



Directions for Use

BUSAN 94

BUSAN is a registered trademark.

1448-72

5-22-2003

ACTIVE INGREDIENT(S)	
2,2-Dibromo-3-nitropropionamide.....	20.0%
INERT INGREDIENTS	80.0%
TOTAL	100.0%

KEEP OUT OF REACH OF CHILDREN DANGER

FIRST AID

If in Eyes	- Hold eyes 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 further treatment advice.
If on Skin, Clothes	- Take off contaminated clothing. - Rinse skin immediately with plenty of water for 15-20 minutes. - Call a poison control center for treatment advice.
If Swallowed	- Call 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.

HOT 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 901-278-0330 or 1-800-BUCKMAN for emergency medical treatment information.

NOTE TO PHYSICIAN

Probable mucosal damage may contraindicate the use of gastric lavage.

Precautionary Statements

HAZARDS TO HUMANS AND DOMESTIC ANIMALS

DANGER: Corrosive. Causes severe burns of eyes. May burn skin. May be harmful or fatal if swallowed. Do not get in eyes, on skin, or on clothing. Wear chemical workers' goggles and rubber gloves when handling. Do not inhale fumes or vapor. Wash thoroughly after handling.

ENVIRONMENTAL HAZARDS: 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.

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

NOTE: BUSAN 94 must be added separately to systems. Do not mix it with other additives; the high pH of many additive formulations will cause decomposition of BUSAN 94.

PULP AND PAPER MILLS: For sludge control in pulp and paper mill systems, BUSAN 94 is employed at 75 to 250 g per tonne (0.15 - 0.50 lb. per ton of pulp or paper dry basis). Addition may be made continuously or intermittently as needed to control the growth of microorganisms. As a general rule, intermittent treatment at the specified rates for periods of 2 to 6 hours out of each 8, each 12, or each 24 hours is recommended. The concentration and frequency of treatment are adjusted according to the rate of slime accretion. Best results are obtained by feeding BUSAN 94 into the suction side of the fan pump or into the white water or stock moving to the fan pump. Before treatment with BUSAN 94 is begun, it is recommended that the system be cleaned thoroughly.

COOLING WATER SYSTEMS: BUSAN 94 is used to control the growth of algae, fungi, and bacteria in commercial and industrial recirculating cooling water systems. If the system is badly fouled, it is recommended that before treatment with BUSAN 94 is begun, the system should be cleaned thoroughly, drained, flushed, and refilled with fresh water. BUSAN 94 should then be added to the water cooling tower sump, continuously or intermittently, as required to maintain control. If "shock" dosing is used, the blowdown should be discontinued for 24 - 48 hours after treatment. For Control of Fungi and Algae: If intermittent or slug dose treatment is used, add an initial dose of 48 - 95 mL BUSAN 94 per cubic meter water (0.048 - 0.095 gal BUSAN 94 per 1000 gal water), based on the total volume of water in the system. Repeat until control is evident. Then treat the system daily, or as needed to maintain control, with 29 - 95 mL BUSAN 94 per cubic meter water (0.029 - 0.095 gal BUSAN 94 per 1000 gal water) in the system. If the continuous feed method of treatment is used, make initial dose as described above. Then treat daily, or as needed, with 29 - 95 mL BUSAN 94 per cubic meter water (0.029 - 0.095 gal BUSAN 94 per 1000 gal water) in the system by means of a chemical metering pump. For Control of Bacteria: If intermittent or slug dose treatment is used, add an initial dose of 4.8 - 9.5 mL BUSAN 94 per cubic meter water (0.0048 - 0.0095 gal BUSAN 94 per 1000 gal water), based on the total volume of water in the system. Repeat until control is evident. Then treat every 4 days, or as needed to maintain control, with 2.4 - 9.5 mL BUSAN 94 per cubic meter water (0.0024 - 0.0095 gal BUSAN 94 per 1000 gal water) in the system. If the continuous feed method of treatment is used, make initial dose as described above and repeat until control is evident. Then treat continuously with 0.48 - 4.8 mL BUSAN 94 per cubic meter water (0.00048 - 0.0048 gal BUSAN 94 per 1000 gal water) based on the total volume of makeup water.

ONCE-THROUGH INDUSTRIAL COOLING WATER SYSTEMS: BUSAN 94 is used to control bacteria, fungi, and algae in once-through and closed-cycle fresh and sea water cooling systems, cooling ponds, canals, and lagoons. BUSAN 94 should be added to the system inlet water or before any other contaminated area in the system by means of a metering pump. Treatment may be on a continuous or intermittent basis depending on the severity of the contamination and the retention time in the system. For Control of Fungi and Algae: If intermittent or slug dose treatment is used, add an initial dose of 60 - 118 ppm BUSAN 94 based on the flow rate through the system. The minimum treatment interval should be 15 min. Repeat until control is evident. Then treat the system with 36 - 118 ppm BUSAN 94 as needed to maintain control. If the continuous feed method of treatment is used, make initial dose as described above. Then treat the system with 36 - 118 ppm BUSAN 94 by means of a chemical-metering pump. For Control of Bacteria: If intermittent or slug dose treatment is used, add an initial dose of 6 - 12 ppm BUSAN 94 based on the flow rate of the system. Minimum treatment interval should be 15 min. Repeat until control is evident. Then add 3 - 12 ppm BUSAN 94 as needed to maintain control. If the continuous feed method of treatment is used, make initial dose as described above. Then add 1 - 6 ppm BUSAN 94 by means of a metering pump as needed to maintain control.

AIR WASHER SYSTEMS: BUSAN 94 is used to control slime-forming bacteria and fungi in industrial air-washer systems, by intermittent or continuous treatment of the water in the system. The system should be cleaned, refilled with fresh water, and treated regularly with BUSAN 94. If intermittent or slug dose treatment is employed, add an initial dose of 3 - 95 mL BUSAN 94 per cubic meter water (0.003 - 0.095 gal per 1000 gal water), based on the total volume of water in the system. Repeat until control is evident. Then treat every 2 days, or as needed to maintain control, with 1.5 - 47 mL BUSAN 94 per cubic meter water (0.0015 - 0.047 gal BUSAN 94 per 1000 gal water) in the system. If the continuous feed method of treatment is used, make initial dose as described above and repeat until control is evident. Then treat daily, or as needed, with 1.5 - 47 mL BUSAN 94 per cubic meter water (0.0015 - 0.047 gal BUSAN 94 per 1000 gal water) in the system, by means of a chemical-metering pump.

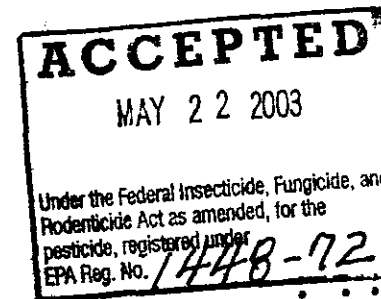
REVERSE OSMOSIS SYSTEMS: BUSAN 94 may be used to control microbiological fouling in reverse osmosis systems use for process wastewater and other non-potable applications. BUSAN 94 should be fed to the membrane feedwater at a rate of 20-80 ppm (2.75-11.0 fl. oz./1000 gal.). The product should be added continuously for a time period of 1-24 hours, 1-7 days each week depending on the severity of the problem. For off-line cleaning, BUSAN 94 should be added to provide a level of 100-400 ppm (13.75-55 fl. oz./1000 gal.) in the soak solution.

INDUSTRIAL PRESERVATIVE APPLICATIONS: BUSAN 94 may be used to reduce microbiological contamination in raw materials and/or products such as aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleansers. To reduce microbiological contamination add BUSAN 94 to the material or product at a concentration of 25 to 2,000 ppm by weight. This concentration is equivalent to 2.8 to 224.0 fluid ounces BUSAN 94 per 1,000 gallons or 21.4 to 1,712.0 milliliters BUSAN 94 per 1,000 liters. The required concentration will depend on the material being treated and the level of contamination present.

DIRECTIONS FOR TREATING PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACTERIA add BUSAN 94 at a concentration of 1.0 to 10.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Addition should be CONTINUOUS and should be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add BUSAN 94 to the system in a location where contact time will be 30 minutes or greater before reaching the outfall. **TO USE AS A CO-TREATMENT WITH CHLORINE** add 0.4 - 1.5 ppm BUSAN 94 by weight of water treated. Chlorination should result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level). Addition should be CONTINUOUS and made at a point just after the initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. BUSAN 94 should be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

Storage and Disposal

Do not contaminate water, food, or feed by storage or disposal. **PESTICIDE STORAGE:** To maintain product quality, store at temperatures below 60 degrees 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 by other procedures approved by state and local authorities.



Manufactured by

Buckman Laboratories, Inc.

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(901) 278-0330 or 1-800-BUCKMAN

EPA Est. No. 464-MI-1, 61688-AL-01, 1448-TN-1

EPA Reg. No. 1448-72

Net contents are marked on the container.

Product Weight 10.4 lbs/gal 1.25 kg/L

HMS / NPCA Ratings

Last Revision

Health 3 Flammability 1 Reactivity 1

04/25/2003