

3377-20 PM132

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US ENVIRONMENTAL PROTECTION AGENCY  
OFFICE OF PESTICIDES PROGRAMS  
REGISTRATION DIVISION ((S-767))  
WASHINGTON, DC 20460

EPA REGISTRATION NO.

DATE OF ISSUANCE

3377-20

10-6-87

TERM OF ISSUANCE

NOTICE OF PESTICIDE:  REGISTRATION  
 REREGISTRATION  
(Under the Federal Insecticide, Fungicide,  
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

Bromine Chloride Disinfectant

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

Ethyl Corporation  
451 Florida Street  
Baton Rouge, LA 70801

NOTE: Changes in labeling formula differing in substance from that accepted in connection with this registration must be submitted to and accepted by the Registration Division prior to use of the label in commerce. In any correspondence on this product always refer to the above U.S. EPA registration number.

On the basis of information furnished by the registrant, the above named pesticide is hereby Registered/Reregistered under the Federal Insecticide, Fungicide, and Rodenticide Act.

A copy of the labeling accepted in connection with this Registration/Reregistration is returned herewith.

Registration is in no way to be construed as an indorsement or approval of this product by this Agency. In order to protect health and the environment, the Administrator, on his motion, may at any time suspend or cancel the registration of a pesticide in accordance with the Act. The acceptance of any name in connection with the registration of a product under this Act is not to be construed as giving the registrant a right to exclusive use of the name or to its use if it has been covered by others.

This product is conditionally registered in accordance with FIFRA section 3(c)(7)(c), provided that you:

1. Submit the following studies by the dates shown. If they are not submitted on time, this Registration Notice will be cancelled unless a time extension is granted.

Guideline No.	Study	Test Substance	Deadline
72-1	96 hr. LC50 for rainbow trout or bluegill	Hypobromous acid	6/30/88
72-2	48 hr. LC50 for aquatic invertebrate	" "	6/30/88
72-3	96 hr. LC50 for sheepshead minnow and shrimp	" "	6/30/88
72-3	96 hr. embryo larvae or 48 hr shell deposition for American oyster	" "	6/30/88
72-7	Residue monitoring for freshwater and estuarine environments during once through cooling water use	" "	3/30/89
62-1	Preliminary analysis of ingredients (samples from five batches and spectral data which will confirm the presence of bromine species must be submitted)		6/30/88

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

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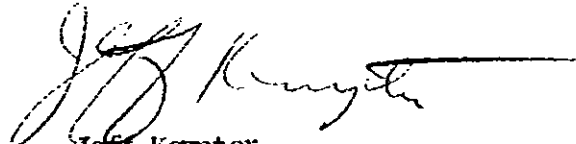
Guideline No.	Study	Test Substance	Deadline
63-17	30-day storage and stability	Technical	12/30/87
63-17	One year storage and stability	Technical	9/30/89

2. Add the phrase "EPA Registration No. 3377-20" to the label before you release the product for shipment.

3. Submit five (5) copies of your finished printed labeling before you release the product for shipment.

4. Submit and/or cite all data required for registration/reregistration of your product under FIFRA section 3(c)(5) when the Agency requires all registrants of similar data to submit such data.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA section 6(e). Your release for shipment of the product constitutes acceptance of these conditions. A stamped copy of the label is enclosed for your records.



Jeff Kemper  
 Product Manager 32  
 Disinfectants Branch  
 Registration Division

Inclosure

CONCURRENCES

SYMBOL	TS-767C	TS-767C	TS-767(C)				
SURNAME	Kemper	Campbell	Alman				
DATE	9/21/87	9-22-87	9/22/87				

BROMINE CHLORIDE  
DISINFECTANT

MANUFACTURING-USE PRODUCT FOR FORMULATION/REPACKAGING  
OR USE AS A DISINFECTANT, FUNGICIDE, ALGICIDE AND/OR  
SLIMIDICIDE IN WATER TREATMENT

ACTIVE INGREDIENT:

Bromine Chloride\*----- 99.1%

INERT INGREDIENTS----- 0.9%

\*Measured as active bromine 69.7% and chlorine 29.4%

KEEP OUT OF REACH OF CHILDREN

DANGER



POISON

ACCEPTED  
OCT 6 1987  
Under the Federal Insecticide,  
Fungicide, and Rodenticide Act,  
registered under the pesticide  
EPA Reg. No. 3377-20

STATEMENT OF PRACTICAL TREATMENT

IF INHALED - Remove person to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. Oxygen should be administered only by qualified personnel. Get medical attention.

IF ON SKIN - Wash skin immediately with plenty of soap and water while removing contaminated clothing and shoes. Wash clothing before reuse and destroy contaminated shoes. Get medical attention.

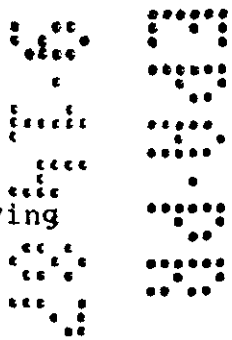
IF IN EYES - Hold eyelids open and flush with a steady, gentle stream of water for 15 minutes. Get medical attention.

ETHYL CORPORATION  
451 Florida Street  
Baton Rouge, LA 70801

In case of an emergency endangering life or property involving this product, call collect (504) 344-7147.

EPA Reg. No. 3377 -  
EPA Est. No. 3377-AR-1

Net Contents -----lbs.



PRECAUTIONARY STATEMENTS  
HAZARDS TO HUMAN AND DOMESTIC ANIMALS

DANGER

HAZARDOUS LIQUID AND VAPOR UNDER PRESSURE. INHALATION MAY BE FATAL. DO NOT BREATHE VAPOR. Liquid and vapor cause burns. Do not get in eyes, on skin or on clothing. Wear chemical goggles and face shield and chemically resistant gloves when handling. If skin contact or contamination is likely wear protective clothing.

This disinfectant is a highly hazardous material and must be handled with care only by those individuals trained in its proper use. Consult your dealer representative or Ethyl Corporation for correct procedure.

RESPIRATORY PROTECTION

If exposures are anticipated, use full-facepiece chemical cartridge or canister respirator with NIOSH approval for chlorine/acid gas up to 5 ppm chlorine. Above 5 ppm chlorine or in unknown concentrations and emergencies, use NIOSH/MSHA approved self contained breathing apparatus.

ENVIRONMENTAL HAZARDS

This pesticide is toxic to fish. Do not discharge effluent containing this product directly into lakes, streams, ponds, estuaries, oceans or public waters unless in accordance with a NPDES permit. For guidance, contact your Regional Office of EPA. Apply this pesticide only as specified on this label.

PHYSICAL AND CHEMICAL HAZARDS

CHEMICAL HAZARD: HIGHLY REACTIVE. STRONG OXIDIZER. CORROSIVE. Bromine chloride is practically nonflammable, but may ignite combustibles on contact. Do not add this product to any equipment containing organics or moisture. Contamination with moisture, organic matter or other chemical may start a chemical reaction with generation of heat, liberation of hazardous gases and possible generation of fire and explosion. Do not use dispensing devices or equipment made of aluminum, magnesium and titanium or their alloy. Contain any spills with dikes or absorbents to prevent migration into sewers or streams. Do not spray water on spill. Clean up spills with neutralization agent such as lime, caustic, soda ash or sodium thiosulfate solution. Evacuate unnecessary personnel.

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#### STORAGE AND DISPOSAL

**STORAGE:** Store in well ventilated, dry area away from occupied structures. Store away from heat, open flames and other chemicals. All storage containers must have a weather resistant label attached near the outlet valve and must not be accessible to the general public.

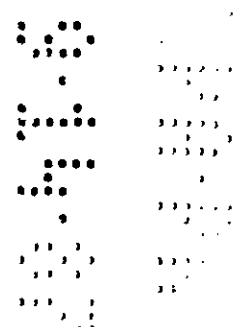
**DISPOSAL:** Do not contaminate water, food or feed by storage or disposal. Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes can not be disposed of by use in accordance to label instructions, contact your Regional Office of EPA for guidance.

Return empty cylinder for reuse. Close valves tightly and replace safety cap or bonnet. Return partially filled cylinders only after consulting with Ethyl Corporation for proper shipping instructions.

#### WARRANTY

Seller makes no warranty expressed or implied concerning the use of this product other than indicated on the label. Buyer assumes all risk of use and/or handling of this material when such use and/or handling is contrary to label instructions.

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DIRECTIONS FOR USE. It is a violation of Federal Law to use this product in a manner inconsistent with its labeling.

For use as a disinfectant, algicide, fungicide, bactericide and/or simicide for wastewater, commercial and industrial recirculating cooling water systems and industrial once-through cooling water systems.

Bromine Chloride may be added at system inlet water or other locations in the system using a liquified gas feeder. Consult your feeder manufacturer for correct procedure and proper use of the feeder equipment.

WASTEWATER. When used as directed, BROMINE CHLORIDE effectively disinfects wastewater effluent. The quantity of BROMINE CHLORIDE required varies with the degree of fouling. Add sufficient BROMINE CHLORIDE to achieve residual bromine levels of 0.3 ppm to 1 ppm when measured approximately 5 minutes after treatment.

Depending on the construction of the wastewater system, BROMINE CHLORIDE may be effectively added to one or more different locations in the system. Frequently the compound is added to wastewater receiving secondary treatment at a contact tank preceding the effluent discharge or at the influent of the final clarifier.

The disinfection of sewage effluent must be evaluated by determining that the total number of coliform bacteria and/or fecal coliform bacteria, as determined by the MPN Procedure, of the disinfected effluent has been reduced to or below the maximum permitted by the controlling regulatory jurisdiction.

RECIRCULATING COOLING WATER SYSTEMS. When used as directed, BROMINE CHLORIDE effectively controls bacteria, fungi, algae and slimes in commercial and industrial cooling towers; heat exchange water towers, industrial water scrubbing systems, and influent systems such as flow through filters, lagoons, etc.

INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS. When used as directed, BROMINE CHLORIDE effectively controls bacteria, fungi, algae and slimes in once-through and closed-cycle fresh and sea water cooling systems. Apply BROMINE CHLORIDE to the system inlet water or before any other contaminated area in the system.

DOSAGE RATES:

Initial Doses: When the system is noticeably fouled, apply sufficient BROMINE CHLORIDE to achieve a residual bromine level of 0.5-1 ppm or as needed to maintain control.

Subsequent Dose: When microbial control is evident, apply sufficient BROMINE CHLORIDE to achieve a residual bromine level of 0.5-1 ppm or as needed to maintain control. Total residual oxidants measured at the effluent discharge point should be in accordance to the NPDES permit.

The product may be added to the system either continuously or intermittently or as needed. The frequency of feeding and duration of the treatment will depend upon the severity of the problem.

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BROMINE CHLORIDE  
LIQUID  
UN 1760

