

# MATERIAL SAFETY DATA SHEET

MSDS Date: 6/12/01

## Reagent A

Emergency Telephone #

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**1-800-424-9300**

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International

### I. PRODUCT IDENTIFICATION

CATALOG NO: 01-REAGENT-A  
PRODUCT NAME: Reagent A  
CAS NO: 7789-78-8  
CHEMICAL NAME: Calcium Hydride  
CHEMICAL FAMILY: Hydrides  
FORMULAS: CaH<sub>2</sub>  
UN Number UN1404

### II. INGREDIENTS

Calcium Hydride  
PCL: 100 CAS NO: 7789-78-8  
TLV: Not established SARA: Not Listed  
PEL: Not established RCRA: D003  
HAZARD: Causes burns to wet tissue;  
flammable

### III. PHYSICAL DATA

STATE: Solid APPEARANCE: Gray Powder  
ODOR: None ACID: Decomposes  
SOLUBILITY IN: Water: Decomposes  
OTHER: Not Determined BOILING POINT: NA  
MELTING POINT: 675C decomposes  
SPEC GRAVITY: 1.7 pH: Not Available  
VAPOR PRESSURE: Not Applicable  
VAPOR DENSITY: NA  
EVAPORATION RATE: NA  
METAL CORROSIVITY - ALUMINUM: ND  
STEEL: ND STABILITY: Stable  
STORAGE PRECAUTIONS: Store in a cool, dry place away  
from oxidizers.

### IV. FIRE, EXPLOSION HAZARD AND REACTIVITY DATA

FLASH POINT: Not Applicable  
SUSCEPTIBILITY TO SPONTANEOUS HEATING:  
In contact with moisture or water.  
EXTINGUISHING MEDIA: Dry chemical/dolomite  
(powdered limestone)  
FIRE/EXPLOSION HAZARDS: Evolves flammable  
hydrogen gas; violent reaction with oxidizers;  
fires may reignite when extinguished.  
HAZARDOUS DECOMPOSITION PRODUCTS:  
flammable hydrogen gas in fire or in contact with  
water or acids.  
OXIDIZER: No  
NFPA CODES: Health: 3 Flammability: 2 Reactivity: 2  
CONDITIONS TO AVOID: Heat, flames: contact with  
moisture, acids, halogens, lower alcohols, or  
oxidizers.

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### V. HEALTH HAZARD DATA

THIS PRODUCT MAY BE: Corrosive to eyes, wet skin  
and respiratory tract.  
ACUTE TOXICITY: TOXIC DUE TO CORROSIVITY  
ROUTES OF EXPOSURE: Ingestion, inhalation,  
contact.  
TARGET ORGANS: All body tissues.  
OVEREXPOSURE: Causes burns to moist tissue, due to  
caustic calcium hydroxide.

### VI. PRECAUTIONARY MEASURES

Protect from moisture. Keep away from oxidizers. Wash  
thoroughly after handling. Avoid contact with eyes, skin, and  
clothing. Do not breath chemicals

Protective Equipment: Lab grade goggles, lab coat, rubber  
gloves, fume hood.

### VII. FIRST AID

Eye and Skin Contact: Immediately flush eyes with water for  
15 minutes. Call physician. Wash skin with soap and plenty  
of water.

Ingestion: Do not induce vomiting. Give large quantities of  
water. Give at least 1 ounce of vinegar in an equal amount  
of water. Never give anything by mouth to an unconscious  
person. Call physician.

Inhalation: Remove to fresh air. Give artificial respiration if  
necessary. Call physician.

### VIII. SPILL AND DISPOSAL PROCEDURES

In Case of Spill or Release: Mix with dry sand to avoid or  
stop fire. Scoop into bucket and remove to open area.  
Slowly spray with dry butyl alcohol. Later add water by  
fogging until last of hydride is destroyed. Scoop the solid  
into a large container and neutralize with 3M HCl if  
necessary. Let settle. Decant and flush to the sewer with  
excess water. Send sand residue to a landfill.

### IX. TRANSPORTATION DATA

Proper Shipping Name: Calcium Hydride  
Hazard Class: 4.3 Dangerous When Wet  
Group: I  
Number: UN1404