# CPSC Roundtable

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# Who is FJTA?

- Represents the fashion or costume jewelry industry
  - Not vending machine jewelry; not novelty jewelry, not premium (give-away) jewelry
- Vast majority of fashion jewelry is sold in jewelry counters in department stores, accessory stores and other retail outlets
- Sales estimated at $8.9 billion
  - ~5% children (≤6); ~30% teen/tween

# Is Lead Found in Jewelry?

- Jewelry may be made of metal, plastic, wood, crystal or glass, and many other materials
- Lead is a naturally occurring element found in the earth's crust
  - When ores, such as tin, are mined they will contain some lead; amount depends on location or country
- Lead is physically bound in the matrix of crystal
- Lead may be used in other jewelry components in small amounts

# Lead Imparts Desirable Properties to Some Jewelry

- The low melting temperature allows the smooth and complete flow in the metal casting process
  - This minimizes manufacturing waste and saves energy
- The nature of lead allows exceptional smoothness to surfaces for plating
- Lead is flexible so it minimizes breakage
- **This is why higher lead content is permitted under CA, MI and MN laws on jewelry for those over 6 years**

# CA Jewelry Standards

- Stakeholders from government, environmental groups and industry evaluated test methods and set specifications on lead that were both protective of health and achievable
- Toxicologists, metallurgists, an analytical chemist, a laboratory director, a plating chemist, and a risk assessment expert participated as experts and recommended lead limits and test methods

# Reducing Lead in Children's Jewelry

- The jewelry industry had over 1 year to reformulate the casting metal used in children's jewelry (for <6) to the CA level of ≤ 600 parts per million (ppm)
  - This level was agreed to by stakeholders as safe for children
- Glass and crystal exempt if <1g
- Other materials exempt (sterling silver, etc.)

# Reducing Lead in Other Jewelry

- Industry had over 18 months to reformulate the casting metal used in jewelry for other consumers to specified levels for plated and unplated metal
  - These levels were agreed to by stakeholders as safe for those >6
- Proper plating recognized as a barrier
- Crystal, glass exempt
- Other materials exempt (sterling silver, etc.)

# Potential Substitutes for Lead

- Tin comprises a very high percentage of casting metal, but pure tin cannot be used to cast jewelry because of brittleness
- Small amounts of other metals are added to the mix as a binder and for product performance
  - Bismuth, antimony, silver, and copper can be added to tin to create casting metal but the alloy will still contain some naturally occurring lead

# Proposed Federal Legislation

- Proposed Federal legislation reduces lead to 300 ppm, and to 100 ppm if feasible, over time
- Children's products defined differently under both bills
- Implementation schedules are different
- Scope of exemptions and process for approval are different

# Impact of Proposed Federal Legislation

- New materials will have to be formulated to meet new standards
- New manufacturing procedures will have to be developed; “clean room” procedures may be needed
- Scope of the technical challenge depends on how “children’s products” are defined
- Some products will likely disappear

# Lead Testing

- Current testing equipment will not accurately test very low lead limits
  - Different equipment will have to be purchased and brought on line
  - Some states specify use of certain tests (EPA methods specified in CA, MN; A variation of the CPSC method specified in MA DPH regulations)
- Some technologies (like XRF) do not provide accurate reading of well-plated metal but may be useful screening tool

# Best Practices for the Jewelry Industry

- Manufacturers will use a flow chart and track raw materials, work in process and finished products, testing at each level to insure quality
- Supplier certifications required
- “In house” testing for components
- Independent testing for finished products.
  - Testing done in country of origin
  - Random testing done once received in US

# Defining Children's Jewelry

- Detailed safety assessment leading to CA law adopted 6 and under
  - The toxicologists recognized that mouthing behavior drops with age
- Jewelry for <7 age group is designed, sized, packaged, displayed, and located in the stores for this consumer
- Simpler designs for this age group allow use of low lead alloys because intricate castings not required

# Comparing Domestic and Foreign Manufacturing

- US manufacturers sell almost all their products within the US
  - Fashion jewelry now meets jewelry standards in CA,MI and MN
- Foreign manufacturers sell to all countries.
- No other country limits lead at levels as low as those proposed in the US
  - Tools and equipments in foreign factories must be segregated for US production to avoid contamination.
  - Lead from other sources (diesel emissions) may contaminate product

# FJTA Supports National Standards

- FJTA supports national science-based standards for lead in jewelry
- Limits for components and timeframes for compliance should be protective of public health and achievable by industry
- Products and materials that do not pose a safety hazard should be exempt (e.g., crystal)

# FJTA Supports National Standards

- Further drastic reductions of lead in metal requires time to obtain and test supplies, train manufacturers, and implement procedures to avoid inadvertent contamination
- Global supply chain and technical constraints must be recognized in setting definitions, levels and timetables
- Industry must be able to test to verify compliance using appropriate tests that many labs can conduct reliably

# Thank You!

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