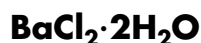


CLIP, Chemical Laboratory Information Profile

"Only when you know the hazards, can you take the necessary precautionary measures."

Barium Chloride Dihydrate**CAS No.: 10326-27-9**

Synonyms: none known

Physical Properties

A moderately dense, odorless, soluble white solid.
 Vapor pressure at 20 °C: negligible
 Melting point: 960 °C
 Boiling point: 1560 °C
 When heated, appears to melt at 113 °C as the hydrate loses water.

Exposure Limits

OSHA PEL: 0.5 mg/m³ (as barium)
 ACGIH TLV: 0.5 mg/m³ (as barium)

Hazardous Characteristics

Overall toxicity	Flammability	Destructive to skin/eye	Absorbed through skin	Sensitizer?	Self-reactive?	Incompatible with:
3	0	1	0	No	No	No known significant incompatibilities.

0: None (or very low); 1: Slight; 2: Moderate; 3: High; 4: Severe.

Cited as known to be or reasonably anticipated to be carcinogenic in NTP-9?

No

Identified as a reproductive toxin in Frazier

and Hage, *Reproductive Hazards of the Workplace?* These authors state: "Insufficient data".

Typical symptoms of acute exposures:

Eye irritation, tearing pain. Gastroenteritis, nausea, vomiting, muscle spasm, slow pulse. Tingling sensation in the extremities. Cardiac arrhythmia, paralysis, possible death.

Principal target organ(s) or system(s):

Respiratory system, heart, central nervous system, kidneys.

Storage Requirements

With other poisons in a cool, dry, well-ventilated and locked location.

Additional Remarks

Barium chloride can be absorbed into the body by inhalation and/or by ingestion. It is a mild skin irritant. The barium ion is considered to be a muscle poison; via the central nervous system it first stimulates affected muscles and then causes paralysis. The symptoms of barium poisoning are attributed to a barium ion-induced hypokalemia, probably due to a transfer of potassium from extracellular to intracellular components.

Notes**ReadMe**

This Chemical Laboratory Information Profile is *not* a Material Safety Data Sheet. It is a brief summary for teachers and their students that describes some of the hazards of this chemical as it is typically used in laboratories. On the basis of your knowledge of these hazards and before using or handling this chemical, *you need to select the precautions and first-aid procedures to be followed.* For that information as well as for other useful information, refer to Material Safety Data Sheets, container labels, and references in the scientific literature that pertain to this chemical.

Reproductive Toxins

Some substances that in fact are reproductive toxins are not yet recognized as such. For the best readily available and up-to-date information, refer to "DART/ETIC". See the TOXNET home page at www.sis.nlm.nih.gov and click on "Toxicology search". *Note that some of the data in DART/ETIC have not been peer-reviewed.* See also Linda M. Frazier and Marvin L. Hage, *Reproductive Hazards of the Workplace*; Wiley, 1998; and T. H. Shepard, *Catalog of Teratogenic Agents*, 9th ed.; Johns Hopkins University Press, 1998.

Abbreviations

ACGIH TLV—American Conference of Governmental Industrial Hygienists—Threshold Limit Value. C—Ceiling. CAS—Chemical Abstracts Service. mg/m³—milligrams per cubic meter. NA—Not applicable. NE—Not established. NI—No information. NTP-9—National Toxicology Program, Ninth Annual Report on Carcinogens. OSHA PEL—Occupational Safety and Health Administration—Permissible Exposure Limit. ppm—parts per million. STEL/C—Short-term exposure limit and ceiling.

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