Introduction on China RoHS 2.0 & China REACH
Electrical and Electronic Equipment and the Environment, 1-2 November 2017

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Product Regulations
Service Provider

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Consulting Services  Testing Services  Training and Intelligence Delivery
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  ◆ Scope
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◆ China REACH (Restriction of Chemical Hazards in Consumer Products)

◆ Experience in practice
China RoHS - Regulatory Framework

China RoHS 2.0 (Effective from 1st July 2016)
The Administrative Measures on the Restriction of Hazardous Substances in Electrical and Electronic Products

- 【Limit】 GB/T 26572-2011
- 【Test method】 GB/T 26125-2011, IDT IEC 62321:2008
- 【Test method】 GB/T 29783-2013
- 【Label】 SJ/T 11364-2014
- FAQs about the Measures (Published on 16th May 2016)
- Compliance Management Catalogue (draft)
- Exemption list (draft)
- China RoHS Conformity Assessment Rules (under construction)
China RoHS 2 - Scope

**Are my products covered by China RoHS 2.0?**
China RoHS 2 - Scope

Entered into force on 1 July 2016

A mandatory regulation for electrical and electronic products
Covers manufacture, sale or import in Mainland China

Definition

Electrical and Electronic Equipment or EEE means equipment which is 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 designed for use with a voltage rating not exceeding 1000 volts for alternating current and 1500 volts for direct current; except equipment involved in electric power generation, transmission and distribution.

Accessory equipment products hereof are referred to as components/parts and materials.
China RoHS 2 - Scope

• Decision Tree

Does the product need electric currents or electromagnetic fields to fulfil at least one intended function?

Yes

Is the product's voltage rating in the range of 1 000 volts for alternating current and 1 500 volts for direct current?

Yes

Is the product included in the excluded documents?

No

Is the product only used as the exclusive or customized part of the excepted products?

No

Apply

Origin: translate from FAQ released by MIIT
China RoHS 2 - Scope

Does not apply to:

1. Electrical and electronic products involved in electric power generation, transmission and distribution, including systems or equipment used for power plants, power transmission and distribution stations, and power supply and distribution for buildings.

2. Electrical and electronic products for military use.

3. Electrical and electronic products under special or extreme environment.

4. Electrical and electronic products intended for export.

5. Electrical and electronic products for temporary import or entry for maintenance but not offered for sale.

6. Equipment for the purposes of research and development or test.

7. Samples and showpieces for trade fairs and exhibitions but not offered for sale.
### China RoHS 2 - Scope

#### Electrical and electronic products in China RoHS 2

Including but not limited to:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Communication equipment</td>
</tr>
<tr>
<td>2</td>
<td>Broadcast and TV equipment</td>
</tr>
<tr>
<td>3</td>
<td>Computer and office equipment</td>
</tr>
<tr>
<td>4</td>
<td>Household appliances</td>
</tr>
<tr>
<td>5</td>
<td>Electronic instruments for monitoring and control applications</td>
</tr>
<tr>
<td>6</td>
<td>Industrial electrical and electronic equipment</td>
</tr>
<tr>
<td>7</td>
<td>Power tools</td>
</tr>
<tr>
<td>8</td>
<td>Medical electronics and devices</td>
</tr>
<tr>
<td>9</td>
<td>Lighting products</td>
</tr>
<tr>
<td>10</td>
<td>Sports, stationery and entertainment products</td>
</tr>
</tbody>
</table>
China RoHS 2 - Requirements

What requirements should my products comply with?
China RoHS 2 - Requirements

RoHS 2 Scope

Compliance Management
Catalogue (draft)

The exemption list (draft)

Marking is required (SJ/T 11364-2014)

Comply with the hazardous substance restriction limits set out in national standard GB/T 26572-2011
China RoHS Conformity Assessment Rules (draft)

Implement the details of the exemption list
China RoHS 2 - Scope

Draft Compliance Management Catalogue (draft)
Issued on 29 June 2017

There are 12 Categories

- Refrigerators
- Air conditioners
- Washing machines
- Electrical water heaters
- Printers
- Copiers
- Fax machine
- Television set
- Monitor
- Microcomputer
- Mobile telecommunication handset
- Telephone set

公开征求对《电器电子产品有害物质限制使用达标管理目录（第一批）》（征求意见稿）及《达标管理目录限用物质应用例外清单》的意见

发布时间：2017-06-29 来源：节能与综合利用司
## China RoHS 2 - Scope

**Draft Compliance Management Catalogue (draft)**  
Issued on 29 June 2017

<table>
<thead>
<tr>
<th>S.N</th>
<th>Product name</th>
<th>Range and definition of product</th>
<th>Description for application scope</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Refrigerators</td>
<td>A thermal-insulating box composed of one or more chamber(s), capable of controlling the</td>
<td>Refrigerators can be classified as standing, portable, wall-mounted and embedded types, etc. Where classified according to purpose, refrigerators include</td>
</tr>
<tr>
<td></td>
<td></td>
<td>temperature at a specified level, equipped with appropriate volume and structure, adopting</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>natural convection or forced convection and consuming one or more energies to obtain cooling</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>capacity (volume ≤ 800L).</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Air conditioners</td>
<td>A kind of equipment directly providing processed air to an enclosed space, room or area,</td>
<td>An air conditioner is mainly composed of a refrigerating system used for refrigeration and dehumidification, air circulation and a purification device and/or a</td>
</tr>
<tr>
<td></td>
<td></td>
<td>including room air conditioners and unitary air conditioners (with rated refrigerating</td>
<td>heating and ventilation device (they may be assembled in a box case or designed as a component system where they are used together). Air conditioners include</td>
</tr>
<tr>
<td></td>
<td></td>
<td>capacity ≤ 14000w).</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Translated by Chemical Watch
China RoHS 2 - Scope

- Draft exemption list

<table>
<thead>
<tr>
<th>No.</th>
<th>Application</th>
<th>Maximum allowable limits</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td><strong>Mercury (Hg)</strong></td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Single-capped (compact type) fluorescent lamp for general lighting service</td>
<td>Mercury content in each lamp tube must not exceed:</td>
</tr>
<tr>
<td></td>
<td>Power &lt; 30W</td>
<td>2.5mg</td>
</tr>
<tr>
<td></td>
<td>30W ≤ Power &lt; 50W</td>
<td>3.5mg</td>
</tr>
<tr>
<td></td>
<td>50W ≤ Power &lt; 150W</td>
<td>5mg</td>
</tr>
<tr>
<td></td>
<td>Power ≥ 150W</td>
<td>15mg</td>
</tr>
<tr>
<td></td>
<td>Lamp tube is of circular or square shape, with tube diameter ≤ 17mm</td>
<td>7mg</td>
</tr>
<tr>
<td></td>
<td>For those used for special purpose</td>
<td>5mg</td>
</tr>
<tr>
<td></td>
<td>Power &lt; 30W; service life ≥ 20000h</td>
<td>3.5mg</td>
</tr>
<tr>
<td>2.1</td>
<td>Double-capped straight-tube fluorescent lamp with trichromatic phosphor</td>
<td>Mercury content in each lamp tube must not exceed:</td>
</tr>
<tr>
<td></td>
<td>powder, which is used for general lighting service</td>
<td></td>
</tr>
</tbody>
</table>
China RoHS 2 - Requirements

RoHS 2 Scope

Marking is required (SJ/T 11364-2014)

Compliance Management
Catalogue (draft)

Comply with the hazardous substance restriction limits set out in national standard GB/T 26572-2011
China RoHS Conformity Assessment Rules (draft)

The exemption list (draft)

Implement the details of the exemption list
China RoHS 2 - Requirements

- China RoHS 2 Marking  SJ/T 11364-2014

- This product does not contain any hazardous substances or they are not exceeding the concentration limits (GB/T 26572).

- This product contains certain hazardous substances.
- This product can be used safely during its environmental protection use period.

According to SJ/Z 11388
China RoHS 2 - Requirements

• China RoHS 2 Marking  SJ/T 11364-2014

If the products need to be marked as orange, manufacturers and importers shall provide the names and contents of hazardous substances in product instructions and mark them on the parts where they are contained by using the table below:

<table>
<thead>
<tr>
<th>Part Name</th>
<th>Hazardous Substances</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Lead (Pb)</td>
</tr>
<tr>
<td></td>
<td></td>
</tr>
</tbody>
</table>

At Least
0 : The hazardous substance in the unit complies with the limitation in GB/T 26572.

X : At least one raw material has the hazardous substance which exceeds the limitation.
China RoHS 2 - Requirements

• **China RoHS 2 Limit**  GB/T 26572-2011

  6 substances
  - Lead (0,1 %)
  - Mercury (0,1 %)
  - Cadmium (0,01 %)
  - Hexavalent chromium (0,1 %)
  - Polybrominated biphenyls (PBB) (0,1 %)
  - Polybrominated diphenyl ethers (PBDE) (0,1 %)

• **EU: 6 + 4 phthalates (added in 2015)**
## Important differences between China RoHS 2.0 and EU RoHS

<table>
<thead>
<tr>
<th>Items</th>
<th>China RoHS 2</th>
<th>EU RoHS</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Scope</strong></td>
<td>Hazardous substances limit: Products listed in Compliance Management Catalogue, except products in the exemption list</td>
<td>Hazardous substances limit: EEE products except those in exemption list</td>
</tr>
<tr>
<td></td>
<td>Batteries are included</td>
<td>Batteries should comply with Batteries Directive(2006/66/EC).</td>
</tr>
<tr>
<td><strong>Restricted substances</strong></td>
<td>Pb, Cd, Hg, Cr6+, PBB, PBDE</td>
<td>Pb, Cd, Hg, Cr6+, PBB, PBDE+4 phthalates</td>
</tr>
<tr>
<td><strong>Marking</strong></td>
<td>• Green/Orange marking</td>
<td>• CE Marking</td>
</tr>
<tr>
<td></td>
<td>• Declaration of contents of hazardous substances</td>
<td>• WEEE Marking</td>
</tr>
</tbody>
</table>
China RoHS 2 - Violations

Product: Jacuzzi
Date: September, 2017
Executive : Suzhou CIQ
The way of import : General trade
Violation: As the products were not tested for their content of hazardous substances, the importers were unable to complete their rectification and the products were finally destroyed.
Reason : The lack of marking and the declaration of the hazardous substances content.

Other News from AQSIQ
- Inspection and Quarantine Bureau of Zhenjiang has continuously intercepted four batches of Korean medical ultrasound products without label of hazardous substances which valued $329000.
- Inspection and Quarantine Bureau of Suzhou, an industrial city in Jiangsu province, intercepted 54 webcams in a company who imported them without compliance label.
- Inspection and Quarantine Bureau of Wuxi, a city close to Suzhou, checked out a batch of electrical and electronic equipment without labels of hazardous substances which were imported from the US.

💬 Know more about the news
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◆ China REACH (Restriction of Chemical Hazards in Consumer Products)

◆ Experience in practice
On 28 March 2017, the China National Consumer Products Safety Standardization Technical Commission sought public opinions for the Chinese standard Restriction of Chemical Hazards in Consumer Products (also known as “China REACH”). The standard includes 103 kinds of chemical substances.
Safety requirements for hazardous chemicals in consumer products

Background

1. Draft (Now); Maybe finished by the end of this year; Publishing time: unknown

- It will be a recommended standard (GB/T)

For the chemical safety of consumer products which are not required by domestic standards, this standard refers to some regulations in other regions, like: EN71-9, Oekotex100-2017, REACH and so on.

Important differences between China REACH and EU REACH

1. China REACH only restricts certain chemicals but imposes no requirements for registration, evaluation, authorization and notification as those set forth in EU REACH Regulation.

2. EU REACH Regulation regulates all chemicals accessing the EU market while China REACH only targets hazardous substances regarding consumer products.

3. EU REACH Regulation does not overlap with other product regulations but China REACH tends to be a consolidation of restrictions in existing standards.
## 5. Safety Requirement

<table>
<thead>
<tr>
<th>No.</th>
<th>Chemicals</th>
<th>CAS No.</th>
<th>Restriction</th>
<th>Remark</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>铅</td>
<td>7439-92-1</td>
<td>1. 该物质的迁移量应≤25 mg/kg。</td>
<td>GB 28482-2012 婴幼儿用奶嘴安全要求，条款 8.4.</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>2. 儿童牙刷中该物质的迁移量应≤90mg/kg。</td>
<td>GB 30002-2013 儿童牙刷，条款 4.2.3。</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>3. 婴幼儿纺织品中，非纺织附件以及涂层和涂料印花织物中</td>
<td>GB 31701-2015 婴幼儿及儿童纺织品安全技术规范，条款 4.2。</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>该物质总含量应≤90 mg/kg；婴幼儿及儿童纺织产品的面料、里料、附件所用织物中该物质总含量应≤90 mg/kg。</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>4. 指画颜料中该物质的迁移量应≤25mg/kg，造型黏土和其它</td>
<td>GB 6675.4-2014 玩具安全 第4部分 特定元素的迁移，条款 8.4。</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>玩具材料（除造型黏土和指画颜料）中该物质的迁移量应≤90 mg/kg。</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>5. 饰品中该物质的总含量应≤1000 mg/kg；儿童首饰中该物质</td>
<td>GB 28480-2012 饰品 有害元素限量的规</td>
</tr>
</tbody>
</table>

### EU REACH Annex XVII

- Referenced Standards
Safety requirements for hazardous chemicals in consumer products

103 kinds of chemical substances

Heavy metals:
Lead (Pb), Mercury (Hg), Chromium (Cr), Cr(VI), Nickel (Ni), Tin, Antimony (Sb), Cadmium (Cd), Barium, Selenium, Organic tin compounds, Cobalt (Co), Arsenic (As), Copper (Cu)

Other organic hazardous chemicals:
SCCP, PAHs, BPA, Benzene, Phthalates, NP, NPEO, Formaldehyde, Methanol, Chlorinated phenols, PBBs, Toluol, Methylbenzene, OPP, DEGME, DEGBE, PFOS, TDI, MDI, VOC, TVOC, Arylamines, Formamide, Carcinogens, MBT...
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- China REACH (Restriction of Chemical Hazards in Consumer Products)

- Experience in practice
Experience in practice

- **China RoHS 2**

  If the product is covered by the scope of China RoHS 2.

  To do the test to find out the contents of the 6 substances.

  Make labels according to the test results and the regulation requirements.

Tips:

- Scope identification is quite complex.
- Label must be in simplified Chinese language.
- Encouraged to use the test methods as regulation.
- It will be better to send your products to China located lab to confirm, the CMA certificated lab will be a good choice.
- The test report might be required by customers.
- After the Compliance Management Catalogue becomes effective, the products listed in this catalogue must comply with the limitation.
Experience in practice

• China RoHS 2 Timeline

Products listed in the CMC must meet the limitations of China RoHS 2

Label must meet the new requirement SJ/T 11364-2014. After the CMC is released, companies should prepare for the hazardous requirement

Transitional period. Both old label and new label are acceptable

According to the old regulation which released in 2006

CMC : Compliance Management Catalogue
Experience in practice

• China REACH (Safety requirements for hazardous chemicals in consumer products)

Tips:
• This regulation will be a Voluntary Standard.
• This regulation has a good reference value for companies to control the hazardous chemicals in consumer products according to Chinese regulations.
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Thank you for your attention