

Common Name: **CADMIUM HYDROXIDE**

Synonyms: Cadmium Hydrate

CAS No: 21041-95-2

 Molecular Formula: CdH₂O₂

RTK Substance No: 4089

Description: White powder

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 Hydroxide itself does not burn. POISONOUS GASES ARE PRODUCED IN FIRE, including <i>Cadmium Oxide</i> . Use water spray to keep fire-exposed containers cool. Cadmium Hydroxide may ignite combustibles (wood, paper and oil).	<i>Cadmium dust</i> may be a fire or explosion hazard when exposed to HEAT; FLAME; SULFUR; OXIDIZING AGENTS (such as PERCHLORATES, PEROXIDES, PERMANGANATES, CHLORATES, NITRATES, CHLORINE, BROMINE and FLUORINE; SELENIUM, TELLURIUM, AMMONIA; and METALS (such as ZINC, POTASSIUM and MAGNESIUM)).

SPILL/LEAKS
Isolation Distance:

Small Spills: 25 meters (75 feet)

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.

Severe marine pollutant.

PHYSICAL PROPERTIES
Odor Threshold: No information

Flash Point: Nonflammable

Specific Gravity: 4.8 (water =1)

Water Solubility: Insoluble

Boiling Point: No information

Freezing Point: No information

Molecular Weight: 146.4

EXPOSURE LIMITS
OSHA: 0.005 mg/m³, 8-hr TWA

NIOSH: Lowest feasible concentration

ACGIH: 0.01 mg/m³, 8-hr TWA (total particulate)

 0.002 mg/m³, 8-hr TWA (respirable fraction)

IDLH: 9 mg/m³

 (All of the above are for *Cadmium*)

PROTECTIVE EQUIPMENT
Gloves: Nitrile and Neoprene

Coveralls: DuPont Tyvek®

Respirator: >0.005 mg/m³ - APR with High efficiency filters
 >0.05 mg/m³ - Supplied air

HEALTH EFFECTS
Eyes: Irritation

Skin: Irritation

Inhalation: Nose, throat and lung irritation with coughing and/or shortness of breath
 Nausea, vomiting, headache, fever and chills, aches, and chest tightness

Chronic: Carcinogen - *Cadmium* and *Cadmium compounds* 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 soap and 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.