

China RoHS label



When does the China RoHS label apply?

China has enforced a measure **R**estricting the use **of H**azardous **S**ubstances (**RoHS**) in electronic equipment and the measure can in many ways be compared to the European RoHS requirements. However key differences exist between the 2 measures and compliance with one does not mean compliance with the other.

Formally known as the "administration measure on the control of pollution caused by electronic information products" the measure is commonly referred to as the China RoHS and has been in effect since March 2007. The measure applies broadly to Electronic Information Products (EIP) which are maintained in a RoHS catalogue by the Ministry of Industry and Information Technology (MIIT). The catalogue currently contains more than 1800 products, summarised in the following categories:

Summary of the main RoHS catalogue					
1. Radar equipment products	includes airborne and ship borne radar				
2. Communication equipment products	e.g. transmitters, navigation, telephones, base stations				
3. Broadcast television equipment products	transmitters, camcorders, antennas				
4. Computer products	all types of computers, network equipment, printers, power supplies, CDs, toner cartridges,				
5. Household electronic products	etc. TV, DVD, video tapes, CDs, etc.				
6. Electronic measurement instrument products	test equipment, meters, etc.				
7. Electronic products for professional use	soldering tools, electric and air tools				
8. Electronic components	passives, PCBs, sensors, connectors, switches, loudspeakers, electronic devices (vacuum tubes, diodes, semiconductors, ICs, electronic circuits, wire and cables, lamps and batteries)				
9. Electronic application products, electronic material products, etc.	household equipment (games, microwave ovens), medical devices				
*Source: - SI/T 11363-2006 "Requirements for concer	ntration limits for certain hazardous substances in				

*Source: - SJ/T 11363-2006 "Requirements for concentration limits for certain hazardous substances in electronic information products"

The China RoHS label is mandatory for products listed in the main catalogue and is based on self-declaration by the manufacturer. The 6 hazardous substances are identical to the European RoHS but are still allowed. Currently no Chinese RoHS testing is required - pre-market control is conducted by the competent Chinese authorities.

Besides the main catalogue listed above, the MIIT is preparing a **key catalogue** that will list products for priority enforcement (catalogue for priority prevention of pollution from electronic information products). Products listed in the key catalogue are subject to substance restriction requirements and testing will be integrated in the China Compulsory Certification scheme (CCC). On October 2009, the MIIT published a first draft of the key catalogue for public consultation, identifying 3 product categories, including *mobile user terminals, telephones, and printers linked to computers*. However, to this date the key catalogue is yet to be enforced. There is no formal date set for enforcement of the key catalogue.



What are the technical requirements?

The China RoHS is subject to 3 main mechanisms to control the use of hazardous substances in identified products, namely standards, the product catalogue and substitution materials.

Maximum concentration levels are stipulated in SJ/T 11363-2006 "requirements for concentration limits for certain hazardous substances in electronic information products" covering the classification of materials for testing and their concentration levels.

Toxic or hazardous substances and elements contained in products				
1	Lead (Pb)			
2	Cadmium (Cd)			
3	Mercury (Hg)			
4	Hexavalent chromium (Cr 6)			
5	Polybrominated biphenyls (PBB)			
6	Polybrominated diphenyl ethers (PBDE)			
* Oth	ner substances could be included in the future			

The concentration limits apply in different classes of material. There are 3 classes, each with specific applicable concentrations limits:

Classification	Definition of materials	Limit requirements
EIP-A	Each homogeneous material	The contents of lead, mercury, hexavalent chromium,
	composing EIP	polybrominated biphenyl, polybrominated diphenyl
		ether (exclusive of decabromo diphenyl ether) in this
		category shall not exceed 0.1% and the content of
		cadmium shall not exceed 0.01%.
EIP-B	Metallic coating of each part in	The hazardous substances including lead, mercury,
	EIP	cadmium, hexavalent chromium in this category shall
		not be added intentionally.
EIP-C	Small components or materials	The contents of lead, mercury, hexavalent chromium,
	that cannot be further	polybrominated biphenyl, polybrominated diphenyl
	disassembled under existing	ether (not including decabromo diphenyl ethers) in this
	conditions in EIP. They generally	category shall not exceed 0.1%, and the contents of
	refer to the products of equal to	cadmium shall not exceed 0.01%.
	or less than 4 mm3 in size.	

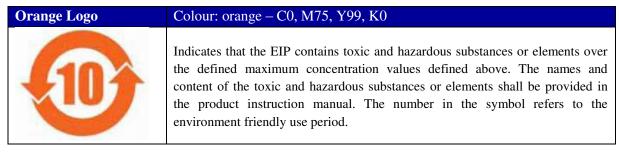
Source: in SJ/T 11363-2006 "requirements for concentration limits for certain hazardous substances in electronic information products"

Products can contain the hazardous substances, and should be marked according to the 2 RoHS logos that identify if the product contains below or above concentration limits.

Marking requirements are stipulated in SJ/T11364-2006 "marking for control of pollution caused by electronic information products" covering the marking of the product, and GB/ T18455-2010 for the packaging.

The **SJ/T11364-2006** standard identifies 2 logos to be placed on the product:

Green Logo	Colour: green – C85, M31, Y83, K20				
	Indicates that the EIP does not contain toxic and hazardous substances or elements above the maximum concentration values, and that it is an environmentally-friendly product which can be recycled and reused.				



If the product is marked with the orange logo and contains hazardous substances above concentration limits, additional marking is needed. A table must be included in the product literature specifying substance levels following the below table:

Name of	Toxic or hazardous substances and elements						
part	Lead	Mercury	Cadmium	(Cr 6)	(PBB)	(PBDE)	
	(Pb)	(Hg)	(Cd)				
Item 1	0	X	0	О	О	О	
Item 2		•••	•••	•••	•••	•••	

* Source: SJ/T11364-2006 "marking for control of pollution caused by electronic information products"

The list must be provided in Chinese and boxes should be marked with either O or X. "O" indicates that the substance is below the concentration limits and "X" that it is above.

The manufacturer can provide further technical explanations for marking "X" based on product conditions.

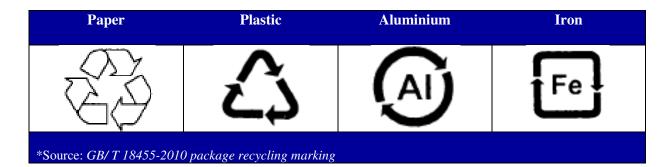
Environment Friendly Use Period (EFUP)

If the product contains any of the identified hazardous substances above the concentration limits, an Environment Friendly Use Period (EFUP) should be indicated. The EFUP is defined as the period during which the hazardous substances do not leak or mutate under normal use. Manufacturers are required to determine the EFUP by themselves, and to label the EFUP inside the orange symbol with a number of years.

Products with a service life limit should be marked with the date of manufacture and its service period. The manufacture date represents the EFUP start date.

There are several ways of determining the EFUP for a product. The MIIT has set up a committee to develop general guidelines on EFUP and manufacturers can look up the recommended EFUP. Other methods include accelerated aging tests, observations, safe use periods, techno-life methods, etc.

The national standard **GB/T 18455-2010** has recently been changed from mandatory to voluntary, and stipulates marking for **recyclable packaging material**. The manufacturer or importer should mark product packaging materials according to the below symbols, using packaging material codes:



Testing methods - **SJ/T 11365-2006** "testing methods for hazardous substances in electronic information products" introduces testing methods to determine levels of hazardous substances in the product, while **GB/Z-21274-2007** provides guidelines to determine regulated substances in electrical and electronic equipment.

Exemptions

Very few exemptions exist for products subject to the China RoHS mark, however products for reexport, spare parts and components to be integrated into the final product are exempt.

Relevant regulations & standards

Measure for the administration of pollution control of electronic information products no.39

Management methods for controlling pollution by electronic information products

SJ/T 11363-2006 "Requirements for concentration limits for certain hazardous substances in electronic information products"

SJ/T11364-2006 "Marking for control of pollution caused by electronic information products"

SJ/T 11365-2006 "Testing methods for hazardous substances in electronic information products"

GB/T 18455-2010 Package recycling marking

GB/ Z-21274-2007 Determination of regulated substances (lead mercury and cadmium) in electrical and electronic equipment



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Date: May, 2011



The EU SME Centre is a project funded by the European Union.