

TASK FORCE ON CADMIUM IN CHILDREN'S JEWELRY

Meeting Minutes

Monday, December 8, 2014

2:00 PM in Room 2D of the LOB

I. CONVENE MEETING

- a. Co-Chair Rep. David Baram convened the meeting at 2:13 PM and subsequently recessed the meeting due to late arrivals. Rep. Baram reconvened the meeting at 2:22 PM.

II. REMARKS BY THE CHAIRS

- a. Rep. Baram made initial remarks and recommendations for the task force's final meeting date to provide recommendations and ensure it adheres to state legislation.

III. ROUNDTABLE DISCUSSION: RECOMMENDATIONS TO THE GENERAL ASSEMBLY

- a. Rep. Baram indicated his proposal would include a two-test standard. The first test would be at the discretion of Department of Consumer Protection (DCP) to utilize the 75 parts-per-million (PPM) standard for the surface coating test. If DCP decided not to do the test, they would have to inform a business that the test is available to them. The next test, which would be mandatory which would be the 300 PPM for total content and would have to go through this test even if it passed the 75 PPM discretionary coating test. Rep. Baram noted that the 300 PPM test would fall under ASTM standards, but any other test would be halted if it failed that test. Rep. Baram went onto discuss the enforcement powers granted to DCP relevant to establishing cadmium standards in jewelry, which includes fines for exceeding limits. Finally, Rep. Baram indicated a direct link or webpage that would inform parents about health risks surrounding jewelry/toy ingestion.
- b. Rep. Urban invited Dr. Gary Ginsberg to provide additional perspective to her thoughts on total content and solubility testing. Dr. Ginsberg started by commenting on the PPM for total content, which would be increasing four times from the rate currently in statute. He continued to discuss where this proposal compares and differ from other states and the proposals relation to CPSE standards. Dr. Ginsberg then discussed the 75 PPM coating test. Rep. Urban provided additional commentary to her thoughts on the proposal, noting standards in Europe. Dr. Ginsberg confirmed the total content PPM standard in the E.U., as well as the notion that the policy is being crafted around one-time acute exposures. He stated that there are still associated risks, especially if the rates exceed into the thousands, but long term dietary exposure is low.
- c. Rep. Carter provided an open ended question to be considered for this proposal and its development during the committee process. One of those questions was the impact of establishing 75 PPM and 300 PPM into law, as well as the powers granted to DCP. The other question is to consider the impact or importance of having or not having the solubility testing if it is being done at the border. Rep. Baram made note to Rep. Carter that the lack of consensus among experts on the reliability of the solubility test and statements by Dr. Ginsberg concerns about what solubility testing would assume. Rep. Carter asked a follow up question regarding the solubility testing a good backup or safety-related testing. Dr. Ginsberg provided additional comments to Rep. Carter about the two approaches that can be taken to solubility testing. He noted that the larger a product is the less likely the risk of ingestion, but instead licking/chewing. Dr. Ginsberg also indicated the second test is much different than a total content test which would provide different answers. He added that getting 3,000 PPM is possible under certain circumstances, as was found in Dr. Weidenhamer's data. Dr. Ginsberg closed his remarks by stating that the solubility test fails to address what a child would likely do with a piece of jewelry that is edible in their mouth before accidental ingestion.
- d. Mr. Brent Cleaveland provided his remarks initially on the solubility testing PPM when incorporating simulated mouthing actions. He went on to comment on Rep. Baram's recommendation, saying it is in the right direction with suggested tweaks. Brent Cleaveland then stated that migration testing is the only way to assess health and safety purpose. He went on to discuss the 75 PPM that is currently in place on a delayed schedule and provided an example to the task force noting total content versus migration. Dr. Ginsberg asked Brent Cleaveland about which test would be used on the sample jewelry piece he showed to the task force. Brent Cleaveland stated if this piece was given the XRF test and it had 70 PPM it would pass. Dr. Ginsberg added it would be based upon the size. Brent Cleaveland responded that the XRF test does not measure size, but percentage. Dr. Ginsberg reiterated his question about which test (acid or solubility) would the piece of jewelry have to be tested under based on ASTM standards. Brent Cleaveland responded that it would not need

the secondary test because it would have passed the first test. Dr. Ginsberg noted his response to Rep. Carter earlier that a piece comparable to the size shown today would not be swallowed or if ingested would get caught in the esophagus, which would require surgical removal. Brent Cleaveland stated that if the piece were broken it poses the risk of swallowing. He went on to reiterate the point he had made previously that this piece would require an XRF test to determine its contents on a percentage basis and an acid digestion or migration test to determine the health or safety risk. Rep. Carter asked Brent Cleaveland about what would occur if the sample piece had 3,000 PPM that was not noted on the initial tests because it had a heavy surface coating. Rep. Carter added to his question to Brent Cleaveland whether he has seen manufacturers use higher levels of cadmium and heavier surface coatings to make up for the increased levels of cadmium. Brent Cleaveland responded that if you marred pieces with a thicker surface coating it would only expand the surface area of the jewelry. Brent Cleaveland further discussed the usage of cadmium to thin out solders, to reduce viscosity, and in certain dyes. He stated that its use in dyes is minimal to non-existent and summarized how cadmium is generally created as a byproduct.

- e. Dr. Ginsberg provided additional comment regarding the intent of the study on children's jewelry safety and cadmium exposure to marred products by Dr. Weidenhamer. Brent Cleaveland responded to Dr. Ginsberg's remarks regarding third-party testing, CPSC monitoring at the borders and the level of effort undertaken by CPSC to prevent the sale of products that would necessitate a recall.
- f. Rep. Vargas discussed his history in the education systems when lead became a substantive issue, noting the enforcement of a zero-tolerance policy on heavy metals present in schools. He stated that ideally that standard should be applied to this proposal or the recommendations Rep. Urban had proposed, but noted the necessity to strike a balance and compromise with all sides.
- g. Rep. Esposito noted who the fines would be imposed upon would be his primary question and concern about the proposal. Rep. Esposito added that Rep. Baram's proposal seemed most palatable to everyone and matches California standards. Rep. Baram responded that he had a lack of certainty on what the fines would consist of and who it would apply to. Mr. Maloney added that this provision may fall under the State Child Protection Act rather than standalone provision. Rep. Baram asked Mr. Maloney to elaborate on the State Child Protection Act. Mr. Maloney elaborated on the use of the State Child Protection Act and other federal or state acts that could have a potential relation to the proposed recommendations to the General Assembly. Rep. Baram asked Mr. Maloney if these proposed recommendations, if put into law, would also fall under the Connecticut Unfair Trade Practices Act. Mr. Maloney responded that it would also fall under that Act as well.
- h. Rep. Baram asked of Dr. Ginsberg to clarify the difference between percentages versus PPM total content. Dr. Ginsberg provided clarification to the task force regarding the limitations of how much total cadmium is in the child's environment and what is ingestible and poses a risk of internal exposure varies on the size of the product. He added that those products then could fall under extraction through a soluble, or a 'licking' test. Dr. Ginsberg concluded his remarks by reiterating that pieces with high concentrations of cadmium would likely not enter the system because they would be too large as is, but marred, smaller pieces can pose similar risks if ingested. Rep. Baram asked Dr. Ginsberg a follow up question about the toxicology standard the difference between 100 PPM to 300 PPM. Dr. Ginsberg stated there is a large variability due to factors such as diet, length of time in the stomach; however utilizing Weidenhamer study and calculating 300 PPM the level of exposure would be within the safe level.
- i. Brent Cleaveland asked Dr. Ginsberg if he would exclude certain components like miniscule amounts of paints applied to small charms. Dr. Ginsberg responded that he had not looked into it, but it would depend on if the paint can be picked up by the XRF testing. He added that if the proposal specifically stated the level of paint necessary to do component tests, it could be considered. Brent Cleaveland added such a proposal would save time for testers and noted California's law also allow for crystals on a piece to be exempted because cadmium in the crystal would not be bioavailable. Brent Cleaveland addressed the Weidenhamer study, noting the testing Dr. Weidenhamer performed did not test component parts. In addition, he discussed ASTM standards. Rep. Baram asked Brent Cleaveland regarding the exemptions he cited in other states such as crystals. Brent Cleaveland provided an example of ingestion of a marble not allowing for exposure because the human body cannot digest glass, which includes rhinestones. Rep. Baram asked Mr. Cleaveland for clarification regarding 200 PPM for solubility test and whether it could be applied to total content as well. Brent Cleaveland responded that he feels it doesn't add anything to the safety aspect.

- j. Ms. Kathleen Queen provided her comments to the task force, highlighting the need to prioritize the health and safety of children that are at greatest risk. Kathleen Queen also commented on the desire to have uniformity and asked the group whether we could adopt a lower number, such as 100 PPM so we are in sync with the European Union (E.U.). Brent Cleaveland noted E.U. standards being higher than the U.S. on lead and the continued difficulties to uniformity between standards. Rep. Urban asked Brent Cleaveland about the alternatives to cadmium Dr. Bruckner provided at previous meeting being likely avoided due to cost. Brent Cleaveland responded that the industry supports no additional cadmium besides what is in the casting alloys during the manufacturing process. Dr. Ginsberg interjected to ask what the industry would tolerate in terms of natural cadmium in their products. Brent Cleaveland noted that much of what is used for production is often recycled metals from older pieces and not newly produced raw materials, resulting in the occurrence of higher rates. He added that zinc used to be expensive because it could only be used in steel casts; however the industry has developed high-temperature rubbers that make zinc more affordable to use. Rep. Urban asked for clarification on the purpose of using cadmium noting prior discussions that stated cadmium was used because of its low melting point and its shiny composition. She also asked for confirmation that cadmium is now only used if it is necessary. Brent Cleaveland confirmed cadmium is only used if it is absolutely necessary and clarified that cadmium lowers the viscosity of the metal so that when the metal is poured into a casts with certain designs it can make it to all the crevices and holes to get a fill. He added design changes to casts have decreased the necessity for cadmium.
- k. Rep. Carter raised a question about the PPM standards being proposed and referenced a World Health Organization report on daily natural interactions people have with cadmium. Dr. Ginsberg gave a response to Rep. Carter's comments on the acute exposure on a daily basis that is viewed as a non-toxic. Dr. Ginsberg offered to provide calculations around those factors to impact the proposal.
- l. Rep. Vargas inquired as to the industry acceptance for 200 PPM. Rep. Baram responded that that standard was specific to migration testing.

IV. OTHER BUSINESS

- a. Rep. Baram noted the next meeting would be in the first week of January and indicated it would likely be the final meeting.

V. ADJOURNMENT

- a. The meeting was adjourned at 3:53 PM.