FORMULA 310


ACTIVE INGREDIENTS:
GLUTARALDEHYDE 15%
INERT INGREDIENTS 15%
TOTAL 100%

KEEP OUT OF REACH OF CHILDREN

DANGER

FIRST AID

IF SWALLOWED:
• Call a poison control center or 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 15-30 minutes.
• Call a poison control center or a doctor immediately for treatment advice.

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 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 doctor or going for treatment.

IN CASE OF AN EMERGENCY endangering life or property involving this product, call CHECENT at 1-800-424-9000 or Rocky Mountain Poison Control Center at 1-800-424-8760

SOLD BY: GARRATT-CALLAHAN COMPANY
PRODUCT NO. 0918326
NET WEIGHT 125 LBS. (55.7 KG)

PRESERVATION STATEMENTS

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER

KEEP OUT OF REACH OF CHILDREN

Corrosive. Causes irreversible eye damage. Causes skin irritation. Harmful if inhaled. Harmful if swallowed. Harmful if absorbed through skin. Prolonged or frequently repeated skin contact may cause allergic reactions in some individuals. Causes asthma-like signs and symptoms in hyperreactive individuals.

Do not get in eyes, on skin, or 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 sewer treatment plant authority. For guidance, contact your State Pollutant Control Agency or your local authority.

DIRECTIONS FOR USE

It 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-water systems which have mist-eliminating components. FORMULA 310 should be added at the application rates described below in a water-treatment system at a convenient point of uniform mixing such as the basin area. Additions may be made intermittently (SLUG Doses) or continuously. Badly fouled systems can be shock treated with FORMULA 310. Under these conditions, blowdowns should be discontinued for up to 24 hours. FORMULA 310 may 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.

METHOD (SLUG Dose) INTERMITTENT (SLUG Doses)

Initial Dose: When the system is noticeably fouled, supply 4.1 to 8.2 fluid ounces of FORMULA 310 per 100 gallons of water in the system. Repeat until control is achieved. Subsequent Dose: When microbial control is evident, increase to 18 to 4.1 fluid ounces of FORMULA 310 per 100 gallons of water in the system weekly, or as needed to maintain control. Badly fouled systems must be scrubbed before treatment is begun.

DIRECTORS OF USE

The EPA has determined that this product is acceptable for use under the terms of a TSCA Exemption. The product has been evaluated under the provisions of the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA). The product is recommended for use by this manufacturer.
**DIRECTIONS FOR USE - cont**

**CONTINUOUS FEED METHOD**

Initial Dose: When the system is noticeably contaminated, add 18.6 to 49.1 fluid ounces (547 to 1,467 ppm product) of FORMULA 310 per ten or 340 to 860 milliliters (100 to 1,000 ppm) of FORMULA 310 per metric ton of beefs killed per minute in the system via automatic pump of suitable construction.

Subsequent Dose: When microbial control is evident, add 2.34 to 4.4 fluid ounces (66 to 156 ppm) of FORMULA 310 per ten or 90 to 210 milliliters per minute of FORMULA 310 per metric ton of beefs killed per minute in the system, or as necessary to maintain control. The total should not exceed 760 gallons per 1,000 tons of beefs killed per day.

**PAPER MILLS AND PAPER MILL PROCESS WATER SYSTEMS**

FORMULA 310 should be added to the paper making system at a point of uniform mixing such as the beater, broke chest pump, sewer-all tank, or white water tank.

Initial Dose: When the system is noticeably contaminated, add 1.7 to 3.9 fluid ounces of FORMULA 310 per ton of pulp or paper (dry basis) as a slug dose. Repeat until control is achieved. Heavily fouled systems should be flushed out prior to initial treatment.

Subsequent Dose: When microbial control is evident, add 0.8 to 2.5 fluid ounces of FORMULA 310 per ton of pulp or paper (dry basis) as a slug dose to maintain control.

**PIGMENTS AND FILLER SLURRIES FOR PAPER AND PAPERBOARD**

(For use in food and non-food contact pigments and filler slurries)

Use from 0.33 to 2.5 gallons of FORMULA 310 per 1,000 lbs. of dry powder to produce a concentration from 330 to 2,000 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 0.33 to 2.5 gallons of FORMULA 310 per 1,000 lbs. of dry powder to produce a concentration from 330 to 2,000 ppm as product (based on slurry solids) in the mixed slurry.

**AQUEOUS METALWORKING FLUIDS**

FORMULA 310 should be added to the metalworking fluid system at a point of uniform mixing such as the fluid collection tank. Additions may be made intermittently (SLUG DOSING) at intervals of one week or less.

Initial Dose: When the system is noticeably fouled, apply 8.2 to 24.8 fluid ounces (100 to 300 ppm active) of FORMULA 310 per 109 gallons of metalworking fluid to the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 3.3 to 6.4 fluid ounces (40 to 240 ppm active) of FORMULA 310 per 109 gallons of metalworking fluid to the system weekly, or as needed to maintain control. Badly fouled systems should be cleaned before treatment begins.

**WATER BASED CONVEYOR LUBRICANTS**

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

Avoid contamination or recontamination of products.

Thoroughly clean all contacts and conveyors to remove gross soil. Rinse well. Use an automatic feed system as recommended by your Garrett Callahan representative to provide 4.1 to 24.8 fluid ounces (60 to 300 ppm active) of FORMULA 310 per 100 gallons of dilute lubricant.

**GENERAL PRESERVATIVE USE**

FORMULA 310 is recommended for use in aqueous 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 FORMULA 310 to the product formulation at a rate such that the diluted end-use product will contain 0.06% to 0.6% (560 to 6,000 ppm) based on the water content of the product. 0.6% to 6.6 lbs FORMULA 310 per 1,000 lbs water content. Mix uniformly.

**PREVENTIVE FOR CONCENTRATES**

For use in concentrates where effective preservation is needed after dilution, add FORMULA 310 to the product formulation at a rate such that the diluted end-use product will contain 0.06% to 0.6% FORMULA 310. At no time during the preservation process should the level of FORMULA 310 exceed 8.5%.

**REVERSE OSMOSIS MEMBRANES**

For effective preservation of reverse osmosis membranes (where approved for compatibility by membrane manufacturers), immerse elements in a tank containing 0.6% to 6% FORMULA 310. FORMULA 310 can also be added to in-line recirculating systems for preservation of installed off-service reverse osmosis equipment (where approved for compatibility by membrane manufacturers). Add 0.6% to 6% FORMULA 310 to the tank in the circulating system. Maintain the concentration of FORMULA 310 by periodic addition to counteract any system leakage.

**CONCRETE ADMIXTURES**

For effective preservation of concrete admixtures, add FORMULA 310 to the product formulation at a rate of 0.625 to 267 ppm based on the weight of the admixture (0.7 to 26.7 lbs FORMULA 310 per 1,000 lbs concrete admixture). Mix uniformly.

**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 of fitness for a particular purpose and all other express or implied representations and warranties.