

December 24, 2003

Roger E. Etherington  
Vulcan Chemicals  
P.O. Box 385015  
Birmingham, AL 35238-5015

Subject: Vulcan Chlorine  
EPA Registration No. 5382-38  
Application Date: September 26, 2003  
Receipt Date: October 6, 2003

Dear Mr. Etherington:

The labeling following amendment, submitted in connection with registration under the Federal Insecticide, Fungicide and Rodenticide Act, as amended, is acceptable with the conditions listed below.

- Revise the First Aid statement per PR Notice 2001-1

**Conditions**

1. The statement "FATAL IF INHALED. LIQUID CAUSES SEVERE BURNS" must be added under the signal word.
2. The Precautionary Statement should read:

**HAZARDS TO HUMAN AND DOMESTIC ANIMALS:**

**DANGER.** Fatal if inhaled or absorbed through the skin. Corrosive. Causes irreversible eye damage and skin burns. Do not breathe vapors or get in eyes, on skin or clothing. Wear goggles, protective clothing and rubber gloves as discussed below. Wash hands thoroughly with soap and water after handling and before eating drinking or using tobacco. Remove contaminated clothing and wash clothing before reuse. Prolonged frequently repeated skin contact may cause allergic reactions in some individuals.

**CONCURRENCES**

SYMBOL	7510C						
SURNAME	Mitchell						
DATE	12-24-03						

3. *Revise the Ingredient statement as follows:*

*Active Ingredient:*

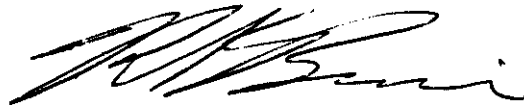
<i>Chlorine</i> .....	<i>99.5%</i>
<i>Other Ingredients</i> .....	<i>0.5%</i>
<i>Total</i> .....	<i>100.0%</i>

**General Comments**

*A stamped copy of the labeling accepted with conditions is enclosed. Submit a copy of your final printed labeling before distributing or selling the product bearing the revised labeling.*

*Should you have any questions or comments concerning this letter, please contact Wanda Mitchell at (703) 308-6345.*

*Sincerely,*



*Robert S. Brennis  
Product Manager - Team 32  
Regulatory Management Branch II  
Antimicrobials Division (7510C)*

# CHLORINE

## LIQUIFIED GAS UNDER PRESSURE

### NONFLAMMABLE

For use as a disinfectant and/or algicide by experienced personnel only, in municipal water supplies, sewage and waste management plants, and in commercial and industrial swimming pools; as a slimicide in water cooling systems and in paper mills; and in repackaging into portable cylinders. Repackagers must obtain their own registration with the Environmental Protection Agency.

with COMMENTS  
Label Dated:

ACTIVE INGREDIENT: Chlorine ..... 99.5%  
INERT INGREDIENTS..... 0.5%

DEC 24 2003

**KEEP OUT OF REACH OF CHILDREN**

**DANGER**



**POISON**

Under the Federal Insecticide, Fungicide and Rodenticide Act as amended for use as pesticide, registered under EPA Reg. No. 5382-38

<b>FIRST AID</b>	
<b>If inhaled:</b>	<ul style="list-style-type: none"> <li>Move person to fresh air.</li> <li>If person is not breathing, call 911 or an ambulance, then give artificial respiration.</li> </ul>
<b>If in eyes:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor for further treatment advice.</li> <li>Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> </ul>
<b>If on skin or clothing:</b>	<ul style="list-style-type: none"> <li>Call a poison control center or doctor immediately for treatment advice.</li> <li>Take off contaminated clothing.</li> <li>Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>Call a poison control center or doctor for treatment advice.</li> </ul>
<p><b>For emergency information call: 800-835-2030 (24 Hours)</b></p> <p>Have the product container or label with you when calling a poison control center or doctor or going for treatment.</p>	
<p><b>NOTE TO PHYSICIAN</b></p> <p>Development of pulmonary edema may be delayed 48-72 hours.</p>	

### PRECAUTIONARY STATEMENTS

#### HAZARDS TO HUMANS & DOMESTIC ANIMALS

**DANGER:** Hazardous liquid and gas under pressure. May be fatal if inhaled. Causes severe burns. Corrosive to eyes, skin and mucous membranes in presence of moisture. Harmful if absorbed through skin. Keep away from heat and open flame. Do not breathe gas. Use with adequate ventilation. Do not get in eyes or on skin or on clothing. Wash thoroughly after handling. Keep upwind of leak. Evacuate enclosed places until gas has dispersed. Make daily inspections for leaks. Stop leak at once since it will become worse with time.

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to the discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance contact your State Water Board or Regional Office of the EPA.

**CHEMICAL AND PHYSICAL HAZARDS:** Chlorine is a nonflammable gas. In the container it is a liquified gas under pressure. Do not drop container. Keep away from intense heat or open sunlight. Corrosive to most metals in the presence of moisture. Chlorine is an oxidizer and should not be stored near flammable materials.

**DIRECTIONS FOR USE  
GENERAL CLASSIFICATION**

4/5

It is a violation of federal law to use this product in a manner inconsistent with the labeling. Have available gas masks approved by the Mine Safety and Health Administration or the National Institute for Occupational Safety and Health. Handle and use only in accordance with practice recommended in the *Chlorine Manual* published by the Chlorine Institute Inc. Use only in well ventilated areas.

Only specifically designed dispensing equipment should be used in accordance with manufacturer's instructions and according to state regulatory agency recommendations for dosages or residual chlorine levels which should be maintained for each specific site of application.

*Continued on back*

**MANUFACTURED BY:**

Vulcan Chemicals, A Business Unit of Vulcan Materials Company  
P. O. Box 385015, Birmingham, AL 35238-5015

EPA Reg. No. 5382-38  
EPA Est. No. 5382-KS-1

Net Weight \_\_\_\_\_ Tons

9/03

VMC-3646

**ACCEPTED  
with COMMENTS  
EPA Letter Dated:**

**DEC 24 2003**

Under the Federal Insecticide,  
Fungicide and Rodenticide Act as  
amended for the purposes of  
registered under EPA Reg. No. **5382-38**

**STORAGE AND DISPOSAL**

Do not contaminate food or animal feed by storage or disposal.

Chlorine tankcars should be segregated from other compressed gases, hydrocarbons, turpentine, anhydrous ammonia or other flammable materials. All tankcars must have a weather resistant label attached near outlet valve and must not be accessible to general public. Empty tankcars should be returned immediately to the supplier. Tankcars must comply with DOT regulations, including closure of all angle valves with plugs installed, placarding, and shipping descriptions on bill of lading. Regulations prohibit shipment of chlorine tankcars which are leaking or have emergency leak containment devices installed.

**TANK CAR UNLOADING**

Chlorine tankcars should be spotted on level track, with wheels properly blocked and "Tank Car Connected" signs at each end of tankcar. Tankcar should be attended during all unloading operations.

Five valves are mounted on the manway cover inside the housing. The center valve is a safety relief valve; the other four valves are angle valves. The two angle valves inline with the length of the car discharge liquid chlorine. The two angle valves at right angles to the length of the car are connected to the vapor phase.

**CONNECTIONS:**

- (1) Be certain that the discharge valves are completely closed before removing valve outlet plugs. Make sure that both packing gland nuts at base of valve stem are tight. (Do not over-tighten).
- (2) Unloading should be done through a suitable flexible connection which will accommodate the rise of the car on its springs as it is unloaded.
- (3) Make certain all connections are tight, then open chlorine valve cautiously to test system for leaks.
- (4) Never use car angle valve to control chlorine flow. The valve must be completely open to allow excess flow valve to operate if unloading line is severed.

**DISCONNECTING:**

- (1) When car is empty, close angle valves completely. Allow discharge line to empty (de-pressure) before closing other valves in system.
- (2) Disconnect the unloading lines and immediately replace the valve outlet plug.

**EXCESS FLOW VALVES**

The internal dip legs below the liquid angle valves contain excess flow valves. They close if the rate of discharge becomes excessive and may close if angle valve is opened too rapidly. To release:

- (1) Close the car angle valve to equalize pressure.
- (2) If that fails, tap top of manway cover plate using steel rod and a WOODEN mallet while valve is closed. Never strike valve or valve stem.
- (3) When excess flow valve opens, a sharp click is usually heard.

In case of unloading problem contact:  
Vulcan Chemicals  
800-835-2030

In case of chlorine emergency contact:  
CHEMTREC  
800-424-9300

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EPA Letter Dated:

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DO NOT REMOVE THIS TAG