BIO-TROL 20
INDUSTRIAL ANTIMICROBIAL

ACTIVE INGREDIENT:
Tetrazakis(hydroxymethyl)phosphonium sulfonate ........................................ 20%
OTHER INGREDIENTS: .................................................................................. 80%
TOTAL: ........................................................................................................ 100%

EPA Reg. No. 4564-18-43553 EPA Est. 43553-WA-1

KEEP OUT OF REACH OF CHILDREN
DANGER

FIRST AID

If in eyes:
• Hold eye open and rinse slowly and gently with water for 15-20 minutes.
• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.
• Call a poison control center or doctor for treatment advice.

If swallowed:
• Call a poison control center or doctor immediately for treatment advice.
• Have a person sip a glass of water if able to swallow.
• Do not induce vomiting unless told to do so by a poison control center or doctor.
• Do not give anything by mouth to an unconscious person.

If inhaled:
• Move person to fresh air.
• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably
  mouth-to-mouth, if possible.
• Call a poison control center for further treatment advice.

If on skin or clothing:
• Take off contaminated clothing.
• Rinse skin immediately with plenty of water for 15-20 minutes.
• Call a poison control center or doctor for treatment advice.

Have the product container or label with you when calling a poison control center or doctor, or going
for treatment.

Note to physician: Probable mucosal damage may contraindicate the use of gastric lavage.

See Side Panels for Additional Precautionary Statements
In case of emergency, call CHEMTREC at 1-800-424-9300

CH₂O, Inc.

8820 OLD HWY. 99 SE / OLYMPIA, WA 98501 / 360-943-6063
Active ingredient produced in United Kingdom and/or China

PRECAUTIONARY STATEMENTS
HAZARD TO HUMANS AND DOMESTIC ANIMALS
DANGER: Corrosive. Causes eye damage and skin irritation. Do not get in eyes, on
skin or on clothing. Wear long-sleeved shirt and pants or coveralls, goggles or face
shield and chemical-resistant gloves when handling. Prolonged or frequent skin
contact may cause allergic reactions in some individuals. Harmful if inhaled. Avoid
breathing vapor. May be fatal if swallowed. Wash thoroughly with soap and water and
before eating, drinking, chewing gum or using tobacco. Remove contaminated
clothing and wash before reuse.

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 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.

DIRECTIONS FOR USE
It is a violation of Federal Law to use this product in a manner inconsistent with its
labeling.
Note: For cooling water systems of equal to or greater than 4000 gallons, do not apply
by open pouring of liquid to cooling water systems; a metering pump delivery system is
required for this use and application method.

INDUSTRIAL AND/OR COMMERCIAL RECIRCULATING COOLING WATER SYSTEMS
(for control of bacteria, fungi and algae)
Initial Slug Dose: Add 350-1312.5 ppm of BIO-TROL 20 (70-262.5 ppm THPS) based
on total water volume. Repeat until control is obtained. Thereafter, add either
Intermittently 131.25-525 ppm of BIO-TROL 20 (26-105 ppm THPS) or Continuously
70-245 ppm of BIO-TROL 20 (14-49 ppm THPS) per day.
Dirty systems must be cleaned prior to treatment.

HEAT TRANSFER SYSTEMS (Evaporative Condensers, Dairy Sweetwater Systems,
Hydrostatic Sterilizers and Retorts, Brewery and Other Pasteurizers, and Warmers)
Add BIO-TROL 20 at the same application rates, and in the same manner as described
above. It should be added to the system at a point of uniform mixing such as a basin
area, sump area, or other reservoir or collecting area from which the treated water will
be circulated uniformly throughout the system.

SERVICE WATER AND AUXILIARY SYSTEMS
BIO-TROL 20 should be added to service water and auxiliary systems at the same
application rates, and in the same manner as described above. It should be added
to the system at a point of uniform mixing such as a basin area, sump area, or other
reservoir or collecting area from which the treated water will be circulated uniformly
throughout the system.
AIR WASHER SYSTEMS [Not for use in California]
For control of bacteria and fungi. This product may be used only in air washer systems which have mist eliminating components. Pre-clean the system with detergent and allow air washer to run with fan on for two hours. Flush and check nozzles, manually cleaning as necessary. Add 131.25-350 ppm of BIO-TROL 20 (25-70 ppm THPS) at a point where uniform mixing and even distribution will occur. Repeat as needed to maintain control.

INDUSTRIAL FRESH WATER SYSTEMS [Not for Use in New York State and California]
Do not use in freshwater used in the manufacture of paper and paperboard products that may contact food. BIO-TROL 20 is effective in controlling algae in holding ponds and in controlling bacteria and fungi in holding and processing tanks of industrial fresh water systems supplying water to pulp and paper mills, textile mills, and other manufacturing plants. In pulp and paper mills, treatment of the fresh water with BIO-TROL 20 can make an important contribution to slime control. The use of BIO-TROL 20 as described will reduce the development of slime in fresh water pipes and other equipment, and on the pulp and paper mill machine parts contacted by fresh water.
For the control of algae in industrial fresh water systems, BIO-TROL 20 should be added to provide a concentration of 5-50 ppm of product (1-10 ppm of THPS). Treatment should be based on the amount of water entering a pond or reservoir or leaving the pond or reservoir and entering the immediate processing operations. While treatment can be made continuously, regular slug-dosing treatment will provide adequate control.

INDUSTRIAL WASTEWATER SYSTEMS (Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks) [Not for Use in New York State and California]
BIO-TROL 20 should be added to a wastewater system or sludge at a convenient point of uniform mixing such as digester. Add 1250-6250 ppm of BIO-TROL 20 (250-1250 ppm THPS) per 1,000 gallons of wastewater or sludge.

MACROFouLING CONTROL [Not for Use in New York State and California]
BIO-TROL 20 should be added continuously to maintain a level of 20 ppm active ingredient (THPS) in the system for a period of at least 96 hours.
Initial Dose: When macrofouling is present in the system, apply 100 ppm of BIO-TROL 20 (20 ppm THPS) based on total water volume. Continue to add BIO-TROL 20 as needed to maintain the 20 ppm active ingredient (THPS) level for a period of at least 96 hours.

SOLUTIONS / EMULSIONS
Not for use in manufacture of paper and paperboard products and adhesives that may come in contact with food. For the preservation of solutions, emulsions, adhesives and other aqueous liquid products, the addition of 0.0875% to 0.875% of BIO-TROL 20 (0.0175-0.175% THPS) is effective. Add at a point in the processing system where there will be sufficient time and agitation for good mixing and dispersion. The exact amount of BIO-TROL 20 to be added for the preservation of given formulations will depend on the components as well as local storage time and requirements.

STORAGE AND DISPOSAL
Do not contaminate water, food or feed by storage or disposal.

STORAGE: Store this product in a cool, dry area away from direct sunlight and heat to avoid deterioration. In case of a spill, flood the area with large quantities of water.

PESTICIDE DISPOSAL: Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture, or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use 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.

CONTAINER HANDLING AND DISPOSAL: Nonrefillable container. Do not reuse or refill this container. Offer for recycling or reconditioning if appropriate. Triple rinse or pressure rinse container (or equivalent) promptly after emptying.

Containers, 5 gallons or less:
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank and drain for 10 seconds after the flow begins to drip. Fill the container 1/4 full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or a mix tank and store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

Containers, greater than 5 gallons:
Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container 1/4 full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Turn the container over onto its other end and tip it back and forth several times. Empty the rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times. Pressure rinse as follows: Empty the remaining contents into application equipment or a mix tank and continue to drain for 10 seconds after the flow begins to drip. Hold container upside down over application equipment or mix tank or collect rinsate for later use or disposal. Insert pressure rinsing nozzle in the side of the container, and rinse at about 40 PSI for at least 30 seconds. Drain for 10 seconds after the flow begins to drip.

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

NET CONTENTS: As Marked on Container