

Department of Health and Social Services

Karleen Jackson, Commissioner
Jay Butler, MD, Chief Medical Officer

3601 C Street, Suite 540
Anchorage, Alaska 99503

<http://www.epi.Alaska.gov>

Division of Public Health

Beverly Wooley, Director

Local telephone number 907-269-8000
24 Hour Emergency 1-800-478-0084

Editors:

Joe McLaughlin, MD, MPH
Bradford D. Gessner, MD, MPH

Bulletin No. 34 November 16, 2007

Potential Contamination of Children's Toy "Aqua Dots" with 1,4-Butanediol

Background

The Consumer Products Safety Commission has issued a recall of the children's toy "Aqua Dots" distributed by Spin Master of Toronto, Canada (Figure 1). The toy is potentially contaminated with 1,4-butanediol (1,4-BD), a known in-vivo precursor to gamma-hydroxybutyrate. Gamma-hydroxybutyrate, commonly described as a date rape drug, is also used for recreational purposes as a depressant and has legitimate medical use in the treatment of some sleeping disorders.

Figure 1. Aqua Dots Toys*



*Photo from the Consumer Products Safety Commission Recall

Aqua Dots have widespread distribution in the United States through Toys R Us, Wal-Mart and many Internet retail sites and were sold in Alaska during 2007. The manufacturer has requested that distributors pull all stocks of this product from shelves. In Anchorage, for example, Wal-Mart stores have removed products from shelves and placed a placard notifying the public of the recall.

Exposure

Two exposure scenarios are possible:

- accidental ingestion by young children using the toy, and
- intentional ingestion by recreational users.

The popular press has reported accidental bead ingestion. When using the toy, children handle small beads coated with a dried glue. Spraying the formed bead art with water activates the glue. Because the beads are coated with glue and activated with water, hands may become

contaminated by touching the drying bead art and inadvertent ingestion of glue contaminants could occur.

As of Thursday, November 15, 2007 the United States had reported two exposures and Australia four. The Alaska Poison Control Center is monitoring incidences.

Laboratory Testing in Alaska

The Alaska State Public Health Laboratory (ASPHL) in Anchorage can analyze blood specimens for 1,4-BD, one of a series of glycols included in the ASPHL glycol analytical panel. ASPHL provides emergency testing for ethylene glycol and toxic alcohols to Alaska Hospitals. Alaska hospital laboratory staff have after-hours contact information for ASPHL on-call staff.

Recommendations

1. Health care providers who suspect 1,4-BD intoxication should immediately consult with a toxicologist at the Alaska Poison Control Center at 1-800-222-1222, available 24-hours per day.
2. For blood analysis, collect at least two mL of blood in a single green (Na-Heparin), lavender (EDTA), or red top Vacutainer tube. Pediatric tubes are also acceptable. Do not collect the specimen in a serum separator tube.
3. Hospitals may submit a request for 1,4-BD analysis to ASPHL through their in-house laboratories.
4. Other Alaska health care providers may contact ASPHL directly at 907-334-2100, and request to speak with one of the chemistry staff.

Additional Resources

Additional information regarding this product recall and the hazards of 1,4-BD can be obtained from the following sources:

1. Environmental Health Program at 907-269-8000, available Monday through Friday, 8AM-5PM.
2. Manufacturer Recall Notice, available at: <http://www.spinmaster.com/aquaDots.html>
3. U.S. Consumer Products Safety Commission Recall, available at: <http://www.cpsc.gov/cpsc/pub/prerel/prhtml08/08074.html>