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NO. 203/11 NOV 2011

ASTM PUBLISHES STANDARD METHOD FOR CHILDREN'S JEWELLERY

On 9 November 2011, ASTM International announced the release of the new standard method ASTM F2923-11 'Standard Specifications for Consumer Product Safety for Children's Jewellery'¹. The standard establishes test methods and requirements for specified restricted substances as well as requirements for certain mechanical hazards in children's jewellery². It also provides guidelines for identifying jewellery designed and intended primarily for children up to 12 years old as well as those primarily for use by consumers 13 and older.

Under the new standard, jewellery is defined as a product principally designed and intended as an ornament worn by a person and includes:

- i. Anklet, arm cuff, bracelet, brooch, chain, crown or tiara, cuff link, hair accessory with significant decorative elements, earrings or ear cuffs, necklace, pins such as tie tacks and trading pins, ring, body piercing jewellery, jewellery placed in the mouth for display or ornament,
- ii. Any component of a product listed in (i) above,
- iii. Any charm, bead, chain, link, pendant or other attachment to shoes or clothing designed to be removed and worn, alone or attached to an item in (i) above, as an ornament by a person,
- iv. Watch in which a timepiece is a component of an ornament, excluding the timepiece itself if the timepiece can be removed from the ornament,
- v. Jewellery components in craft kits where the final assembled jewellery product is principally designed and intended as an ornament worn by a person.



Body piercing jewellery for children shall be made exclusively from:

- Surgical implant stainless steel,
- Surgical implant grade titanium,
- Niobium (Nb),
- Solid 14K or higher white or nickel-free gold,
- Solid platinum,
- A dense, low-porosity plastic, including, but not limited to, Tygon or Polytetrafluoroethylene (PTFE) if the plastic contains no intentionally added lead.

¹ [New Standard for Children's Jewelry Is Issued by ASTM International, ASTM International News Release, Release #9010, 9 November 2011](#)

² [ASTM F 2923-11 'Standard Specification for Consumer Product Safety for Children's Jewelry, ASTM International](#)

TABLE 1. HIGHLIGHTS OF THE SPECIFICATIONS FOR RESTRICTED SUBSTANCES

ITEM	SUBSTANCE / PARAMETER	SCOPE OF CHILDREN'S JEWELLERY	METHOD	REQUIREMENT
1	Lead content	Accessible paint and surface coatings	CPSC-CH-E1003-09	≤ 90 ppm
2	Lead content	Accessible components other than paint and surface coatings	CPSC-CH-E1002-08 CPSC-CH-E1001-08	≤ 100 ppm Exemption³ Materials exempted by CPSIA
3	Soluble heavy metals	Paint and surface coatings	BS EN 71-3 or ASTM F963	≤ 60 ppm (antimony) ≤ 25 ppm (arsenic) ≤ 1000 ppm (barium) ≤ 75 ppm (cadmium) ≤ 60 ppm (chromium) ≤ 60 ppm (mercury) ≤ 500 ppm (selenium)
4	Cadmium	Accessible plastic / polymeric components as small parts	BS EN 71-3 (soluble cadmium)	≤ 300 ppm cadmium content otherwise ≤ 75 ppm soluble cadmium
5	Cadmium	Accessible metal components as small parts	CPSC-CH-E1004-11 (extractable cadmium)	≤ 300 ppm cadmium content otherwise ≤ 200 µg extractable cadmium
6	Cadmium	Accessible metal or plastic / polymeric components that are not small parts but may be mouthing	Modified CPSC SOP for Measuring Lead in Children's Metal Jewelry, Feb 3, 2005, section II ⁴	≤ 300 ppm cadmium content otherwise ≤ 18 µg extractable cadmium
7	Nickel release	Post assemblies inserted into pierced ears and other pierced parts of the human body	EN 12472 BS EN 1811:2011 ⁵	≤ 0.2 µg/cm ² /week
8		Direct and prolonged contact with skin		≤ 0.5 µg/cm ² /week
9	16 CFR §1500.231	Liquid filled	----	Liquid should not contain such listed substances
10	16 CFR § 1500.14			Liquid should not contain materials which would require special labeling under 16 CFR § 1500.14

³ [Children's Products Containing Lead; Determinations Regarding Lead Content Limits on Certain Materials or Products; Final Rule, 16 CFR Part 1500, Vol 74, No. 164, 26 August 2009, Federal Register Safeguards 154/09](#)

⁴ [Standard Operating Procedure for Determining Lead \(Pb\) and Its Availability in Children's Metal Jewelry 3 Feb 2005](#)

⁵ [Safeguards 160/11](#)

TABLE 2. THE SPECIFICATIONS FOR NON-CHEMICAL HAZARDS

ITEM	SCOPE OF CHILDREN'S JEWELLERY	REMARK
1	Magnet or magnetic component	Shall not have an as-received hazardous magnet or an as-received hazardous magnetic component unless it complies with item 3
2	Magnet or magnetic component	Shall not liberate a hazardous magnet or hazardous magnet component when tested against ASTM F963
3	Intended for children 8 years of age or older consisting of earrings, brooches, necklaces or bracelets which contain loose as-received hazardous magnets or loose as-received hazardous magnetic components	Shall contain warning statement with specified or substantially equivalent text for <ul style="list-style-type: none"> • Earrings
4	Intended to be attached around the neck	Shall release, either by designed breakaway feature, attachment design or physical properties of the materials when subject to 15 lb of tension in a breakaway tension test
5	Mechanical requirements for children's jewellery for up to 8 years of age	No hazard(s) after testing in accordance with 16 CFR 1500.50-53
6	Functional sharp point e.g. Pin stems for pins or brooches	Exempt from 16 CFR 1500.48
7	Earring components becoming embedded in ear over long term wearing	Cautionary labelling recommended
8	Children's jewellery containing battery	If small part (16 CFR 1501.4), can not be accessible before or after testing (16 CFR 1500.50-53)
9	Battery-operated children's jewellery that uses more than one replaceable battery in one circuit	Instructions or product shall be marked with specified (or equivalent) information.

PROHIBITED

- Suction tongue studs as children's jewellery

SGS will follow-up and inform interested parties about developments on regulations or policies in consumer products as a complimentary service.

Throughout our global network of laboratories, we are able to provide a range of services, including analytical testing and consultancy for ASTM F 2923-11 in children's jewellery and other restricted substances in consumer products for the US and international markets. Please do not hesitate to contact us for further information.

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