A bill for an act

relating to commerce; banning cadmium jewelry; amending Minnesota Statutes 2008, section 325E.389.

BE IT ENACTED BY THE LEGISLATURE OF THE STATE OF MINNESOTA:

Section 1. Minnesota Statutes 2008, section 325E.389, is amended to read:

325E.389 ITEMS CONTAINING LEAD AND CADMIUM PROHIBITED.

Subdivision 1. **Definitions.** For purposes of this section, the following definitions apply.

(a) "Body piercing jewelry" means any part of jewelry that is manufactured or sold for placement in a new piercing or a mucous membrane, but does not include any part of that jewelry that is not placed within a new piercing or a mucous membrane.

(b) "Children" means children age six and younger.

(c) "Children's jewelry" means jewelry that is made for, marketed for use by, or marketed to children. For purposes of this section, children's jewelry includes, but is not limited to, jewelry that meets any of the following conditions:

(1) is represented in its packaging, display, or advertising as appropriate for use by children;

(2) is sold in conjunction with, attached to, or packaged together with other products that are packaged, displayed, or advertised as appropriate for use by children;

(3) is sized for children and not intended for use by adults; or

(4) is sold in any of the following:

(i) a vending machine;

(ii) retail store, catalog, or Web site in which a person exclusively offers for sale products that are packaged, displayed, or advertised as appropriate for use by children; or

(iii) a discrete portion of a retail store, catalog, or Web site in which a person offers for sale products that are packaged, displayed, or advertised as appropriate for use by children.

(d) "Class 1 material" means any of the following materials:

(1) stainless or surgical steel;

(2) karat gold;

(3) sterling silver;

(4) platinum, palladium, iridium, ruthenium, rhodium, or osmium;

(5) natural or cultured pearls;

(6) glass, ceramic, or crystal decorative components including cat's eye; cubic zirconia, including cubic zirconium or CZ; rhinestones; and cloisonne;

(7) a gemstone that is cut and polished for ornamental purposes, except that the following gemstones are not Class 1 materials: aragonite, bayldonite, boleite, cerussite, crocoite, ekanite, linarite, mimetite, phosgenite, samarskite, vanadinite, and wulfenite;

(8) elastic, fabric, ribbon, rope, or string, unless it contains intentionally added lead and is listed as a Class 2 material;

(9) all natural decorative material including amber, bone, coral, feathers, fur, horn, leather, shell, and wood that is in its natural state and is not treated in a way that adds lead; or

(10) adhesive.

(e) "Class 2 material" means any of the following materials:

(1) electroplated metal that meets the following standards:

(i) on and before August 30, 2009, a metal alloy with less than ten percent lead by weight that is electroplated with suitable under and finish coats; or

(ii) on and after August 31, 2009, a metal alloy with less than six percent lead by weight that is electroplated with suitable under and finish coats;

(2) unplated metal with less than 1.5 percent lead that is not otherwise listed as a Class 1 material;

(3) plastic or rubber including acrylic, polystyrene, plastic beads and stones, and polyvinyl chloride (PVC) that meets the following standards:

(i) on and before August 30, 2009, less than 0.06 percent (600 parts per million) lead by weight; and

(ii) on and after August 31, 2009, less than 0.02 percent (200 parts per million) lead by weight; and

(4) a dye or surface coating containing less than 0.06 percent (600 parts per million) lead by weight.

(f) "Class 3 material" means any portion of jewelry that meets both of the following criteria:

(1) is not a Class 1 or Class 2 material; and

(2) contains less than 0.06 percent (600 parts per million) lead by weight.

(g) "Component" means any part of jewelry.

(h) "EPA reference methods 3050B (Acid Digestion of Sediments, Sludges, and Soils) or 3051 (Microwave Assisted Digestion/Sludge, Soils)" means those test methods incorporated by reference in Code of Federal Regulations, title 40, section 260.11, paragraph (11), subdivision (a).

(i) "Jewelry" means:

(1) any of the following ornaments worn by a person: anklet, arm cuff, bracelet, brooch, chain, crown, cuff link, decorated hair accessories, earring, necklace, pin, ring, or body piercing jewelry; or

(2) any bead, chain, link, pendant, or other component of such an ornament.

(j) "Surface coating" means a fluid, semifluid, or other material, with or without a suspension of finely divided coloring matter, that changes to a solid film when a thin layer is applied to a metal, wood, stone, paper, leather, cloth, plastic, or other surface. Surface coating does not include a printing ink or a material that actually becomes a part of the substrate including, but not limited to, pigment in a plastic article or a material that is actually bonded to the substrate, such as by electroplating or ceramic glazing.

Subd. 2. **Sale prohibited.** (a) No person shall manufacture any jewelry that is offered for sale in Minnesota unless the jewelry is made entirely from a Class 1, Class 2, or Class 3 material, or any combination thereof, and does not contain cadmium.

(b) No person shall offer for sale, sell, label, or distribute for free any jewelry represented to contain safe levels of lead, unless the jewelry is made entirely from a Class 1, Class 2, or Class 3 material, or any combination thereof, and does not contain cadmium.

(c) Notwithstanding paragraph (a), no person shall manufacture any children's jewelry that is offered for sale in Minnesota unless the children's jewelry is made entirely from one or more of the following materials, and does not contain cadmium:

(1) a nonmetallic material that is a Class 1 material;

(2) a nonmetallic material that is a Class 2 material;

(3) a metallic material that is either a Class 1 material or contains less than 0.06 percent (600 parts per million) lead by weight;

(4) glass or crystal decorative components that weigh in total no more than one gram, excluding any glass or crystal decorative component that contains less than 0.02 percent (200 parts per million) lead by weight and has no intentionally added lead;

(5) printing ink or ceramic glaze that contains less than 0.06 percent (600 parts per million) lead by weight; or

(6) Class 3 material that contains less than 0.02 percent (200 parts per million) lead by weight.

(d) Notwithstanding paragraph (b), no person shall offer for sale, sell, distribute for free, or label any jewelry as children's jewelry represented to contain safe levels of lead, unless the jewelry is made entirely from one or more of the following materials, and does not contain cadmium:

(1) a nonmetallic material that is a Class 1 material;

(2) a nonmetallic material that is a Class 2 material;

(3) a metallic material that is either a Class 1 material or contains less than 0.06 percent (600 parts per million) lead by weight;

(4) glass or crystal decorative components that weigh in total no more than one gram, excluding any glass or crystal decorative component that contains less than 0.02 percent (200 parts per million) lead by weight and has no intentionally added lead;

(5) printing ink or ceramic glaze that contains less than 0.06 percent (600 parts per million) lead by weight; or

(6) Class 3 material that contains less than 0.02 percent (200 parts per million) lead by weight.

(e) Notwithstanding paragraph (a), no person shall manufacture any body piercing jewelry that is offered for sale in Minnesota unless the body piercing jewelry is made of one or more of the following materials:

(1) surgical implant stainless steel; or

(2) surgical implant grade of titanium, niobium (Nb), solid 14-karat or higher white or yellow nickel-free gold, solid platinum, or a dense low-porosity plastic including, but not limited to, Tygon or polytetrafluoroethylene (PTFE), if the plastic contains no intentionally added lead.

(f) No person shall offer for sale, sell, label, or distribute for free any body piercing jewelry represented to contain safe levels of lead unless the body piercing jewelry is made of one or more of the following materials:

(1) surgical implant stainless steel; or

(2) surgical implant grade of titanium, niobium (Nb), solid 14-karat or higher white or yellow nickel-free gold, solid platinum, or a dense low-porosity plastic including, but not limited to, Tygon or polytetrafluoroethylene (PTFE), if the plastic contains no intentionally added lead.

(g) The prohibitions under this section do not apply to sales or free distribution of jewelry by a nonprofit organization described in section 501(c)(3) of the Internal Revenue Code or to isolated and occasional sales of jewelry not made in the normal course of business.

Subd. 3. **Testing methods.** (a) The testing methods for determining compliance with this section must be conducted using EPA reference method 3050B or 3051 for the material being tested, except as otherwise provided in subdivision 4 and in accordance with all of the following procedures:

(1) when preparing a sample, the laboratory shall make every effort to ensure that the sample removed from a jewelry piece is representative of the component to be tested, and is free of contamination from extraneous dirt and material not related to the component to be tested;

(2) all component samples must be washed before testing using standard laboratory detergent, rinsed with laboratory reagent-grade deionized water, and dried in a clean ambient environment;

(3) if a component is required to be cut or scraped to obtain a sample, the metal snips, scissors, or other cutting tools used for the cutting or scraping must be made of stainless steel and washed and rinsed before each use and between samples;

(4) a sample must be digested in a container that is known to be free of lead and with the use of an acid that is not contaminated by lead, including analytical reagent-grade digestion acids and reagent-grade deionized water;

(5) method blanks, consisting of all reagents used in sample preparation handled, digested, and made to volume in the same exact manner and in the same container type as samples, must be tested with each group of 20 or fewer samples tested; and

(6) the results for the method blanks must be reported with each group of sample results and must be below the stated reporting limit for sample results to be considered valid.

(b) A material does not meet an applicable lead standard set forth in this section if any of the following occurs:

(1) the mean lead level of one or two samples of the material exceeds 300 percent of the applicable limit for a component;

(2) the mean lead level of three samples of the material exceeds 200 percent of the applicable limit for a component; or

(3) the mean lead level of four or more samples of the material exceeds the applicable limit for a component.

Subd. 4. **Additional testing procedures.** In addition to the requirements of subdivision 3, the following procedures must be used for testing the following materials:

(1) for testing a metal plated with suitable undercoats and finish coats, the following protocols must be observed:

(i) digestion must be conducted using hot concentrated nitric acid with the option of using hydrochloric acid or hydrogen peroxide;

(ii) the sample size must be 0.050 gram to one gram;

(iii) the digested sample may require dilution prior to analysis;

(iv) the digestion and analysis must achieve a reported detection limit no greater than 0.1 percent for samples; and

(v) all necessary dilutions must be made to ensure that measurements are made within the calibrated range of the analytical instrument;

(2) for testing unplated metal and metal substrates that are not a Class 1 material, the following protocols must be observed:

(i) digestion must be conducted using hot concentrated nitric acid with the option of using hydrochloric acid and hydrogen peroxide;

(ii) the sample size must be 0.050 gram to one gram;

(iii) the digested sample may require dilution prior to analysis;

(iv) the digestion and analysis must achieve a reported detection limit no greater than 0.01 percent for samples; and

(v) all necessary dilutions must be made to ensure that measurements are made within the calibrated range of the analytical instrument;

(3) for testing polyvinyl chloride (PVC), the following protocols must be observed:

(i) the digestion must be conducted using hot concentrated nitric acid with the option of using hydrochloric acid and hydrogen peroxide;

(ii) the sample size must be a minimum of 0.05 gram if using microwave digestion or 0.5 gram if using hotplate digestion, and must be chopped or comminuted prior to digestion;

(iii) digested samples may require dilution prior to analysis;

(iv) digestion and analysis must achieve a reported detection limit no greater than 0.001 percent (10 parts per million) for samples; and

(v) all necessary dilutions must be made to ensure that measurements are made within the calibrated range of the analytical instrument;

(4) for testing plastic or rubber that is not polyvinyl chloride (PVC), including acrylic, polystyrene, plastic beads, or plastic stones, the following protocols must be observed:

(i) the digestion must be conducted using hot concentrated nitric acid with the option of using hydrochloric acid or hydrogen peroxide;

(ii) the sample size must be a minimum of 0.05 gram if using microwave digestion or 0.5 gram if using hotplate digestion, and must be chopped or comminuted prior to digestion;

(iii) plastic beads or stones must be crushed prior to digestion;

(iv) digested samples may require dilution prior to analysis;

(v) digestion and analysis must achieve a reported detection limit no greater than 0.001 percent (10 parts per million) for samples; and

(vi) all necessary dilutions must be made to ensure that measurements are made within the calibrated range of the analytical instrument;

(5) for testing coatings on glass and plastic pearls, the following protocols must be observed:

(i) the coating of glass or plastic beads must be scraped onto a surface free of dust, including a clean weighing paper or pan, using a clean stainless steel razor blade or other clean sharp instrument that will not contaminate the sample with lead. The substrate pearl material must not be included in the scrapings;

(ii) the razor blade or sharp instrument must be rinsed with deionized water, wiped to remove particulate matter, rinsed again, and dried between samples;

(iii) the scrapings must be weighed and not less than 50 micrograms of scraped coating must be used for analysis. If less than 50 micrograms of scraped coating is obtained from an individual pearl, multiple pearls from that sample must be scraped and composited to obtain a sufficient sample amount;

(iv) the number of pearls used to make the composite must be noted;

(v) the scrapings must be digested according to EPA reference method 3050B or 3051 or an equivalent procedure for hot acid digestion in preparation for trace lead analysis;

(vi) the digestate must be diluted in the minimum volume practical for analysis;

(vii) the digested sample must be analyzed according to specification of an approved and validated methodology for inductively coupled plasma mass spectrometry;

(viii) a reporting limit of 0.001 percent (10 parts per million) in the coating must be obtained for the analysis; and

(ix) the sample result must be reported within the calibrated range of the instrument. If the initial test of the sample is above the highest calibration standard, the sample must be diluted and reanalyzed within the calibrated range of the instrument;

(6) for testing dyes, paints, coatings, varnish, printing inks, ceramic glazes, glass, or crystal, the following testing protocols must be observed:

(i) the digestion must use hot concentrated nitric acid with the option of using hydrochloric acid or hydrogen peroxide;

(ii) the sample size must be not less than 0.050 gram, and must be chopped or comminuted prior to digestion;

(iii) the digested sample may require dilution prior to analysis;

(iv) the digestion and analysis must achieve a reported detection limit no greater than 0.001 percent (10 parts per million) for samples; and

(v) all necessary dilutions must be made to ensure that measurements are made within the calibrated range of the analytical instrument; and

(7) for testing glass and crystal used in children's jewelry, the following testing protocols for determining weight must be used:

(i) a component must be free of any extraneous material, including adhesive, before it is weighed;

(ii) the scale used to weigh a component must be calibrated immediately before the components are weighed using S-class weights of one and two grams, as certified by the National Institute of Standards and Technology (NIST) of the United States Department of Commerce; and

(iii) the calibration of the scale must be accurate to within 0.01 gram.

Subd. 5. **Additional prohibited substances.** Any substance determined by the United States Consumer Product Safety Commission to be hazardous to persons when used in jewelry shall be regulated as if it were cadmium under this section.

Subd. 6. **Enforcement.** The attorney general shall enforce this section under section 8.31.