US Consumer Product Safety Commission
Log of Meeting

Subject: ASTM F15.22 – Emerging Hazards Working Group Meeting

Date: Thursday, March 2, 2023
Location: Teleconference
Prepared By: Benjamin Mordecai (bmordecai@cpsc.gov, 301-987-2506), March 16, 2023

CPSC Attendees: Benjamin Mordecai, Brian Baker, Susan Bathalon, Jacqueline Campbell, Jill Hurley, Ashley Johnson, Matthew Kresse, Daniel Taxier, Suad Wanna-Nakamura

Non-CPSC Attendees: Contact Molly Lynyak of ASTM for a complete list of attendees.

Summary of Meeting:
The WG met to discuss expanding materials, primarily water beads, and ride-on toys.

Expanding Materials (Water Beads):
The meeting opened with a discussion on water beads, introducing CPSC staff's letter,[1] and explaining that when the hazard was introduced into the standard, back in 2016, the focus was on ingestion and life-threatening hazards. At that time, the test fixture was based on the anatomy of an 18-month child's pyloric sphincter. Now the CPSC has identified bowel obstruction incidents in younger children. CPSC staff raised a comment from the 2016 staff briefing memo that suggested the pyloric sphincter may not be the most appropriate anatomical structure to base the test fixture and that a smaller size gauge should be researched. Participants asked staff for more details on this proposal. Staff will pass along a link to the document.

A participant from a test laboratory and the task group chair both confirmed that the test applied to all expanding toys regardless of age. Water beads are small parts as received and some products on the market may not have the required warning, or are not intended to be toys, such as décor or to retain water for plants and floral arrangements. Participants stated that water beads from at least one manufacturer were removed from the market. In the past, staff had spoken to the task group chair about the properties of the water beads and mentioned testing performed by test labs and staff's experimental testing with different solutions. CPSC staff also discussed the difficulty of the test method while handling fragile expanded water beads. When measuring with calipers, the surface of the water beads can become scored, resulting in water beads that do not survive the conditioning cycle. When applying the force to push the water beads through, they break apart as opposed to compressing.

CPSC staff discussed the types of hazards in the data, including ingestion, inhalation, nasal cavity insertion, and ear canal insertion. The task group chair was unaware of the severity of incidents involving ear canal insertions that caused hearing loss and injury to the structures of the ear and asked staff for more details. Participants all wanted more information about the incident

[1] https://www.cpsc.gov/s3fs-public/2-7-23-Letter-to-ASTM-Expanding-Materials.pdf?VersionId=J6C99JbHigMfjRMQRBP_NO85vcvftuq9

data, asking if the incidents involved toys (or other types of water beads), if those toys were in compliance with the current toy standard, the age of victim, and if the product was purchased for an older sibling.

A participant raised many concerns with water beads including size, younger siblings of children the toy was purchased for, and its ability to bounce, roll, and hide. She spoke about the chemical properties of the products, specifically acrylamide, and how it changes depending on where it is in the body. She spoke about having seen incidents in her research involving 'superbeads' where several smaller beads were able to form together and create a blockage. She asked about the migration limit of chemicals in toys and offered her knowledge of FDA and EPA's migration limits of chemicals in food and cosmetics. She offered to share the research that she has collected and the paper she wrote with the group. Staff requested a collaboration site. The task group chair confirmed that the FHSA is incorporated by reference in the F963 standard. A participant noted that the toy standard does not take into consideration the chemicals interaction in the body as it passes through.

A participant noted that water beads are banned in Maylasia, UK, Thailand, Turkey & Italy.

Participants stated that ISO 8124 adopted F963 test requirements and EN 71 was in the process of adopting.

Action items: CPSC staff will review incident data for toy/non-toy, compliant or not, age of children, age grade of toy, and other relevant information. CPSC staff will also send a link to the 2016 F963 briefing package. The task group chair wants to talk with manufacturers about residual acrylamide, migration and pliability of membrane. Participants plan to share research data within the group.

Ride-On Toys:
The working group began discussion with CPSC staff's letter.[2] Participants noted the overlap with ANSI/SVIA and while the task group agreed to work on a definition of ride on toys, they felt this was not only a toy issue and would like the ATV industry to participate. For example, "off-highway" needs to be defined.

Staff suggested to start with the toy standard, and mentioned CPSC has been actively working with ATV issues.

Staff spoke of differences in toys versus ATV (eg, tires), and that speed cannot be the only factor considered. Staff suggested the toy standard should start with the ATV definition in 16 CFR §1420.2 when trying to define ride-on toys.

Action Item: A call for a new workgroup devoted to ride-on toys will take place at the next subcommittee meeting to work on a definition and with characteristics.

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[2] https://www.cpsc.gov/s3fs-public/11-2-22-Letter-to-ASTM-Ride-on-Toys.pdf?VersionId=L9KuHl42Zka8PyXnAn91FObWn4ZgDF44

Next Steps: The next subcommittee meeting is scheduled for March 20th at 1:00.