



August 19, 2024

Ms. Joan Lawrence  
ASTM Subcommittee Chair for F15.22, Toy Safety  
ASTM International  
100 Barr Harbor Drive  
West Conshohocken, PA 19428

Dear Ms. Lawrence:

I am writing to convey U.S. Consumer Product Safety Commission (CPSC) staff's opposition to Ballot F15.22 (24-01) Item 1, which contains proposed revisions to the ASTM F963 – 23, Standard Consumer Safety Specification for Toy Safety, expanding materials section.<sup>1</sup>

CPSC staff appreciates ASTM's work on expanding materials, specifically water beads, that has followed three CPSC letters<sup>2</sup> dated February 7, 2023, June 20, 2023, and November 28, 2023. In those letters, staff provided data on ingestions, choking, ear canal insertions, nasal cavity insertions, and aspirations related to water bead toy products.

The ASTM ballot proposes that an unexpanded water bead that fits within the small parts cylinder and expands more than 50 percent of its original size must now pass through a gauge 12 mm in diameter with a reduced 0.1 lb. force applied by a flat ended 10 mm diameter rod. This differs from, the CPSC staff's draft notice of proposed rulemaking (NPR), Notice of Proposed Rulemaking: Requirements for Water Beads,<sup>3</sup> dated July 31, 2024, which proposes that a water bead must pass through a 9 mm diameter gauge without the force of a push rod. The draft NPR also states that a water bead cannot expand more than 50 percent from its original, pre-expanded size, a requirement currently found in EN-71, *Safety of Toys – Part 1: Mechanical and Physical Properties*.

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<sup>1</sup> The views in this letter are those of the staff and have not been reviewed or approved by, and may not reflect the views of, the Commission.

<sup>2</sup> [https://www.cpsc.gov/s3fs-public/2-7-23-Letter-to-ASTM-Expanding-Materials.pdf?VersionId=J6C99JbHigMfjRMQRBP\\_NO85vcvftuq9](https://www.cpsc.gov/s3fs-public/2-7-23-Letter-to-ASTM-Expanding-Materials.pdf?VersionId=J6C99JbHigMfjRMQRBP_NO85vcvftuq9)  
<https://www.cpsc.gov/s3fs-public/Letter-to-ASTM-on-Expanding-Materials-6-20-23.pdf?VersionId=9nVJdkztyeLneePq8CJeak9ygfPHvjMz>  
<https://www.cpsc.gov/s3fs-public/Water-Bead-Letter-to-ASTM.pdf?VersionId=CDUhfd2.4wIE8vc0XTaHZQAzjBXhELY>

<sup>3</sup> <https://www.cpsc.gov/content/Briefing-Package-Notice-of-Proposed-Rulemaking-Requirements-for-Water-Beads>



While the proposed requirements in the ballot are more stringent than the current requirements in ASTM F963 – 23, CPSC staff assesses that they are not stringent enough to protect children against the known hazards from ingestion and insertion of water beads, as described in draft NPR. Specifically, in the draft notice of proposed rulemaking (NPR), staff outlined why ASTM's proposal to allow water beads that break apart when pushed with a rod to be considered as passing is inconsistent with incident data, which show that water beads do not break apart in the digestive tract and remain whole, creating the potential for blockages while attempting to pass through the digestive tract.

Additionally, the ASTM ballot proposal only applies to accessible water beads, not water beads encased in a barrier intended to prevent accessibility. Staff's view (as stated in the draft NPR) is that accessibility cannot properly be made a factor because there are no accessibility requirements proposed in the ballot. For instance, a stress ball utilizing water beads can break, exposing children to the hazards identified in the letters.

Finally, the ballot does not propose limitations on the presence of acrylamide in water beads, nor does the ballot propose warning label requirements. In contrast, the draft NPR proposes requirements addressing the presence of acrylamide and the including of warnings. Therefore, CPSC staff votes negative on the ASTM ballot.

Thank you for your continued work to revise and improve toy safety through ASTM F963.

Sincerely,

Benjamin Mordecai, Mechanical Engineer  
Project Manager, F963  
*Directorate for Laboratory Sciences*

Cc: Molly Lynyak, ASTM F15 Staff Manager  
Jos Huxley, Senior Vice President of Technical Affairs  
Don Mays, ASTM F15 Chair  
Jacqueline Campbell, CPSC Voluntary Standards Coordinator  
Daniel Taxier, CPSC Children's Program Manager



United States  
**Consumer Product Safety Commission**

**U.S. Consumer Product  
Safety Commission**  
4330 East-West Highway  
Bethesda, MD 20814  
[cpsc.gov](http://cpsc.gov)

**National Product Testing  
& Evaluation Center**  
5 Research Place  
Rockville, MD 20850