

Common Name: **CADMIUM BROMIDE**

Synonyms: Cadmium Dibromide

CAS No: 7789-42-6

Molecular Formula: CdBr_2

RTK Substance No: 0307

Description: White to yellowish, odorless, crystalline solid which changes to a powder on exposure to dry air

HAZARD DATA

Hazard Rating	Firefighting	Reactivity
4 - Health 0 - Fire 0 - Reactivity DOT#: UN 2570 ERG Guide #: 154 Hazard Class: 6.1 (Poison)	Extinguish fire using an agent suitable for type of surrounding fire. Cadmium Bromide itself does not burn. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Cadmium Oxide</i> and <i>Hydrogen Bromide</i> . Use water spray to keep fire-exposed containers cool. Cadmium Bromide may ignite combustibles (wood, paper and oil).	A mixture of Cadmium Bromide and POTASSIUM may explode on impact. Cadmium Bromide reacts with SULFIDES, and will form <i>Acids</i> in WATER. Cadmium Bromide is not compatible with SULFURIC ACID; ALKALI; AMMONIA; AMINES; AMIDES; EPICHLOROHYDRIN; ISOCYANATES; NITROMETHANE; and VINYL ACETATE.

SPILL/LEAKS

Isolation Distance:

Spills: 25 meters (75 yards)

Fire: 800 meters (1/2 mile)

Moisten spilled material first or use a HEPA-filter vacuum for clean-up.

Collect powdered material in the most convenient and safe manner and deposit in sealed containers.

DO NOT wash into sewer.

Toxic to aquatic organisms. Hazardous to the environment and persists in the environment.

PHYSICAL PROPERTIES

Odor Threshold:	Odorless
Flash Point:	Nonflammable; dust may be explosive
Specific Gravity:	5.2 (water = 1)
Water Solubility:	Soluble
Boiling Point:	1,585°F (863°C) (decomposes)
Freezing Point:	1,053°F (567°C)
Molecular Weight:	272.22

EXPOSURE LIMITS

OSHA:	0.005 mg/m^3 , 8-hr TWA
NIOSH:	Lowest feasible concentration
ACGIH:	0.01 mg/m^3 , 8-hr TWA (total particulate) 0.002 mg/m^3 , 8-hr TWA (respirable fraction)
IDLH:	9 mg/m^3 (All of the above are for <i>Cadmium</i>)

PROTECTIVE EQUIPMENT

Gloves:	Nitrile and Neoprene
Coveralls:	DuPont Tyvek®
Respirator:	>0.005 mg/m^3 - APR with High efficiency filters >0.05 mg/m^3 - Supplied air

HEALTH EFFECTS

Eyes:	Irritation
Skin:	Irritation
Inhalation:	Nose, throat and lung irritation with coughing and shortness of breath Nausea, vomiting, headache, fever and chills, aches, and chest tightness
Chronic:	<i>Cadmium</i> and <i>Cadmium compounds</i> cause lung and prostate cancer in humans

FIRST AID AND DECONTAMINATION

Remove the person from exposure.

Flush eyes with large amounts of water for at least 15 minutes. Remove contact lenses if worn.

Remove contaminated clothing and wash contaminated skin with water.

Begin artificial respiration if breathing has stopped and CPR if necessary.

Transfer to a medical facility.

Medical observation is recommended as symptoms may be delayed.