

UNIFE fact sheet: China RoHS 2 Legislation

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CONTENT:

This UNIFE factsheet sets out to what extent products from its member companies come within the scope of the Chinese Regulation "Measures for the Administration of the Restricted of the Use of Hazardous Substances Contained in Electrical and Electronic Products (EEP)" hereafter referred to as the "Measures" or "China RoHS 2". It is assumed that the reader has an awareness of the content of the previous legislation "Measures for the Control of Pollution from Electronic Information Products", otherwise known as "China RoHS".

The objectives of this Regulation are to:

- control and reduce the contamination to environmental;
- promote cleaning production and comprehensive utilization of natural resources;
- encourage green consumption;
- protect environment and human being health.

Information about the Regulation

Compared to the legislation from 2006, the new 2016 version has made the following main changes:

- Product scope extended: 10 kinds of electronic information products changed to electrical and electronic products, but "except for the equipment involved in the electricity generation, transmission and distribution";
- "Pollution control" changed to "restriction of the use of hazardous substances";
- Scope of restricted substances enlarged: "lead, mercury, cadmium, hexavalent chrome" were changed to "lead and its compound; mercury and its compound; cadmium and its compound; hexavalent chromium compound";
- The additional provisions about the scientific and financial support policies;
- "The key management catalogue for pollution control of electronic information products" changed to "Compliance Management Catalogue for the restriction of use of hazardous substance of EEP";
- Products listed in the "Compliance Management Catalogue" must be managed according to the Conformity Assessment System for the restriction of use of hazardous substances in EEP.

Relevance for Rail vehicles / Rail systems (according to MIIT FAQ 14 as translated by the SESEC)

A - FAQ 14: "The electrical transportation machine and tools are not electrical and electronics products. So they are not under the scope of administration of the Measures."

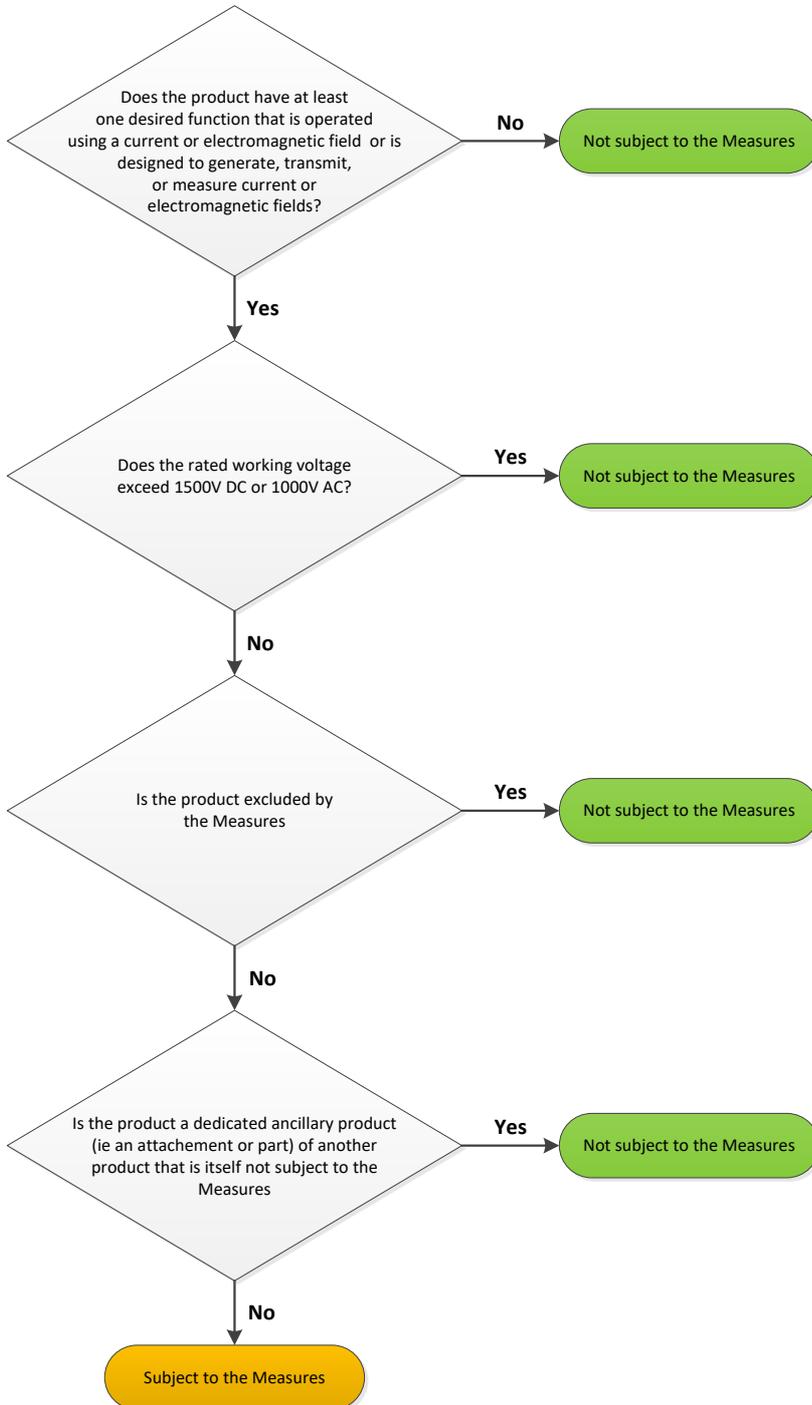
This means that Electrical and Electronic Products within Rail vehicles and Rail systems are exempted from the scope of the Chinese Regulation "Management Method for the Restriction of the Use of Hazardous Substances in Electrical and Electronic Product" (China RoHS2).

Rail Industry Commitment

UNIFE members have already gone beyond legal obligations and developed a hazardous substances limitation strategy that covered the hazardous substances as controlled by both EU-RoHS2 and China-RoHS2. These are voluntary limitation actions and the corresponding strategies are harmonized in the rail sector by UNIFE.

As far as lead in solder is concerned, the transition to lead-free soldering is complex and many different ways exist to achieve the technology shift. In safety critical applications, UNIFE member companies will introduce new technologies with care and taking into account the high reliability and safety requirements.

How to judge if a product is within the scope of China RoHS 2



Electrical and Electronic Products (EEP) in scope

1. Communication equipment, fixed or mobile
2. Professional broadcast and TV equipment
3. Computer and office equipment
4. Household appliances
5. Electronic instruments for monitoring and control applications
6. Industrial electrical and electronic equipment, including monitoring and control equipment
7. Power tools
8. Medical electronics and devices
9. Lighting products, including electric light sources (lamps) and luminaires
10. Sports and entertainment products

Electrical and Electronic Products which are generally exempted from China RoHS2

- Equipment concerning electric energy production, transmission and distribution: power plant, power transmission and distribution plant, system and equipment for power supply and distribution in buildings;
- Electronic equipment for military use;
- Electrical and electronic equipment for special environment or extreme environment;
- Electrical and electronic equipment for exporting outside China;
- Temporarily imported electrical and electronic equipment or that for maintenance;
- Prototype for research and development or testing;
- Samples and display products for exhibition but not for sale.

When stating that a product is not within the scope of China RoHS 2, it is the responsibility of individual companies to evaluate their product, record the assessment, and be able to provide this as evidence to the appropriate authorities if required.

Compliance Management Catalogue:

The Measures specify a catalogue of product groups and the specific requirements these products must fulfil.

China RoHS2 Compliance Management Catalogue
(Version from Nov. 2016)

1.	refrigerator
2.	air-conditioner
3.	extractor hoods
4.	washing machines
5.	electric water heaters
6.	gas water heaters
7.	printers
8.	copy machines
9.	fax machines
10.	TVs
11.	monitors
12.	microcomputers
13.	mobile phones
14.	phone sets

Products included in the Catalogue must fulfill the following requirement regarding:

- Maximum Concentration Values;
- Use of Restricted hazardous substance classes;
- Restricted use times;
- Conformity Assessment System.

Maximum Concentration Values:

The Maximum Concentration Values (MCV) in homogeneous material
(according to GB/T 26572 -2011)

1.	Lead and its compounds	0.1% (M/M)
2.	Mercury and its compounds	0.1% (M/M)
3.	Hexavalent chromium compounds	0.1% (M/M)
4.	Polybrominated biphenyls (PBB)	0.1% (M/M)
5.	Polybrominated biphenyl ethers (PBDE)	0.1% (M/M)
6.	Cadmium and its compounds	0.01% (M/M)

Implementation Steps

A. Marking of Electrical and Electronic Products of their hazardous substances information

Label 1 (according to SJ/T 11364-2014):

- “e” stands for “electrical,” “electronic” and “environmental,” signifying a green and environmental electronic and electrical product
- Arrows demonstrate that the EEP can be recycled
- The entire label indicates that this EEP does not contain any hazardous substances and is a green environmentally friendly product, which can be recycled after being discarded and should not be casually discarded



Label 2 (according to SJ/Z 11388-2009):

- The replaceable number indicates the environmental protection use period
- Arrows demonstrate that the EEP can be recycled
- The entire label indicates that this EEP contains certain hazardous substances and can be used safely during its environmental protection use period and should enter into the recycling system after its environmental protection use period



B. Declaration of conformity regarding restriction of hazardous substances

Table 1 Marking Styles for the Names and Contents of the Hazardous Substances

Part Name	Hazardous Substances					
	Lead (Pb)	Mercury (Hg)	Cadmium (Cd)	Hexavalent Chromium (Cr (VI))	Polybrominated biphenyls (PBB)	Polybrominated diphenyl ethers (PBDE)

This table is prepared in accordance with the provisions of SJ/T 11364.

O: Indicates that said hazardous substance contained in all of the homogeneous materials for this part is below the limit requirement of GB/T 26572.

X: Indicates that said hazardous substance contained in at least one of the homogeneous materials used for this part is above the limit requirement of GB/T 26572.

(Enterprises may further provide in this box technical explanation for marking “X” based on their actual circumstances.)

Definitions:

- “Electrical and Electronic Products (EEP)” means equipment and auxiliary products are dependent on electric currents or electromagnetic fields in order to work properly and equipment for the generation, transfer and measurement of such currents and fields, and equipment designed for use with a voltage rating not exceeding 1000 Volt for alternating current and 1500 Volt for direct current, except for equipment involved in electricity generation, transmission and distribution.
- "Homogeneous Material" means either one material of uniform composition throughout or a material, consisting of a combination of materials that cannot be mechanically disjointed into different materials, meaning that the materials cannot be separated by mechanical actions such as unscrewing, cutting, crushing, grinding and abrasive processes.