H-430 Microbiocide

CONTROLS BACTERIA, FUNGI, AND ALGAE IN PAPER MILLS, INDUSTRIAL RECIRCULATING WATER COOLING TOWERS AND IN ONCE-THROUGH FRESH AND SEA WATER INDUSTRIAL COOLING WATER SYSTEMS; REVERSE OSMOSIS SYSTEMS; CONTROLS SLIME-FORMING BACTERIA AND FUNGI IN AIR-WASHER SYSTEMS

NOTICE: DO NOT SHIP OR STORE WITH FOODS, FEEDS, DRUGS OR CLOTHING. FOR INDUSTRIAL USE ONLY.

ACTIVE INGREDIENT:	
2,2-Dibromo-3-nitrilopropionamide	**5%**
INERT INGREDIENTS	**95%**

KEEP OUT OF REACH OF CHILDREN
DANGER

EPA Registration No. 10445-17

EPA Establishment No. 10445-PA-01
EPA Establishment No. 10445-CA-01
EPA Establishment No. 10445-TX-01

ACCEPTED
OCT 21 1997
Under the Federal Insecticide, Fungicide, and Rodenticide Act as amended, for the pesticide, registered under EPA Reg. No. 10445-17

CALGON CORPORATION
CALGON CENTER
POST OFFICE BOX 1346
PITTSBURGH, PA 15230

PRECAUTIONARY STATEMENTS
HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER:
CAUSES SEVERE BURNS OF EYES
CAUSES SKIN IRRITATION
HARMFUL IF SWALLOWED
Do not get in eyes, on skin or clothing.
Wear chemical worker's goggles when handling.
Wash thoroughly after handling.

FIRST AID:
In case of eye contact, flush eyes immediately with plenty of water for at least 15 minutes and get medical attention.
In case of skin contact, wash with soap and plenty of water. Wash contaminated clothing before reuse. Get medical attention if irritation persists.
If swallowed, call a physician or Poison Control Center. Drink 1 or 2 glasses of water and induce vomiting by touching back of throat with finger or, if available, by administering syrup of ipecac. Do not induce vomiting or give anything by mouth to an unconscious person.

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 DISPOSAL

Do not contaminate water, food or feed by storage disposal.
Storage - To maintain product quality, store at temperatures below 60°C. Keep container tightly closed when not in use.
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 DISPOSAL

Do not reuse empty container. Triple rinse (or equivalent). Then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill or incineration, or, if allowed by state and local authorities, by burning. If burned, stay out of smoke.

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NOTICE: Seller warrants that the product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY or FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions not reasonably foreseeable to seller, and buyer assumes the risk of any such use.

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DIRECTIONS FOR USE

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

NOTE: Add H-430 SEPARATELY to the system. DO NOT mix it with other additives, in order to avoid decomposition of H-430 due to the high pH of many additive formulations.

Add H-430 to the basin (or any other part of uniform mixing). Addition should be made with a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the retention time in the system.
Optimum performance with this product is attained by continuous or intermittent treatment. If "shock" treatment is used, the blowdown should be discontinued for 24-48 hrs.

INDUSTRIAL RECIRCULATING WATER COOLING TOWERS FOR CONTROL OF BACTERIA

Add 0.49 - 4.9 fluid oz. H-430/1,000 gal. of water to the system depending on the severity of contamination (5 - 47 ppm H-430).

Intermittent or Slug Method

Initial Dose: When the system is noticeably fouled, add 2.4 - 4.9 fluid oz. H-430/1,000 gal. of water to the system (23 - 47 ppm H-430). Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 1.2 - 4.9 fluid oz. H-430/1,000 gal. of water to the system every 4 days, or as needed to maintain control (12 - 47 ppm H-430).

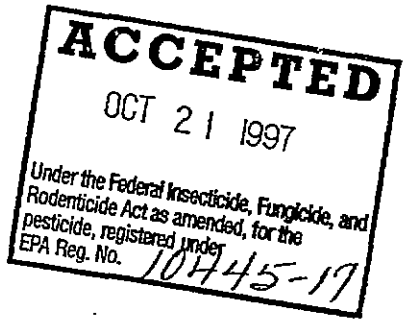
Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method

Initial Dose: When the system is noticeably fouled, add 2.4 - 4.9 fluid oz. H-430/1,000 gal. of water to the system (23 - 47 ppm H-430). Repeat until control is achieved.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.49 - 2.4 fluid oz. H-430/1,000 gal. of water to the system lost by blowdown (5 - 23 ppm H-430).

Badly fouled systems must be cleaned before treatment is begun



FOR CONTROL OF ALGAE AND FUNGI

Add 14.8 - 48.6 fluid oz. H-430/1,000 gal. of water to the system, depending on the severity of contamination (143 - 470 ppm H-430).

Intermittent or Slug Method

Initial Dose: When the system is noticeably fouled, add 24.6 - 48.6 fluid oz. H-430/1,000 gal. of water to the system (238 - 470 ppm H-430). Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 14.8 - 48.6 fluid oz. H-430/1,000 gal. of water to the system daily, or as needed to maintain control (143 - 470 ppm H-430).

Badly fouled systems must be cleaned before treatment is begun.

Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 24.6 - 48.6 fluid oz. H-430/1,000 gal. of water to the system (238 - 470 ppm H-430). Repeat until control is achieved.
Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 14.8 - 48.6 fluid oz. H-430/1,000 gal. of water to the system per day (143 - 470 ppm H-430).
Badly fouled systems must be cleaned before treatment is begun.

ONCE -THROUGH INDUSTRIAL COOLING WATER SYSTEMS

For controlling bacteria, fungi, and algae in once-through and closed-cycle fresh and sea water cooling systems, cooling ponds, canals, and lagoons, add H-430 to the system inlet water or before any other contaminated area in the system. Addition should be made with a metering pump; it may be continuous or intermittent depending on the severity of the contamination when treatment is begun, and the retention time in the system.

FOR CONTROL OF BACTERIA

Add 0.41 - 5.0 fluid oz. H-430/1,000 gal. of water to the system based on the flow rate through the system, depending on the severity of contamination (4-48 ppm H-430).
Intermittent Method
Initial Dose: When the system is noticeably fouled, add 2.5 - 5.0 fluid oz. H-430/1,000 gal. of water to the sytstem (24 - 48 ppm H-430). Minimum treatment intervals should be 15 minutes. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 1.2 - 5.0 fluid oz. H-430/1,000 gal. of water to the system intermittently as needed to maintain control (12 - 48 ppm H-430).
Badly fouled systems must be cleaned before treatment is begun.
Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 2.5 - 5.0 fluid oz. H-430/1,000 gal. of water continuously to the system (24 - 48 ppm H-430).
Subsequent Dose: When microbial control is evident, pump a continuous feed of 0.41 - 2.5 fluid oz. H-430/1,000 gal. of water to the system (4 - 24 ppm H-430).
Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add 14.9 - 48.8 fluid oz. H-430/1,000 gal. of water to the system based on the flow rate through the system, depending on the severity of contamination (144 - 472 ppm H-430).
Intermittent Method
Initial Dose: When the system is noticeably fouled, add 24.8 - 48.8 fluid oz. H-430/1,000 gal. of water to the system (240 - 472 ppm H-430). The minimum treatment interval should be 15 minutes. Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 14.9 - 48.8 fluid oz. H-430/1,000 gal. of water to the system daily or as needed to maintain control (144 - 472 ppm H-430). The minimum treatment interval should be 15 minutes.
Badly fouled systems should be cleaned before treatment is begun.

Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 24.8 - 48.8 fluid oz. H-430/1,000 gal. of water to the system (240 - 472 ppm H-430).
Subsequent Dose: When microbial control is evident, pump a continuous feed of 14.9 - 48.8 fluid oz. H-430/1,000 gal. of water to the system (144 - 472 ppm H-430).
Badly fouled systems should be cleaned before treatment is begun.

AIR WASHER SYSTEMS

Add 1 - 32 fluid oz. H-430/1,000 gal. of water to the system, depending upon the severity of the contamination to control slime-forming bacteria and fungi in industrial air washer systems (10 - 309 ppm H-430).
Intermittent or Slug Method
Initial Dose: When the system is noticeably fouled, add 20 - 32 fluid oz. H-430/1,000 gal. of water to the system (193 - 309 ppm H-430). Repeat until control is achieved.
Subsequent Dose: When microbial control is evident, add 1 - 16 fluid oz. 430/1,000 gal. of water to the system every 2 days or as needed to maintain control (10 - 155 ppm H-430).
Badly fouled systems should be cleaned before treatment is begun.
Continuous Feed Method
Initial Dose: When the system is noticeably fouled, add 20 - 32 fluid oz. H-430/1,000 of water to the system (193 - 309 ppm H-430).
Subsequent 6Dose: Maintain this level by pumping a continuous feed of 1 - 16 fluid oz. H-430/1,000 gal. water to the system per day (10 - 155 ppm H-430).
Badly fouled systems should be cleaned before treatment is begun.

PAPER MILLS

For the control of bacteria, fungal, and yeast growth in pulp, paper and paperboard mills, add H-430 at the rate of 0.75 - 2.5 lb./ton of pulp or paper (dry basis). Addition may be continuous or intermittent, depending upon the type of system and the severity of contamination. It should be made with a metering pump at a location that will insure uniform distribution of H-430 in the mass of fiber and water, such as the beaters, jordan inlet or discharge, broke chests, furnish chests, save-alls, and white water tanks.
Heavily fouled systems should be boiled out, then treated with 0.75 - 1.75 lb. H-430/ton of paper (dry basis) as necessary for control. Moderately fouled systems should be treated continuously with 1.75 - 2.50 lbs. H-430/ton of paper (dry basis) until the slime accumulations is controlled. Addition rates can then be reduced to 0.75 - 1.75 lbs. H-430/ton of paper on a continuous or intermittent basis, as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.
Slightly fouled systems should be treated continuously with 0.75 - 1.75 lbs. H-430/ton of paper (dry basis) until the slime is controlled, then added on an intermittent basis to maintain control.

REVERSE OSMOSIS SYSTEMS

H-430 may be used to control bacteria and reduce biofouling in industrial membrane systems (reverse osmosis, ultrafiltration, microfiltration). Acceptable applications include reverse osmosis for the production of boiler makeup water, rinsing of electric components, and industrial wastewater treatment.

H-430 may be either slug fed or continuously fed to the feed streams of membrane systems. For slug feed, add between 50 and 70 ppm H-430 for 30 minutes to 3 hours. Frequency of addition should be every 5 days or as needed. When fed continuously, feed rate should be between 10 and 100 ppm H-430.

NOTE: For industrial systems in which H-430 residuals cannot be tolerated. H-430 must be slug fed. During and for 30 minutes to 1 hour following chemical addition, permeated and concentrate systems must be diverted to waste.

For additional information regarding incidents involving human and environmental exposure, call Calgon Corporation , Health and Environmental Affairs at 412-494-8000.

H-430/9-97/EPA Sub.

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