

The PRODUCT is recommended to control the growth of green algae (Chlorella, Scenedesmus), blue-green algae (Phormidium, Anabaena), anaerobic sulfate-reducing bacteria (Desulfovibrio) and aerobic heterotrophic bacteria (Bacillus sp., Pseudomonas sp.) in recirculating water cooling systems, evaporative condensers and in subsurface injection systems, such as secondary and tertiary oil recovery systems.

**PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND
DOMESTIC ANIMALS**

DANGER

Highly corrosive. Causes skin and eye damage. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or face shield and rubber gloves when handling. Remove and wash contaminated clothing before reuse.

ENVIRONMENTAL HAZARDS: This product is toxic to fish. Do not discharge into lakes, streams, ponds, or public waters unless in accordance with an NPDES Permit. For guidance contact the regional office of EPA.

**DIRECTIONS FOR USE
GENERAL CLASSIFICATION**

It is a violation of Federal law to use THIS PRODUCT in a manner inconsistent with its labeling.

THIS PRODUCT may be metered, pumped, gravity fed or poured from a suitable container into the treatment system. Centrifugal injection, piston or diaphragm pumps are satisfactory. Algaecide feed pumps, meters and feed lines may be stainless steel, neoprene, glass, plastic or unpigmented fiberglass.

RECIRCULATING WATER COOLING TOWERS:
INITIAL TREATMENTS: To a visually clean system or when algae or slime first visible, to pump water near pump suction, add 50 to 100 ounces of THIS PRODUCT for each 1,000 gallons of water (390 to 780 ppm) in the system. Repeat initial dose at day intervals until algae and slime control is evident. Badly fouled systems should be cleaned before initiating treatment.

MAINTENANCE TREATMENTS: The frequency at which additional dosages, must be added to control slime and algal growth can only be determined by experience, since each system will vary in water composition and in amount and type of microorganisms present.

A treatment of this algaecide once or twice a month or when algae or slime first appears is usually sufficient to control growth of green algae in cooling towers. To control slime bacteria, a dose may be necessary once a week or once every two weeks. Use 38 to 77 oz. per 1,000 gallons of water (300 to 600 ppm) for subsequent dosages.

FEEDING: THIS PRODUCT may be fed directly from the drum or diluted with water and fed by any suitable feed system. Dose directly into the pump

HVC MICROBIOCID 1

Controls algae slime growth on recirculating water cooling towers and evaporative condensers.

Controls anaerobic sulfate-reducers and aerobic heterotrophic bacteria in oil field and petro-chemical water injection systems.

ACTIVE INGREDIENTS:
Alkyl (C14, 58%; C16, 28%; C12, 14%)
dimethyl benzyl ammonium chloride 10%
INERT INGREDIENTS: 90%
TOTAL INGREDIENTS: 100%

**KEEP OUT OF REACH OF CHILDREN
DANGER**

PRACTICAL TREATMENT (FIRST AID): In case of contact, immediately flush eyes or skin with plenty of water for at least 15 minutes. For eyes, call a physician. Remove and wash contaminated clothing before reuse.

If swallowed, drink promptly a large quantity of milk, egg whites, gelatin solution or if these are not available, drink large quantities of water. Avoid alcohol. Call physician immediately.

NOTE TO PHYSICIAN: Probable mucosal damage may contraindicate the use of gastric lavage. Measures against circulatory shock as well as oxygen and measures to support breathing manually or mechanically may be needed. If persistent, convulsions may be controlled by cautious intravenous injection of a short-acting barbiturate drug.

SEE ADDITIONAL PRECAUTIONS ON SIDE PANEL

NOT FOR USE OR STORAGE AROUND THE HOME ENVIRONMENT FOR COMMERCIAL AND INDUSTRIAL USE ONLY

EPA Reg. No. _____ EPA Est. No. _____

Manufactured by

Hi-Valley Chemical Company, Inc.
1261 South Redwood Road - Suite G
Salt Lake City, Utah 84104

Net Contents

5 U.S. Gallons

OIL FIELD AND PETROCHEMICAL SUBSURFACE INJECTION SYSTEMS: Biological requirements vary from site to site. Areas frequently requiring control are raw water sources, mixing tanks, screens, and the formation itself. The primary treatment location will vary from site to site depending on the site conditions, water flood treatment methods and equipment. The microbicide should be applied where it will disperse most rapidly and uniformly to the desired area of treatment. This may be at screens, filters, pumps, mixing tanks, storage tanks, or pre-filter water, to the water as it is pumped to the formation or it may be pumped directly to the formation.

SLUG DOSES: An effective treatment for aerobic heterotrophic bacteria is 200-800 ppm THIS PRODUCT (26 to 103 ounces per 1,000 gallons). A slug dose for anaerobic sulfate-reducers is 60-230 ppm of this Algaecide (8 to 30 ounces per 1,000 gallons). The appropriate slug dose should be applied for three to eight hours daily until the desired level of control is achieved. To maintain the system in an acceptable manner, utilize a continuous treatment with the algaecide or apply intermittent doses.

INTERMITTENT DOSES: To prevent a clean system from fouling, slug doses may be applied intermittently. The frequency of intermittent doses will vary with individual systems and can be established only through experience. Intermittent doses may be required 2 to 3 times a week in some systems. Other systems may require dosing once a week or once every two weeks. For heterotrophic bacteria, use 200-800 ppm THIS PRODUCT (26 to 103 ounces per 1,000 gallons). For anaerobic sulfate-reducers, use 60-230 ppm THIS PRODUCT (8 to 30 ounces per 1,000 gallons). Maintain these doses for five to eight hours, depending upon the requirements of your system.

CONTINUOUS TREATMENT: Fouled systems should be slug treated to get initial control, followed by continuous treatment to maintain control. Use 60 to 200 ppm THIS PRODUCT (8 to 26 ounces per 1,000 gallons). The lower dose concentration is usually satisfactory for Desulfovibrio. Higher doses may be needed for the aerobic heterotrophic bacteria.

STORAGE AND DISPOSAL

1. **PROHIBITIONS:** Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited.

2. **PESTICIDE DISPOSAL:** Pesticide or waste that cannot be used or chemically processed should be disposed of in a landfill approved for pesticides or buried in a safe place away from water supplies.

3. **CONTAINER DISPOSAL:** (A) Recycle container and offer for reconditioning, or (B) triple rinse (or equivalent) and offer for recycling, reconditioning or disposal in approved landfill, or bury in a safe place.

ACCEPTED
with COMMENTS
EPA Lower Div.
AUG 17 1984
52262-1

U.S. ENVIRONMENTAL PROTECTION AGENCY
OFFICE OF PESTICIDES PROGRAMS
REGISTRATION DIVISION (877-367)
WASHINGTON, D.C. 20460

EPA REGISTRATION NO.

DATE OF ISSUANCE

TERM OF ISSUANCE

17 AUG 1984

NOTICE OF PESTICIDE: REGISTRATION
 REREGISTRATION

(Under the Federal Insecticide, Fungicide,
and Rodenticide Act, as amended)

NAME OF PESTICIDE PRODUCT

NAME AND ADDRESS OF REGISTRANT (Include ZIP code)

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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.

BEST DOCUMENT AVAILABLE

ATTACHMENT IS APPLICABLE

SIGNATURE OF APPROVING OFFICIAL

DATE

according to label instructions, contact your State Pesticide or Environmental Control Agency, or the hazardous waste representative at the nearest EPA Regional Office for guidance.

Do not reuse empty container.
Triple rinse empty container with water. Return metal drums to reconditioner or puncture and dispose of in a sanitary landfill or by other procedures approved by state and local authorities. Plastic containers may be disposed of in a sanitary landfill, incinerated or, if allowed by local authorities, by burning. If burned, stay out of smoke.

The heading "Storage and Disposal" must be of the same type size as the child hazard warning statement.

3. Submit five (5) copies of your final printed labeling before you release the product for shipment. Refer to the A-79 Enclosure for a further description of final printed labeling.

If these conditions are not complied with, the registration will be subject to cancellation in accordance with FIFRA sec. 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.

John H. Lee
Product Manager (31)
Disinfectants Branch
Registration Division (TS-767C)

RD/DIS:J.Lee:DCR-44720:WANG:0098N:eg:Raven:479-2013:8/17/84:Del.8/31/84

BEST DOCUMENT AVAILABLE