

MATERIAL SAFETY DATA SHEET

I. PRODUCT INFORMATION

TRADE NAME (as labeled):

LD

DATE PREPARED/REVISED:

September 11, 1996

MANUFACTURER'S NAME:

Hydro Engineering, Inc.
865 West 2600 South
Salt Lake City, Utah 84119

PHONE NUMBER(S):

801/972-1181 In Utah
800/247-8424 Toll Free

II. HAZARDOUS INGREDIENTS

Chemical Names	CAS Numbers	Percent	Exposure Limits in Air (give units)	
			ACGH TLV	OSHA PEL
Other (specify)				
Sodium Hydroxide	1310-73-2	< 10	2 mg/m ³	(dust or mist)
Cyclohexanone	108-94-1	< 10	25 ppm (skin)	25 ppm (skin)
Furfuryl alcohol	98-00-00	< 20	10 ppm (skin)	25 ppm (skin)

III. PHYSICAL PROPERTIES

Vapor density (air=1): > 1

Specify gravity (H₂O=1): 1.12

Solubility in water: 100%

Vapor pressure (mmHg @ 20 °C):

Appearance and odor: Redish liquid, ketone odor.

Melting point of range (°F): Unknown

Boiling point or range (°F): 210 (water)

Evaporation rate (butyl acetate=1): > 1

IV. FIRE AND EXPLOSION

Flash point (°F) (give method): 171 (TCC)

Auto ignition temperature (°F): Not tested

Flammable limits in air (volume %): lower (LEL): Unknown

upper (UEL): Unknown

Fire extinguishing materials:

 water spray carbon dioxide (CO₂) other (alcohol type) foam dry chemical

Special fire fighting procedures: CAUTION. COMBUSTIBLE. DO NOT enter confined space w/o full bunker gear (helmet w/face shield, bunker coat, gloves & rubber boots), including a positive pressure NIOSH approved self-contained breathing apparatus. Cool fire exposed containers with water.

Unusual fire and explosion hazards: Containers exposed to intense heat should be cooled with water to prevent vapor buildup which could result in a container rupture.

V. HEALTH HAZARD INFORMATION

SYMPTOMS OF OVEREXPOSURE (for each potential route of exposure).**Inhaled:** May cause labored breathing, dizziness, nausea.**Absorbed through skin:** Moderate irritant, possible burns.**Swallowed:** Nausea. Intestinal burns possible.

HEALTH EFFECTS OR RISKS FROM EXPOSURE: Explain in lay terms.
Acute: Product is a strong alkaline and will cause chemical burns upon direct contact with skin or eyes.**Cronic:** Liver and kidney damage reported in monkeys, rabbits and rats from overexposure to cyclohexanone.

FIRST AID EMERGENCY PROCEDURES:
Eye contact: Flush immediately with fresh water for at least 15 min.. Contact a physician if irritation persists.**Skin contact:** Remove contaminated clothing. Wash with soap and water. Seek medical attention if irritation persists.**Inhaled:** Remove victim to fresh air. Provide oxygen if breathing is difficult. Seek medical aid.**Swallowed:** DO NOT induce vomiting. Drink large quantities of water. Seek medical aid.

SUSPECTED CANCER AGENT?
 NO: This product's ingredients are not found on the list below.**YES:** **Federal OSHA** **NTP** **IARC****California employers using Cal/OSHA -- regulated carcinogen must register with Cal/OSHA. The Cal/OSHA and Federal OSHA lists are similar.**

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE: Severe irritant, particularly to pre-existing conditions.

VI. REACTIVITY DATA

Stability: **Stable** **Unstable****Conditions to avoid:** Do not store close to oxidizers.**Incompatibility (materials to avoid):** Avoid contact with strong acids, organic materials or reactive metals such as aluminum, magnesium, and copper.**Hazardous decomposition products (including combustion products):** CO, CO₂, and unidentified organic compounds.**Hazardous polymerization:** **May occur** **Will not occur****Conditions to avoid:** None known.

VII. SPILL, LEAK, AND DISPOSAL PROCEDURES

Spill response procedures (include employee protection measures): Absorb small spills onto suitable absorbent.

Disposal methods: May be supplied to biological treatment plant or incinerator.

NOTE: Dispose of all wastes in accordance with federal, state, and local regulations.

VIII. SPECIAL HANDLING INFORMATION

Ventilation and engineering controls: Local exhaust to maintain below PEL.

Respiratory protection (type): Non required under normal use conditions.

Eye protection (type): Safety glasses.

Gloves (specify material): Neoprene or chemical resistant gloves to prevent direct skin contact..

Other clothing and equipment: Rubber boots & gloves.

Work practices, hygiene practices: Wash hands with soap and water thoroughly after handling.

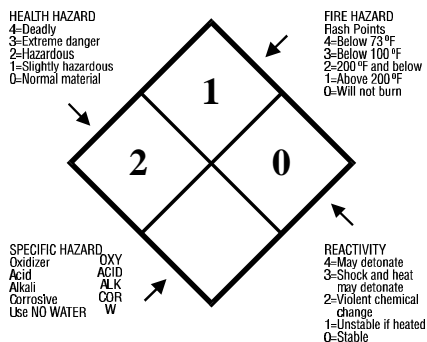
Other handling and storage requirements: Store away from ignition sources and in a cool, dry place

IX. REPORTING REQUIREMENTS & ADDITIONAL INFORMATION

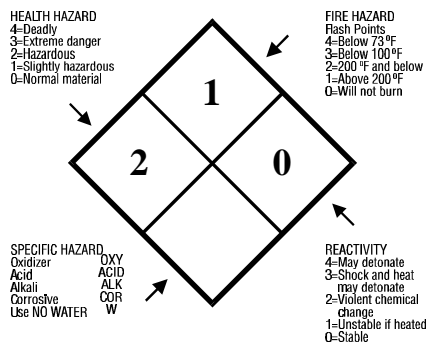
- Volatile Organic Compound (VOC) = 506 grams per liter
- This product contains no chemicals subject to the reporting requirements of SARA Title III, Section 313.
- This product contains no Proposition 65 designated chemicals.
- This product contains is in compliance with California SCAQMD Rule 1171 as a clean up material.
- Non-photochemically reactive.
- Biodegradable, considered drain safe into all sewer systems.
- Contains no chlorinated or petroleum hydrocarbons.

NFPA 704 Code System Rating = Health 2; Flammability 1; Reactivity 0.

HMS Code System Rating = Health 2; Flammability 1; Reactivity 0.



NFPA 704 Code System



HMIS Code System