

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

**DANGER
KEEP OUT OF REACH OF CHILDREN**

Corrosive. Causes irreversible eye damage. Causes skin burns. Harmful if inhaled. May be fatal if swallowed. Harmful if absorbed through the skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthmatic signs and symptoms in hyper-reactive individuals.

Do not get in eyes, on skin, on clothing.

Avoid breathing vapor. Do not swallow.

Wear goggles, protective clothing, and butyl or nitrile gloves.

Wash thoroughly with soap and water after handling.

Remove contaminated clothing and wash before reuse.

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 local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

STORAGE AND HANDLING

H-550 Microbiocide is incompatible with many commonly used materials of construction such as steel, galvanized iron, aluminum, tin, and zinc. H-550 Microbiocide can be stored and handled in baked phenolic-lined steel, polyethylene, stainless steel, or reinforced epoxy-plastic equipment. This product freezes at about -6°F (-21°C). 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 times (up to about 1 month), temperatures of up to 100°F (37.8°C) can be tolerated but the preferred maximum storage temperature is about 80°F (26.7°C).

A stainless steel centrifugal pump is suggested for transfer service. Spiral-wound stainless steel with TEFLON® Polymer is suitable for gaskets and packing.

Handle in a well-ventilated area. If vapors are irritating to the nose and eyes, special ventilation or respiratory protections (MSHA/NIOSH approved air purifying respirator equipped with an organic vapor cartridge) may be required.

LIMITED WARRANTY AND DISCLAIMER

Seller warrants that the product conforms to its chemical description as contained on this label and is reasonably fit for the purposes stated on this label when used in accordance with directions under normal conditions of use. THE WARRANTIES MADE IN THIS PARAGRAPH ARE SELLER'S SOLE WARRANTIES WITH RESPECT TO THE PRODUCT AND ARE MADE EXPRESSLY IN LIEU OF AND EXCLUDE ANY IMPLIED WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE AND ALL OTHER EXPRESS OR IMPLIED REPRESENTATIONS AND WARRANTIES.

BEFORE HANDLING OR USING THIS PRODUCT, SEE YOUR EMPLOYER AND READ THE CURRENT NALCO COMPANY MATERIAL SAFETY DATA SHEET.

STORAGE AND DISPOSAL

PESTICIDE DISPOSAL: Do not contaminate water, food or feed by storage or disposal. Open dumping is prohibited. Pesticide wastes are toxic. 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 your Environmental Control Agency, or the Hazardous Waste representative at the nearest EPA Regional Office for guidance. **CONTAINER DISPOSAL: Metal Containers or Plastic Containers:** Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or other procedures approved by state and local authorities. **Plastic Containers:** May be incinerated, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke. **Metal Containers:** Must not be incinerated. Do not cut or weld on or near metal containers.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS



Sold by: Nalco Company
1601 West Diehl Road
Naperville, IL 60563

LICENSED

PERIOD **2015-2017** LIC. NO. **9323.101**

Net Contents Shown Elsewhere on the Container

IN CASE OF AN EMERGENCY endangering life or property involving this product, call (800) 424-9300.



LICENSED

PERIOD **2009-2011** LIC. NO.

PERIOD **2012-2014** LIC. NO.

Revised: 1/11/2007



H-550 MICROBIOCIDE

A highly effective Microbiocide for use in controlling Bacteria including Slime Forming Bacteria and Sulfate-Reducing Bacteria, Fungi (Yeast and Molds) and Algae in Air Washers and Industrial Scrubbing Systems, Recirculating Cooling and Process Water Systems Including those that contain Reverse Osmosis Membranes and Service Water and Auxiliary Systems, Heat Transfer Systems, Wastewater Systems Including Wastewater Sludge and Holding Tanks, Beet Sugar Mills and Beet Sugar Mill Process Water Systems, and in Paper Mills and Paper Mill Process Water Systems, Pigments and Filler Slurries for Paper and Paperboard, Water Based Coatings for Paper and Paperboard and in Functional Fluids and Lubricants and Aqueous Metalworking Fluids and for use by Manufacturers as a Preservative in Industrial, Institutional and Consumer Processes and Products and for use in Preserving Aqueous-Based Solutions, Slurries and Emulsions.

Active Ingredient: Glutaraldehyde.....50%
Inert Ingredients:50%
Total:.....100%

KEEP OUT OF REACH OF CHILDREN

**DANGER
FIRST AID**

If swallowed:

• Call a poison control center or a doctor immediately for treatment advice.

• DO NOT INDUCE VOMITING.

• Do not give anything to drink.

If in eyes:

• Wash immediately and continuously with flowing water for at least 30 minutes.

• Remove contact lenses after the first 5 minutes and continue washing. Obtain prompt medical consultation, preferably from an ophthalmologist.

• Call a poison control center or a doctor immediately 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 a doctor for treatment advice.

If inhaled:

• Move person to fresh air.

• If person is not breathing, call 911 or an ambulance, and then give artificial respiration, preferably mouth-to-mouth if possible.

• Call a poison control center or a doctor for further treatment advice.

NOTE TO PHYSICIAN: Aspiration may cause lung damage. Probable mucosal damage may contraindicate the use of gastric lavage. Have the MSDS and, if available, the product container or label with you when calling a poison control center or a doctor, or going for treatment.

SEE SIDE PANEL FOR ADDITIONAL PRECAUTIONARY STATEMENTS

DIRECTIONS FOR USE

This is a violation of Federal law to use this product in a manner inconsistent with its labeling.

AIR WASHERS AND INDUSTRIAL SCRUBBING SYSTEMS/RECIRCULATING COOLING AND PROCESS WATER SYSTEMS

This product may be used only in industrial air washers and air washer systems which have mist eliminating components.

H-550 Microbiocide should be added at the application rates described below, to a water treatment system at a convenient point of uniform mixing such as the basin area. Addition may be made intermittently (SLUG DOSE) or continuously. Badly fouled systems can be shock treated with H-550 Microbiocide. Under these conditions, blowdown should be discontinued for up to 24 hours.

H-550 Microbiocide can be used in industrial process water systems that contain ultra filtration units and non-medical reverse osmosis membranes (where approved for compatibility by the membrane manufacturer) and associated distribution systems.

INTERMITTENT (SLUG DOSE) METHOD

Initial Dose: When the system is noticeably fouled, apply 11.3 to 22.7 fluid ounces (100 to 200 ppm product) of H-550 Microbiocide per 1,000 gallons of water in the system or 89 to 177 mL of H-550 Microbiocide per 1,000 liters of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 4.5 to 11.3 fluid ounces (40 to 100 ppm) of H-550 Microbiocide per 1,000 gallons of water in the system weekly or 35 to 89 mL of H-550 Microbiocide per 1,000 liters of water in the system weekly, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably fouled apply 11.3 to 22.7 fluid ounces (100 to 200 ppm product) of H-550 Microbiocide per 1,000 gallons of water in the system or 89 to 177 mL of H-550 Microbiocide per 1,000 liters of water in the system.

Subsequent Dose: Maintain this treatment level by starting a continuous feed of 2.3 to 11.3 fluid ounces (20 to 100 ppm product) of H-550 Microbiocide per 1,000 gallons of water in the system per day or 17.7 to 88.6 mL of H-550 Microbiocide per 1,000 liters of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

UN 3265, CORROSIVE LIQUID, ACIDIC, ORGANIC, N.O.S., (contains Glutaraldehyde), 8, PG II

SERVICE WATER AND AUXILIARY SYSTEMS

H-550 Microbiocide should be used at the same application rates, and in the same manner as described above. It should be added to the system at a point that will allow for uniform mixing throughout the system.

HEAT TRANSFER SYSTEMS

(Evaporative Condensers, Dairy Sweetwater Systems, Hydrostatic Sterilizers and Retorts and Pasteurizers and Warmers) H-550 Microbiocide should be used 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.

INDUSTRIAL WASTEWATER SYSTEMS

(Wastewater Systems, Wastewater Sludge and Wastewater Holding Tanks) H-550 Microbiocide should be added to a wastewater system or sludge at a convenient point of uniform mixing such as the digester. Add 0.4 to 2.0 gallons (450 to 2,250 ppm product) of H-550 Microbiocide per 1,000 gallons of wastewater or sludge or 399 mL to 1,994 mL of H-550 Microbiocide per 1,000 liters of wastewater or sludge.

BET SUGAR MILLS AND BEET SUGAR MILL PROCESS WATER SYSTEMS

H-550 Microbiocide should be added to the system at a point of uniform mixing such as the diffuser, transport water pump, weir box, or diffuser feed water pump. Additions may be made intermittently (SLUG DOSE) or continuously.

INTERMITTENT (SLUG DOSE) METHOD

Initial Dose: When the system is noticeably contaminated, apply 5.4 to 13.6 fluid ounces (200 to 500 ppm product) of H-550 Microbiocide per ton or 177 to 442 mL of H-550 Microbiocide per metric ton of sliced beets as a slug dose. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.8 to 8.2 fluid ounces (30 to 300 ppm) of H-550 Microbiocide per ton or 27 to 270 mL of H-550 Microbiocide per metric ton of sliced beets in the systems as a slug dose as necessary to maintain control. The total should not exceed 106 gallons per 1,000 tons of beets sliced per day.

CONTINUOUS FEED METHOD

Initial Dose: When the system is noticeably contaminated, add 5.4 to 13.6 fluid ounces/minute (200 to 500 ppm product) of H-550 Microbiocide per ton or 177 to 442 mL/minute of H-550 Microbiocide per metric ton of beets sliced per minute in the system via automatic pump of suitable construction.

Subsequent Dose: When microbial control is evident, add 0.8 to 8.2 fluid ounces/minute (30 to 300 ppm) of H-550 Microbiocide per ton or 27 to 270 mL/minute of H-550 Microbiocide per metric ton of beets sliced per minute in the system, or as necessary to maintain control. The total should not exceed 106 gallons per 1,000 tons of beets sliced per day.

PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS

H-550 Microbiocide should be added to the paper making system at a point of uniform mixing such as the beaters, broke chest pump, save-all tank, or white-water tank.

Initial Dose: When the system is noticeably contaminated, add 0.5 to 3.0 lbs of H-550 Microbiocide per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems should be boiled out prior to initial treatment.

Subsequent Dose: When microbial control is evident, add 0.3 to 2.0 lbs of H-550 Microbiocide per ton of pulp or paper (dry basis) as a slug dose as necessary to maintain control.

PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD

(For use in food and non-food contact pigments and filter slurries) Use from 0.1 to 0.6 lbs. of H-550 MICROBIOCIDE per 1,000 lbs. of dry powder to produce a concentration of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

WATER BASED COATINGS FOR PAPER AND PAPERBOARD

NOTE: For use in non-food contact coatings only. Use from 0.1 to 0.6 lbs. of H-550 Microbiocide per 1,000 lbs. of dry powder to produce a concentration of 100 to 600 ppm as product (based on slurry solids) in the mixed slurry.

AQUEOUS METALWORKING FLUIDS

H-550 Microbiocide should be added to a metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be made intermittently (SLUG DOSE) at intervals of one week or less.

Initial Dose: When the system is noticeably fouled apply 1.8 to 5.4 gallons of H-550 Microbiocide per 10,000 gallons of metalworking fluid to the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 0.7 to 3.6 gallons of H-550 Microbiocide per 10,000 gallons of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment is begun.

WATER BASED CONVEYOR LUBRICANTS

(Brewery, Juice, Dairy, Beverage, and Food Processing Systems)

Avoid Contamination of food in application of product.

Thoroughly clean all tracks and conveyors to remove gross soil. Rinse well. Use an automatic feed system as recommended by your NALCO representative to provide 1.1 to 6.8 fluid ounces (50 to 300 ppm active) of H-550 Microbiocide per 100 gallons of diluted lubricant.

GENERAL PRESERVATIVE USE

H-550 Microbiocide is recommended for use in aqueous or water containing products and systems, including industrial, institutional and consumer in-can processes and products, to control the growth of bacteria and fungi. For effective preservation, add to H-500 to the product formulation at a rate of 0.02% to 0.20% (200 to 2,000 ppm) based on the water content of the product (0.2 to 2.0 lbs. H-550 Microbiocide per 1,000 lbs. water content). Mix uniformly.

PERSERVATIVE FOR CONCENTRATES

For use in concentrates where effective preservation is needed after dilution, add H-550 Microbiocide to the product formulation at a rate such that the diluted end-use product will contain 0.02% to 0.20 % H-550 Microbiocide.

At no time during the preservation process should the level of H-550 Microbiocide exceed 2.0%.

REVERSE OSMOSIS MEMBRANES

For effective preservation of reverse osmosis elements (where approved for compatibility by membrane manufacturer), immerse elements in a tank containing 0.2% to 2.0% H-550 Microbiocide.

H-550 Microbiocide can also be added to in-line recirculating systems for preservation of installed out-of-service reverse osmosis equipment (where approved for compatibility by membrane manufacturer). Add 0.2% to 2.0% H-550 Microbiocide to the tank in the circulating system. Maintain the concentration of H-550 Microbiocide by periodic addition to counteract any system leakage.

CONCRETE ADMIXTURES

For effective preservation of concrete admixtures, add H-550 Microbiocide to the product formulation at a rate of 2,000 to 8,000 ppm based on the weight of the admixture (2.0 to 8.0 lbs. H-550 Microbiocide per 1,000 lbs. concrete admixture). Mix uniformly.