochure

- In accordance with “Guidelines for Management of Chemical Substances in Products (3<sup>rd</sup> edition)” issued by Joint Article Management Promotion-consortium (JAMP), this brochure summarizes the points useful for prevention of the contamination by admixture of restricted chemical substances into products and timely provision of the information of chemical substances in products.
- It is expected that this brochure will help all the companies comprising our supply chain to set about the establishment of management system for chemical substances.

# Let's establish management system of chemical substances in products in all the companies comprising our supply chain!

- Not only establish own management system of chemical substances in products, but also request suppliers to do the same and check the status of the establishment thereof.
- Furthermore, explain to the suppliers that, with a chain of such a request, we aim to establish management system of chemical substances in products in our supply chain as a whole, and request them to repeat the same approach to upstream suppliers as well.

## How to prevent contamination by admixture of restricted chemical substances in products?

First of all, understand parts and components and production process which are likely to involve contamination.

- Generally, parts and components which are likely to involve contamination include plating materials, solder, molded articles, paints, inks, etc.
- Furthermore, production process which is likely to involve contamination includes parallel production (see below mentioned "One-point"), a process with insufficient identification management or change management, etc.

Next, acknowledge the risk of contamination that may occur in your company and the supply chain, and improve it.

- Acknowledge if there is any part or component or production process which are likely to involve contamination not only in your company but also in the upstream supply chain.
- Using Audit check sheet, etc., management system needs to be checked at suppliers who have parts and components where contamination is likely to occur, or at own company or suppliers who have production process which is likely to involve contamination.
- Nonconformity points judged in Audit check sheet need to be improved.

## What is timely provision of the information of chemical substances in products?

- Prepare the information of chemical substances contained in products through methods with scientific grounds. ("Methods with scientific grounds" shall mean, for instance, methods based on the knowledge of composition change or concentration change generated when chemical products are transformed into a molded article and knowledge of manufacturing method and principle.)
- Such information of chemical substances as required by related parties including customers needs to be submitted as a general rule.
- In case the submitted information of chemical substances has been altered due to revision of regulations, etc., new information of chemical substances need to be provided in a timely manner.

- ✓ It is important to acknowledge the necessity to provide the information of chemical substances as well to the customers.
- ✓ Furthermore, in order to avoid discrepancies between the submitted information of chemical substances and actual measurement data, it is essential to establish management system of chemical substances in products at own companies and upstream suppliers in the supply chain.

## Check management system at your own company.

- Is the management criteria for chemical substances in products clarified?
- Have you obtained all the necessary information of chemical substances in products?
- Do you have a system ready to provide timely information upon the customers' request?
- Is any measure taken to prevent incorrect use or contamination by admixture of chemical substances regulated by the management criteria for chemical substances in products?
  - Have you acknowledged where to locate parts and components such as plating material or solder, or production process such as parallel production which are likely to involve contamination?
  - If you separate places to store parts and components including restricted chemical substances in products, work in progress, and end products, and make identification description?
  - Is it clarified what action to take when change is made for parts and components, suppliers, production conditions, facilities, etc.
- Is the status of operations of management system of chemical substances in products checked at intervals prescribed?

### One-point Parallel production means:

The situation where, in any process between receipt of parts and components and product delivery, production using parts and components without restricted chemical substances contained and production using parts and components with restricted chemical substances are conducted in the same building.

## Check management system at suppliers.

- Have you requested your suppliers to establish and operate a system to manage chemical substances in products?
- Do you check the status of management of chemical substances in products at suppliers periodically as required?
- Do you check whether suppliers acknowledge if there is any part or component or production process which might involve contamination by admixture of restricted chemical substances as specified in management criteria?
- Do you acknowledge if your suppliers have requested their upstream suppliers of parts and components to establish and operate management system of chemical substances in products?

