# BIO-GUARD WTB-10

## MICROBIOCIDE — ALGICIDE

***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 ($C_{14}$, 58%; $C_{16}$, 28%; $C_{12}$, 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. If 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. Measure 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 short-acting barbituate drug.

SEE ADDITIONAL PRECAUTIONS ON SIDE PANEL

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

**A PRODUCT OF**
**BIO-LA, INC.**
**Decatur, Georgia 30031**

EPA Reg. No. 5185-327
EPA Est. No. 5185-GA-1

**Net Contents: 55 U.S. Gallons**

Bio-Guard WTB-10 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.

Bio-Guard WTB-10 may be metered, pumped, gravity fed or poured from a suitable container into the treatment system. *Centrifugal, injection, piston* or diaphragm pumps are satisfactory. Algicide 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* is first visible, to sump water near pump suction, add 50 to 100 ounces of Bio-Guard WTB-10 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 amounts and types of microorganisms present.

A treatment of this algicide 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:** Bio-Guard WTB-10 may be fed directly from the drum or diluted with water and fed by any suitable feed system. Dose directly into the sump or any other convenient location providing good distribution of treatment.

### 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 problems, water flood treatment methods and equipment. The microbiocide 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,* to 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 heterotropic bacteria* is 200-800 ppm Bio-Guard WTB-10 (26 to 103 ounces per 1,000 gallons). A slug dose for anaerobic sulfate-reducers is 60-230 ppm of this Algicide (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 algicide 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 *Bio-Guard WTB-10* (26 to 103 *ounces per 1,000 gallons*). For anaerobic sulfate reducers, use 60-230 ppm Bio-Guard WTB-10 (8 to 30 ounces per 1,000 gallons). Maintain these doses for two to eight hours, depending upon the requirements of your system.

**CONTINUOUS TREATMENT:** Fouled systems should be slug treated to get inital control, followed by *continuous treatment* to *maintain* control. Use 60 to 200 ppm Bio-Guard WTB-10 (8 to 26 ounces per 1,000 gallons). The lower dose concentration is usually satisfactory for Desulfovibrio. Higher doses may be required 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 RINSATE 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) RESEAL 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.

4. **GENERAL:** CONSULT FEDERAL, STATE OR LOCAL DISPOSAL AUTHORITIES FOR APPROVED ALTERNATE METHOD.

ACCEPTED
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Under the Federal Insecticide, Fungicide, and Rodenticide Act, as amended, for the pesticide registered under EPA Reg. No. 5185-327

5185-327

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