



# Material Safety Data Sheet # 341

Hercules Chemical Company Inc.  
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| NFPA         | HMIS  | PPE    | Transport Symbol |              |   |            |   |  |  |
|--------------|---|--------|------------------|--------------|---|------------|---|--|--|
|              | <table border="1"> <tr> <td>HEALTH</td> <td>3</td> </tr> <tr> <td>FLAMMABILITY</td> <td>0</td> </tr> <tr> <td>REACTIVITY</td> <td>2</td> </tr> </table> | HEALTH | 3                | FLAMMABILITY | 0 | REACTIVITY | 2 |  |  |
| HEALTH       | 3   |        |                  |              |   |            |   |  |  |
| FLAMMABILITY | 0   |        |                  |              |   |            |   |  |  |
| REACTIVITY   | 2   |        |                  |              |   |            |   |  |  |

Preparation Date Oct 1, 2007

Revision Date

Revision Number 0

## 1. PRODUCT AND COMPANY IDENTIFICATION

**Product Identity:** Cloroben DE  
**Intended Use:** Delimiting solution

**Manufacturer:** Hercules Chemical Company, Inc.  
 111 South Street  
 Passaic, New Jersey 07055-7398

**Information Telephone:** (800) 221-9330

**Internet:** <http://www.herchem.com>

**Emergency Phone:** CHEMTREC: (800) 424-9300

**MSDS Date of Preparation:** 10/01/2007

## 2. HAZARDS IDENTIFICATION

### EMERGENCY OVERVIEW

Light yellow corrosive liquid. Ingestion causes severe burns to mouth, esophagus and stomach. If ingested, do not induce vomiting, call a doctor immediately. Vapors are extremely irritating. Corrosive to most metals with evolution of flammable hydrogen gas. Do not mix with strong alkalis such as sodium or potassium hydroxide.

Potential Health Effects.

**Inhalation:** Fumes from product will cause injury to respiratory tract. Severe exposure can cause lung damage.

**Ingestion:** Severe damage to internal organs (esophagus & pylorus) will occur if swallowed in large quantities. Call a doctor immediately.

**Eye:** Will cause severe eye burn.

**Skin:** Prolonged contact will cause skin burns.

## 3. COMPOSITION/INFORMATION ON INGREDIENTS

| Component         | CAS Number | Wt/Wt % | OSHA PEL | ACGIH TLV | Other Limits |
|-------------------|------------|---------|----------|-----------|--------------|
| Hydrogen Chloride | 7647-01-0  | 30-35   | 5 ppm    | 5 ppm     | 50 ppm IDLH  |
| Water             | 7732-18-5  | 65-70   | N/A      | N/A       |              |

HMIS Hazard Rating: 3 0 2 H

**4. EMERGENCY AND FIRST AID PROCEDURES.**

**Eye:** Immediately flush victim's eyes with large quantities of water, for 15 minutes, holding the eyelids apart. Get medical attention.

**Skin:** Wash affected area with soap and water. Remove contaminated clothing. If burn/rash appears, consult with a doctor.

**Ingestion:** DO NOT INDUCE VOMITING. If conscious, dilute by giving large quantities of water or milk. Get medical attention immediately.

**Inhalation:** Call a physician. Remove to fresh air. If not breathing, give artificial respiration. Give oxygen if the victim has difficult breathing.

**Note:** Never give anything by mouth to an unconscious person.

**5. FIRE FIGHTING MEASURES**

**Flashpoint:** Not flammable

**Flammable Limits:** N/A

**Autoignition Temperature:** N/A

**Extinguishing Media:** Water fog, Foam, Dry Chemical, Carbon Dioxide

**Unusual Fire or Explosion Hazards:** Contact with common metals may produce flammable and potentially explosive hydrogen gas.

**Special Fire-Fighting Instructions:** Firefighters and others, who might be exposed to products of combustion, should wear (NIOSH approved) positive pressure self-contained breathing apparatus and full protective clothing. Neutralize with soda ash or slaked lime

**Hazardous Combustion Products:** Hydrogen chloride gas and hydrogen.

**6. ACCIDENTAL RELEASE MEASURES**

**Spills/Leak Control:** Evacuate area; keep upwind until gas has dispersed. If necessary to enter the spill area, wear approved full face respirators with acid cartridges. Wear acid resistant clothing. For large spills, wear self contained breathing apparatus and full protective clothing including shoes. Build a dike around the spill. Neutralize with Lime or Soda Ash. Clean and dispose in accordance with federal, State and Local regulations.

**7. HANDLING AND STORAGE**

**Handling:** Keep containers tightly closed and away from heat. Protect containers from damage.

**Storage:** Store in original containers and away from heat. Keep containers closed when not in use.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

**OSHA PEL** 5 ppm Ceiling, **ACGIH TLV** 5 ppm Ceiling

**Respiratory Protection:** Full face respirator with HCL fumes cartridges for response to small spills. Self contained breathing apparatus.

**Engineering Controls:** Use with general or local exhaust ventilation.

**Skin Protection:** Wear Rubber or plastic gloves.

**Eye Protection:** Wear Chemical Safety goggles or Safety glasses and a face shield.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

|   |   |
|---|---|
| <b>Appearance And Odor:</b> Light Yellow liquid with a pungent acid odor. | <b>Boiling Point:</b> 181°F<br><b>Freezing Point:</b> -51°F |
| <b>Physical State:</b> liquid   | <b>Vapor Pressure:</b> 35                                   |
| <b>Vapor Density:</b> > 1.27  | <b>Evaporation Rate:</b> (Butyl Acetate=1) > 1.0            |
| <b>Solubility In Water:</b> Complete                                      | <b>Volatile Components:</b> 100%                            |
| <b>Specific Gravity:</b> 1.14 to 1.16                                     | <b>Viscosity:</b> N/A                                       |
| <b>Melting Point:</b> N/A   | <b>pH:</b> below 1.   |

## 10. STABILITY AND REACTIVITY

**Stability:** Stable.

**Conditions to avoid:** Open flames, sparks, and ignition sources.

**Incompatibility:** Strong oxidizers such as liquid chlorine, sodium or calcium hypochlorite, and pure oxygen.

**Hazardous Decomposition Products:** Carbon monoxide, oxides of sulfur and other decomposition products may form from incomplete combustion.

**Hazardous Polymerization:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

### HEALTH HAZARDS:

**Oral LD50**—900 mg/Kg rabbit

**LC50**—3124 ppm/lhr Rat

**Inhalation:** Corrosive and irritating to respiratory tract. Results in coughing, choking and inflammation of the respiratory tract.

**Eye:** Causes severe irritation and painful burns to the eyes and eye lids. Failure to irrigate the eyes immediately with copious amounts of water, could cause visual impairment and/or total loss of vision

**Skin:** Will cause severe burns unless washed off immediately. Repeated skin contact may lead to dermatitis.

**Ingestion: Corrosive to mouth and stomach.** Do not induce vomiting. Dilute with large amount of water.

**Sensitization:** None.

**Chronic:** Prolonged exposure to low level concentration of hydrochloric acid vapor may cause discoloration and erosion of teeth, bleeding of nose and gums, and ulcers of the nasal mucosa.

**Carcinogenicity:** Not a carcinogen

**Mutagenicity:** Not mutagenic.

**Medical Conditions Aggravated by Exposure:** It may also aggravate Asthma, bronchitis, emphysema, bronchial hyperactivity, skin allergies and eczema

**Reproductive Toxicity:** None

**Acute Toxicity Values:** Vapors can be fatal in enclosed areas without adequate ventilation.

## 12. ECOLOGICAL INFORMATION

**Environmental Toxicity:** This material is expected to be toxic to aquatic life.

**Environmental Transport:** Unknown.

**Environmental Degradation:** Not expected to biodegrade

**Soil Absorption/Mobility:** When released in the soil, it may leach into ground water.

## 13. DISPOSAL CONSIDERATIONS

Dispose of in accordance with Federal, State, and Local regulations.

**14. TRANSPORT INFORMATION**

DOT: Proper Shipping Name: Hydrochloric Acid, Solution  
Hazard Class: 8  
UN Number: 1789  
Packing Group: II  
RQ: 5000 lbs

**15. REGULATORY INFORMATION**

**EPA Regulation:**

**TITLE 311/312 Hazard Classification**

ACUTE: yes

CHRONIC: Yes

FIRE: No, REACTIVITY: No, PRESSURE: No

Extremely Hazardous substance. No

TSCA Inventory: All the components in this product are listed on the TSCA inventory.

**WHMIS.**

This MSDS has been prepared according to the hazard criteria of the controlled Products regulation (CPR). And the MSDS contains all of the information required by the CPR

**16. OTHER INFORMATION**

**DISCLAIMER:**

The information herein has been compiled from sources believed to be reliable, up-to-date, and is accurate to the best of our knowledge. However, Hercules cannot give any guarantees regarding information from other sources, and expressly does not make warranties, nor assumes any liability for its use.