

SMC's Activities for Green Procurement Guide for SMC's Environmentally Friendly Products



**I LOVE
THE EARTH
I LOVE
GREEN PRODUCTS**

SMC's symbol for green procurement

SMC's mission recognizes that the conservation of the earth's environment is one of the most important challenges facing human beings and that its contribution is to develop and supply environmentally friendly products.

EU directives

Following the announcement of the latest EU (European Union) directive on environmentally harmful substances, customers requesting Green Procurement options has increased substantially.

WEEE directive

Waste Electrical and Electronic Equipment
 * Directive for collecting and recycling electrical and electronic equipment waste

RoHS directive

The Restriction of the use of certain Hazardous Substances in electrical and electronic equipment
 * Directive for restricting 6 specific substances contained in electrical and electronic equipment
Mercury, Lead, Cadmium, Hexavalent Chromium, PBB, and PBDE

RoHS directive

The RoHS directive compels EU membership countries to abolish or reduce the use of heavy metals such as mercury, lead, cadmium and hexavalent chromium as well as bromic fire retardants such as PBB and PBDE by June 30, 2006.

Although industrial products, including pneumatic products, are not subject to WEEE & RoHS directives, SMC nonetheless strives to meet the needs of our customers.

February 2003 RoHS directive proclamation

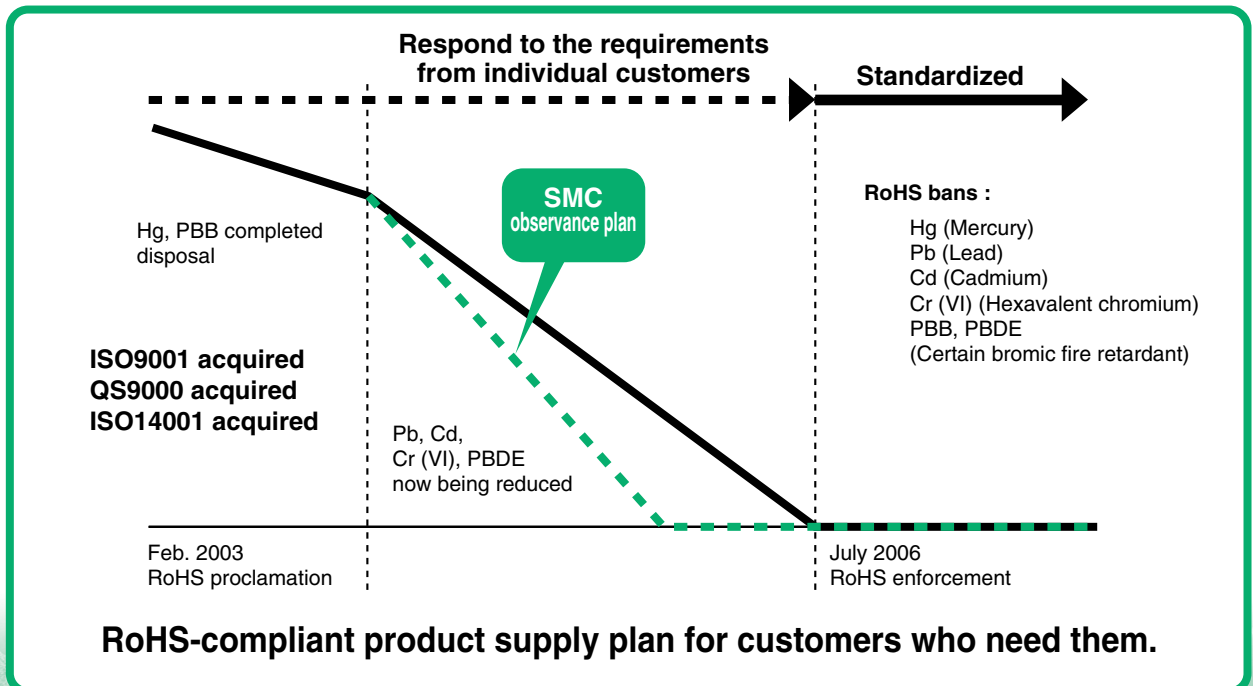


July 2006 RoHS directive enforcement

The sale of products containing environmentally hazardous substances subject to the RoHS directive will be prohibited in the EU.



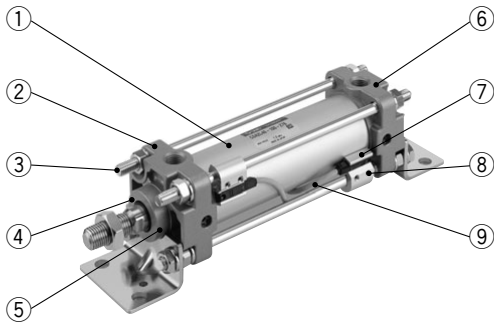
SMC's Product Supply Plan Based On the RoHS Directive



Please consult us when the products containing environmentally hazardous substances out of the scope of the RoHS directive or domestic legal requirements, etc. are required.

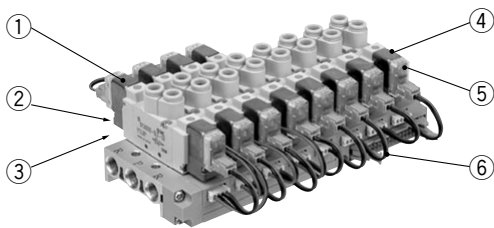
Green Changes

Air cylinder



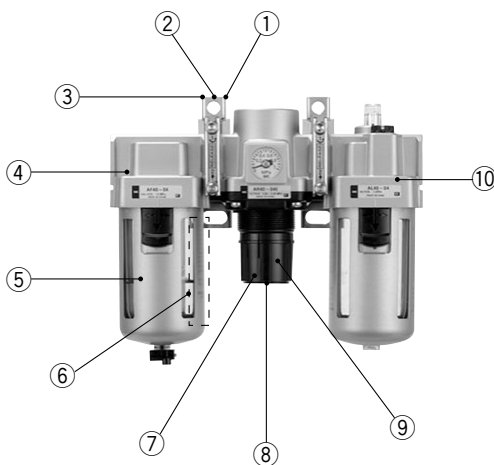
No.	Parts name	Environmentally harmful substance	Changes
①	Piston	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
②	Spring washer	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
③	Tie-rod	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
④	Rod cover	Hexavalent chromium contained in surface treatment of coating bed	Changed to hexavalent chromium-free surface treatment
⑤	Bushing	Lead exceeding material standard	Changed to lead-free material
⑥	Head cover	Hexavalent chromium contained in surface treatment of coating bed	Changed to hexavalent chromium-free surface treatment
⑦	Auto switch	Lead contained in parts and soldering	Changed to lead-free parts and soldering
⑧	Mounting screw	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium free surface treatment
⑨	Lead wire	Lead contained in coating material	Changed to lead-free material

Solenoid valve



No.	Parts name	Environmentally harmful substance	Changes
①	Body	Hexavalent chromium contained in surface treatment of coating bed	Changed to hexavalent chromium-free surface treatment
②	Spool	Lead exceeding material standard	Changed to a lead reduced material
③	Insert nut	Lead exceeding material standard	Changed to lead-free material
④	Print circuit board	Lead contained in parts and solder	Changed to lead-free parts and soldering
⑤	LED	Arsenic contained in semiconductor parts	Currently no change
⑥	Lead wire	Lead contained in coating material	Changed to lead-free material
	Set screws	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment

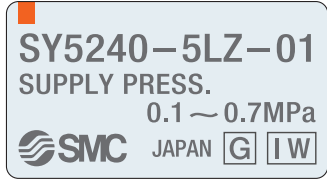
FRL (combination unit)



No.	Parts name	Environmentally harmful substance	Changes
①	Bracket; spacer bracket	Hexavalent chromium contained in treatment after plating	Changed to hexavalent chromium-free treatment after plating
②	Retainer; Spacer bracket	Hexavalent chromium contained in treatment after plating	Changed to hexavalent chromium-free surface treatment after plating
③	Spacer; spacer bracket	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
④	Body of filter, regulator, lubricator	Hexavalent chromium contained in surface treatment of coating bed	Changed to hexavalent chromium-free surface treatment
⑤	Bowl guard of filter, lubricator	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
⑥	Bowl guard printing of filter, lubricator	Lead and hexavalent chromium contained in ink	Changed to lead and hexavalent chromium-free ink
	Pressure gauge	Solder for the leads of the Bourdon's tube	Changed to lead-free soldering
⑦	Tap tight screw for pressure gauge, bonnet mounting	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
⑧	Valve	Lead contained in adhesive for rubber lining	Changed to lead-free adhesive
	Adjusting screw assembly	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
	Cover adjusting spring	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
⑨	Diaphragm holder; diaphragm assembly	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
	Diaphragm seat; diaphragm assembly	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface treatment
⑩	Damper holder of lubricator	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface
	Tap tight screw for assembly	Hexavalent chromium contained in surface treatment	Changed to hexavalent chromium-free surface



Identification of Green Products

	RoHS compliant products
Part no.	Standard part no.
Product identification	Add [G] next to lot no. on product label
(Samples of label)	

We will also identify environmentally-friendly products by changing the package color, and affixing the SMC symbol for RoHS compliance to the carton.

Packaging color, blue, etc.

Symbol



Request for Changing to Green Products

Because of potential lead-time problems which could affect our customers, environmentally harmful components will be gradually replaced by “Green alternatives” on a part-by-part basis until all existing component stocks have finally been exhausted.

Where possible, we will advise and seek approval from our customers before changing component parts containing environmentally harmful substances.

We really appreciate your understanding and co-operation.
Please contact your SMC sales representative for more details.



SMC Future Action

Customer satisfaction will be enhanced by promoting our commitment to environmentally friendly products.

Thoroughly promote Green Products
Satisfy RoHS, regulation and market needs



Compliant with the varying RoHS directive.

Enforce Life Cycle Assessment (LCA)

Reduce environmentally harmful substances in materials and products from use to disposal.

Enforce whilst considering the market needs



Re-affirm our customer satisfaction

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