

To Whom It May Concern,

It has come to my attention that you may be using water beads in your facility. These water beads are often marketed and sold under various brand names as Orbeez, Marvel Beads, Chuckle and Roar, Water Marbles, super absorbent polymer balls. While these water beads are currently being marketed and sold as children's toys promoted as aiding in sensory development, these products were originally sold as agricultural products, to be placed in soil to promote soil absorption and as decorative vase filler.

The gel beads themselves are made of super-absorbent polymers, which expand when they come into contact with fluids such as water. The Poison Control agency has stated that some of these beads can expand to hundreds of times their original size. Many if not most of the beads are marketed as "non-toxic", "biodegradable", "eco-friendly" these labels are essentially unregulated and can be misleading. Some if not all of the beads can be contaminated with potentially dangerous and toxic materials, such as acrylamide and BPA (1). Acrylamide has been found to cause cancer in animals, and can result in muscle weakness, numbness, and other neurological injuries or abnormalities when exposed to humans. According to the International Agency for the Research on Cancer ("IARC"), acrylamide is "probably carcinogenic to humans."

The American Academy of Pediatrics (AAP) and Canadian Paediatric Society have issued warnings about the dangers posed by water beads, which resemble candy and present a significant ingestion risk to children (2, 3). These beads can expand inside the body upon ingestion, leading to life-threatening blockages that are hard to diagnose due to difficulties visualizing the beads on X-rays, which can result in delayed diagnosis and treatment (4). Beyond the risk of ingestion, there have been instances where children have inserted water beads into their ears, causing hearing loss, into their nasal cavities, necessitating surgical removal, and inhaled beads into their lungs, causing lung damage (5). These hazards exist despite careful adult supervision and exclusive use of the beads with older children. The ability of water beads to roll, bounce, and hide in carpets, baseboards, and under furniture means that injuries can manifest long after the beads were last used, with delays ranging from days to months, and sometimes years.

In addition to bowel obstruction, the ingestion, inhalation, and insertion of water beads has been associated with numerous incidents involving hospitalization and injury. The Consumer Product Safety Commission (CPSC) estimates that over 7,800 children have been treated in emergency rooms between 2016 and 2022 (6). Despite the risks of bowel obstruction, death, and other health hazards, the warning labels on many, if not most, water bead toy products do not adequately warn consumers about these dangers (7).

For all the above reasons, water beads are dangerous and pose a risk of serious injury or death to children. I do not consent to water beads being used with my child. Please immediately stop using water beads with my child and at your facility as a whole.

Sincerely,

2. Water beads: Harmful if swallowed, put in ears. HealthyChildren.org. Accessed February 28, 2024. https://www.healthychildren.org/English/safety-

<sup>1.</sup> Moritz M, Cienfuegos L. San Antonio mom feels vindicated after tests show water beads can be toxic. KSAT. December 14, 2023. Accessed February 28, 2024. https://www.ksat.com/news/local/2023/12/14/san-antonio-mom-feels-vindicated-after-tests-show-water-beads-can-be-toxic/.

prevention/at-home/Pages/Water-Beads-Harmful.aspx

<sup>3.</sup> Society CP. Sensory water beads: What parents and caregivers should know. Canadian Paediatric Society. Accessed February 28, 2024. https://cps.ca/en/blog-blogue/sensory-water-beads-what-parents-and-caregivers-should-know.

<sup>4.</sup> Water bead safety: University health. University Health System. Accessed February 28, 2024. https://www.universityhealth.com/services/trauma/injury-prevention/water-beads.

<sup>5.</sup> Kirchner L. Water beads pose a serious safety risk to children - Consumer Reports. Nobody Should Lose Their Child Over a Toy. September 21, 2023. Accessed February 28, 2024. https://www.consumerreports.org/babies-kids/toys/water-beads-pose-a-serious-safety-risk-to-children-a6431187819/.

<sup>6.</sup> Water beads. U.S. Consumer Product Safety Commission. Accessed February 28, 2024. https://www.cpsc.gov/Safety-Education/Safety-Education-Centers/Water-Beads-Information-Center.

<sup>7.</sup> Kirchner L. Orbeez water beads don't come with adequate warnings, parents allege ... Orbeez Water Beads Don't Come With Adequate Warnings, Parents Allege. November 29, 2023. Accessed February 28, 2024. https://www.consumerreports.org/babies-kids/toys/orbeez-water-beads-lack-adequate-warnings-lawsuit-a1185822530/.