CHEMTREAT CL-2212
COMMERCIAL MICROBICIDE

A microbicide for controlling slime-forming and sulfate-reducing bacteria, fungi, yeast and algae. For use in sugar beet mills and associated process water systems; paper mills and associated process water systems; pigments and filler slurries for food and non-food contact paper and paperboard; non-food contact water based coatings for paper and paperboard; air washers and industrial scrubbing systems; recirculating cooling and process water systems; reverse osmosis membranes; heat transfer systems; service water and auxiliary systems; industrial wastewater systems including wastewater sludge and holding tanks; water-based conveyer lubricants; aqueous metalworking fluids; oil field applications and processing water systems, worker, fractionation and packer fluids; gas production, transmission and storage; and preservation of food contact adhesives and mineral slurries used in paper making and preservation of concentrates.

ACTIVE INGREDIENT:
Glutaraldehyde........................................50.0%

INERT INGREDIENTS......................50.0%
TOTAL........................................100.0%

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 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.

IF SWALLOWED
-Call a poison control center or doctor immediately for treatment advice.
-Have person sip a glass of water if able to swallow.
-Do not induce vomiting unless told to do so by the 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 by mouth-to-mouth, if possible.
-Call a poison control center or doctor for further treatment advice.

ROT LINE NUMBER

Have the product container or label with you when calling a poison control center or doctor, or going for treatment. You may also contact 1-800-424-9300 for emergency medical treatment information.

NOTE TO PHYSICIAN: Probable mucous damage may contribute to the use of gastric lavage.

PRECAUTI0NARY STATEMENTS
HAZARDS TO HUMANS & DOMESTIC ANIMALS
Corrosive. Causes irreversible eye damage. Causes skin burns. Harmful if inhaled or absorbed through the skin. May be fatal if swallowed. Do not get in eyes, on skin or on clothing. Avoid breathing vapors and mists. Not to be used as an aerosol. Do not swallow. Prolonged or frequently repeated skin contact may cause allergic skin reactions in certain individuals. May cause asthmatic signs and symptoms in some hyper-reactive individuals. Wear eye goggles, rubber gloves and protective clothing when handling this product. Wash thoroughly with soap and water after handling and before eating, drinking and using tobacco. Remove contaminated clothing and wash before reuse.

EPA REG. NO. 153000-28
EPA. EST. NO. 15300-VY-1 15300-TX-1
15300-1A-1 39959-CA-1

NET CONTENTS: (9.40 lbs/gallon)
Manufactured for:
ChemTreat, Inc.
10040 Lickinghlole Road
Ashland, Virginia 23005
(804) 935-2000

ENVIRONMENTAL HAZARDS

This pesticide 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 sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA. Do not contaminate water when disposing of equipment washwaters.

Instructions in Case of Spills or Leaks:
Wear goggles, rubber gloves, and protective clothing. Absorb spills and leaks with inert material such as sand, clay or vermiculite. Shovel into a sealable container and dispose of in an authorized EPA disposal facility.

In Case of Fire:
Use water, carbon dioxide, dry chemical (e.g. Sodium bicarbonate) extinguishing media. Fire fighters should be equipped with self-contained breathing apparatus and turnout gear.

In case of Chemical Emergency:
Call CHEMTREX day or night for assistance and information covering spilled material, fire, exposure and other chemical accidents. 800-424-9300.

STORAGE & DISPOSAL

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

PESTICIDE STORAGE
ChemTreat CL-2212 solutions are corrosive to many commonly used materials of construction such as steel, galvanized iron, aluminum, tin and zinc. These solutions can be stored and handled in baled phenolic lined steel, stainless steel or reinforced epoxy equipment. This product freezes at approximately -20°C (-4°F). Therefore, unless the storage tank is inside or underground, heating and insulation may be required. If heating is needed, exposure to high temperatures should be avoided. For short storage (1 month) temperatures up to 100°F can be tolerated; however, the preferred maximum storage temperature is approximately 80°F. Keep away from fire and open flames. A stainless steel centrifugal pump is suggested for transfer purposes.

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 CHEMTREX facility for guidance.

CONTAINER DISPOSAL
Non-refillable container – Do not reuse or refill this container. Triple rinse container promptly after emptying. 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. Then offer for recycling if available or puncture and dispose of in a sanitary landfill, or by other procedures approved by state and local authorities.

GENERAL

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

GENERAL USE DIRECTIONS
Add ChemTreat CL-2212 at a point of uniform mixing where the treated water will be circulated or mixed throughout the system. Badly fouled systems should be cleaned before treatment begins. ChemTreat CL-2212 can be applied either continuously (slug dose) or by continuous feed when stated. When appropriate, feed points should be below the water line to minimize vapor.

AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS, RECIRCULATING COOLING AND PROCESS WATER SYSTEMS
Use only in industrial air washer systems, which have mass-eliminating components. Badly fouled systems can be shock treated by using the highest recommended rate of ChemTreat CL-2212. Under these conditions, blowdown should be discontinued for up to 24 hours. Apply by intermittent or continuous feed methods.
Initial Dose: When the system is noticeably fouled, add 11.5 - 23.0 fl. oz. (100-200 ppm) of ChemTreat CL-2212 per 1,000 gal. of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 4.5 - 11.5 fl. oz. (40-100 ppm) of ChemTreat CL-2212 per 1,000 gallon of water in the system per day, or as needed to maintain control.
REVERSE OSMOSIS MEMBRANES
Use only water approved for compatibility by the membrane manufacturer. Insert membrane in a tank containing 2,000 to 20,000 ppm ChemTreat CT-2212 for 6 to 24 hours. ChemTreat CT-2212 can also be added in-line recirculating systems of installed out of service osmosis equipment. Add 200-2000 ppm ChemTreat CT-2212 to the tank on the circulating system and maintain this concentration by periodic addition to counteract any system leakage. Flush the system through with clean water before returning to service.

HEAT TRANSFER SYSTEMS
For use in Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts, Pasteurizers and Warmers, and Once-Through Cooling Water Systems. Initial Dose: When the system is noticeably fouled, add 11.5-23.0 fl. oz. (100-300 ppm) of ChemTreat CT-2212 per 1,000 gal. of water in the system. Subsequent Dose: For maintenance, use a consistent feed of 4.6-11.5 fl. oz. (40-100 ppm) of ChemTreat CT-2212 per 1,000 gal. of water in the system per day.

SERVICE WATER AND AUXILIARY SYSTEMS
Use in systems such as fire water reservoirs, auxiliary boiler, and emergency cooling water systems. Dose initially at 11.5-23.0 fl. oz. (100-200 ppm) of ChemTreat CT-2212 per 1,000 gal. of water in the system. Reapply as necessary to maintain this concentration.

INDUSTRIAL WASTEWATER SYSTEMS
For use in aerobic and anaerobic systems, septic tank, and holding tanks. Add 0.5-2.3 gal. (450-2,250 ppm) of ChemTreat CT-2212 per 1,000 gal. of wastewater or sludge.

SUGAR BEET MILLS AND PROCESS WATER SYSTEMS
Apply by intermittent or continuous feed methods. Repeat intermittent dose until control is achieved. The total should not exceed 150 gal. per 1000 lbs of beets sliced per day. Initial Dose: When the system is noticeably contaminated, add 5.5-13.6 fl. oz. (200-500 ppm) of ChemTreat CT-2212 per ton of sliced beets. Subsequent Dose: When microbial control is evident, add 0.8-4.2 fl. oz. (30-300 ppm) of ChemTreat CT-2212 per ton of sliced beets to the system to allow for maintenance control. Not for use in sugar beet mills and process water systems in the State of California.

PAPER MILLS AND ASSOCIATED PROCESS WATER SYSTEMS
Apply by intermittent or continuous feed methods. Initial Dose: When the water is noticeably contaminated, add 0.5-3.0 lbs per ton of pulp or paper (dry basis). Repeat until control is achieved. Subsequent Dose: When microbial control is evident, add 0.5-2.0 lbs per ton of pulp or paper (dry basis) as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR FOOD AND NON-FOOD CONTACT PAPER AND PAPERBOARD
To inhibit the growth of spoilage microorganisms during manufacture, storage and distribution of pigments and filler slurries such as kaolin, calcium carbonate and titanium dioxide. Add ChemTreat CT-2212 to produce a concentration of 100-600 ppm by weight of the formulation slurry (1.6-6 lbs of product per 10,000 lbs of slurry). Apply once during manufacture.

WATER-BASED COATINGS FOR NON-FOOD CONTACT PAPER AND PAPERBOARD
To inhibit the growth of spoilage microorganisms during manufacture, storage and distribution of water-based coatings for use on non-food-contact paper and paperboard. Add ChemTreat CT-2212 at 100-600 ppm by weight of the formulation slurry (1.6-6 lbs of product per 10,000 lbs of slurry).

OIL WELL WATER FLOODS
Initial Dose: Add ChemTreat CT-2212 at 100-5,000 ppm of the water flood system (0.09-4.5 gal. ChemTreat CT-2212 per 1,000 gal. Water flood). Add ChemTreat CT-2212 intermittently until control is achieved. Subsequent Dose: Add 50-250 ppm ChemTreat CT-2212 (0.05-0.25 gal. of ChemTreat CT-2212 to each 1,000 gal.) each week to maintain bactericidal control.

DRILLING MUDS, WORKOVER, FRACTURING AND COMPLETIONS FLUIDS
Add 100 to 1,000 ppm ChemTreat CT-2212 (0.39-3.8 gal. ChemTreat CT-2212 per 100 barrels or CL-2212 gal) depending on the severity of the bacterial contamination. Add additional ChemTreat CT-2212 to maintain the proper concentration as the total volume of the system increases with the well depth. For workover fluids, circulate the system until the fluid remains clear. Shut the system down and idle for several hours. Remove the workover fluid. This fluid should be ready for productive use.

PACKER FLUIDS
Add ChemTreat CT-2212 at 50-600 ppm (0.21-2.5 gal. per 100 barrels of fluid) to a freshly prepared fluid, depending on the severity of contamination. Apply once before sealing the treated packer fluid in the well before beginning the casing and production tube.

GAS PRODUCTION AND TRANSMISSION PIPELINES AND SYSTEMS
Add ChemTreat CT-2212 to inhibit microbiological growth in gas production or transmission pipelines and systems supplying liquid and natural gas during commercial production. Inject ChemTreat CT-2212 directly into the transmission pipeline at the earliest available entry point. Add ChemTreat CT-2212 at a dose of 50-600 ppm of the water in the system. Injections to the system should be made on a weekly basis, or as needed to maintain control.

GAS STORAGE WELLS AND SYSTEMS:
Treat individual injection wells with ChemTreat CT-2212 at 500-5,000 ppm and maintain this concentration in the water present in the formation. Treatment of the well should be repeated daily during the summer, then once a week during the winter to prevent gas loss. Injected individual wells should maintain a concentration of 200-2000 ppm ChemTreat CT-2212. Treatment should be repeated yearly, or as needed to maintain control.