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## Jewellery Testing

Jewellery consists of small decorative items worn for personal adornment, such as anklets, arm cuffs, bracelets, brooches, chains, crowns, cuff links, decorated hair accessories, earrings, necklaces, pins and rings. Besides valuable jewellery, costume and fashion jewellery also gains great popularity among consumers by its reasonable price and exquisite design.

It is essential to confirm safety of jewellery as it always comes into direct contact with the skin. Countries impose stringent requirements on toxic and hazardous substances in jewellery, especially children's jewellery. For instance, Europe, the United States, Canada, Japan and China have established regulations and standards for jewellery on the market. C&K Testing is devoted to helping enterprises to comply with different regulatory requirements across the world.

## Regulations and Standards

The United States, China and Canada have established legislations specifically to regulate jewellery. The limits for adult jewellery and children's jewellery are quite different as children are more vulnerable to toxic and hazardous substances. It deserves special notice that heavy metals and phthalates are items of high concern in jewellery.

Country	Regulation	Substances and their limits
US	ASTM F2923 Standard Specification for Consumer Product Safety for Children's Jewellery	Total Lead: Substrates ≤ 100ppm , Paints and coatings ≤ 90ppm Total Cadmium: Accessible metal and plastic components ≤ 300ppm Soluble heavy metals: Soluble Antimony ≤ 60ppm Soluble Arsenic ≤ 25ppm Soluble Barium ≤ 1,000ppm Soluble Cadmium ≤ 75ppm Soluble Chromium ≤ 60ppm Soluble Mercury ≤ 60ppm Soluble Selenium ≤ 500ppm Nickel release: Body-piercing post assemblies ≤ 0,2µg/cm <sup>2</sup> /week Other components ≤ 0,5µg /cm <sup>2</sup> /week Liquid filled jewellery should not contain materials listed in 16 CFR 1500.14 and 16 CFR 1500.231
	Code of Federal Regulations (CFR) ASTM F2999 Standard Consumer Safety Specification for Adult Jewellery	Total Lead: Electroplated metals ≤ 60,000ppm, Unplated metals ≤ 15,000ppm Plastic, rubber, stone and PVC ≤ 200ppm Paint, coatings and other materials ≤ 600ppm Total Cadmium: Accessible metal and plastic components ≤ 15,000ppm Soluble heavy metals: Soluble Antimony ≤ 60ppm Soluble Arsenic ≤ 25ppm Soluble Barium ≤ 1,000ppm Soluble Cadmium ≤ 75ppm Soluble Chromium ≤ 60ppm Soluble Mercury ≤ 60ppm Soluble Selenium ≤ 500ppm Liquid filled jewellery should not contain materials listed in 16 CFR 1500.14 and 16 CFR 1500.231
	Ban of Lead-containing Paint and Certain Consumer Products Bearing Lead-containing Paint 16 CFR 1303	Total Lead ≤ 90ppm
	Consumer Product Safety Improvement Act (CPSIA)	Total Lead: Substrates ≤ 100ppm, Paints and coatings ≤ 90ppm Phthalates: DEHP, BBP, DBP, DINP, DIDP, DNOP (each) ≤ 1,000ppm

Country	Regulation	Substances and their limits	
	Local Regulations	California (AB 1681, Proposition 65)	Jewellery with surface coatings: made of class 1, 2 and 3 materials as specified; Children's jewellery (for children aged six or younger): made of class 1, 2 and 3 materials as specified; Body-piercing jewellery: made of materials as specified.
		Illinois (Public Act 096-1379)	Children's jewellery: Total Cadmium (pigments and coatings) ≤ 75ppm
		Connecticut (Public Act No.10-113)	Children's jewellery: Total Cadmium ≤ 75ppm
		Minnesota (Laws of Minnesota for 2007 , Chapter132)	Children's jewellery: Total Cadmium ≤ 75ppm
EU	Annex XVII under REACH	Nickel release: Body-piercing post assemblies ≤ 0,2µg/cm <sup>2</sup> /week For direct and prolonged contact ≤ 0,5µg/cm <sup>2</sup> /week Cadmium ≤ 100ppm Phthalates: DEHP+BBP+DBP ≤ 1,000ppm, DINP+DIDP+DNOP ≤ 1,000ppm Lead ≤ 500ppm	
	Safety of Toys Directive (2009/48/EC)	Children's jewellery shall meet the criteria for 19 heavy metals (soluble) in Directive 2009/48/EC.	
China	GB 28480-2012 Adornment—Provision for limit of baneful elements	Adult jewellery: Lead, Mercury, Arsenic, Chromium (VI) ≤ 1,000ppm Cadmium ≤ 100ppm Children's jewellery: Total Lead ≤ 300ppm Soluble Antimony ≤ 60ppm Soluble Arsenic ≤ 25ppm Soluble Barium ≤ 1,000ppm Soluble Cadmium ≤ 75ppm Soluble Chromium ≤ 60ppm Soluble Lead ≤ 90ppm Soluble Mercury ≤ 60ppm Soluble Selenium ≤ 500ppm	
Japan	Japanese Toy Safety Standards (ST2016)	Soluble Lead ≤ 90ppm Total Cadmium: banned	
Canada	Surface Coating Materials Regulation (SOR/2005-109)	Total Lead: ≤ 90mg/kg, Total Mercury: ≤ 10mg/kg	
	Children's Jewellery Regulations (SOR/2011-19)	Total Lead: ≤ 600mg/kg , Migration of Lead ≤ 90mg/kg	
	Draft Proposal for Cadmium Guidelines in Children's Jewellery	Total Cadmium: ≤ 130ppm	



## Our Solutions

C&K Testing provides one-stop solutions for customers based on professional assessment and testing:

- Heavy metals (total Lead and Cadmium)
- Migration of heavy metals
- ASTM F963
- Physical tests (tensile force, torque force, sharp points/edges, small parts)
- Other services
- Nickel release
- Phthalates
- SVHC
- DMF



## Attentive Services

C&K Testing also renders five extra services while providing strong technical support:

- Special offers for testing on a regular basis;
- Management and integration of suppliers for free;
- Sharing of the latest technical news;
- Door-to-door training and orientation for suppliers;
- Customised solutions.

## Company Profile

C&K Testing is a leading testing company to render you specialised solutions concerning green and sustainable development of products. Established in 2008, we've helped thousands of customers to minimise the risks of their products to human health and the environment through our testing services.

Our company is a member of CIRS which is a leading product safety management consulting firm. With our offices in Ireland and the United States as well as our laboratory in China, a global network of testing facilities enables you to meet all the relevant regulatory requirements across different markets more cost-efficiently.

Combining widely global recognition and extensive local experience, staffed by knowledgeable experts, C&K Testing will help you to gain a competitive advantage in the global marketplace by ensuring product safety and quality, removing trade barriers and optimising manufacturing procedures.

Our Testing Services: food and food-related products, cosmetics, environment, consumer products, industrial goods and chemicals, etc.



## An Authoritative Platform for 3rd-Party Testing

### Hangzhou

Add: 1/F, No.4 Building, Huaye Hi-Tech Industrial Park, No.1180, Bin'an Road, Binjiang District, Hangzhou, Zhejiang, China  
Tel: +86-571-87206587 Fax: +86-571-89900719  
Email: test@cirs-group.com

### Nanjing

Add: 2/F, Guangde Commercial Center, No. 158, Fangshui Road, Chemical Industrial Park, Nanjing, Jiangsu, China  
Tel: +86-25-58390409  
Email: shg@cirs-group.com

### Ireland

Add: Unit 1 Ardee Business Park, Hale Street, Ardee, Co. Louth, Ireland  
Tel: +353-41-9806916 Fax: +353-41-9806999  
Email: louise@cirs.ie

### Beijing

Add: 9/F, Zhongyu Century, No. 31 Lianhuachi Road (E.), Haidian District, Beijing, China  
Tel: +86-010-63984062; +86-010-63984032  
Fax: +86-010-63984032  
Email: test@cirs-group.com

