

BUSAN® 94_{NA}
LIQUID MICROBICIDE
Solution

COMMERCIAL

A microbiocidal bactericide, fungicide, algicide and slimicide in treating recirculation cooling water in industrial cooling systems and for paper mills, non-marine uses in enhanced oil recovery systems, and metalworking cutting fluids containing water.

ACTIVE INGREDIENT:

2,2-Dibromo-3-Nitrilopropionamide 20%

REGISTRATION NO.: 33794

PEST CONTROL PRODUCTS ACT

DANGER



POISON



CORROSIVE

**DANGER - CORROSIVE TO EYES AND SKIN
POTENTIAL SKIN SENSITIZER**

**READ THE LABEL BEFORE USING
KEEP OUT OF THE REACH OF CHILDREN**

NET CONTENTS: 600 Litres

Buckman Laboratories of Canada, Ltd.
351 Joseph-Carrier Street, Vaudreuil-Dorion (Quebec) J7V 5V5

24-HOURS EMERGENCY TELEPHONE NUMBER:
Chemtrec 703-741-5970

PRECAUTIONS

DANGER KEEP OUT OF REACH OF CHILDREN

DANGER: CORROSIVE TO EYES AND SKIN; POTENTIAL SKIN SENSITIZER. May be harmful or fatal if swallowed or inhaled. Do not get in eyes, on skin, or on clothing. Do not inhale vapours or spray mist. Wear a long-sleeved shirt, long pants, shoes plus socks, full-face protection and chemical-resistant gloves when handling. Wear a respirator if the area is not well ventilated and during cleaning, maintenance and repair activities. Users should wash hands and face before eating, drinking, chewing gum, using tobacco, or using the toilet. Users should remove clothing immediately if pesticide comes in contact with skin through soaked clothing or spills. Then wash skin thoroughly and put on clean clothing. Wash contaminated clothing separate from other laundry prior to reuse. Users should remove protective clothing immediately after handling this product. Wash the outside of gloves before removing. As soon as possible, wash thoroughly and change into clean clothing.

ENVIRONMENTAL PRECAUTIONS: This product is toxic to fish and other aquatic organisms. It is not to be used in circumstances that would cause or allow it to enter lakes, streams, ponds, estuaries, oceans or other waters in contravention of federal or provincial regulatory requirements. The requirements of applicable laws should be determined before using the product.

Do not discharge effluent containing this product into sewer systems without previously notifying the local sewage treatment plant authority.

NOTE: Do not discharge treated water into estuaries, lakes, streams, ponds, or public waters.

CHEMICAL AND PHYSICAL HAZARDS: Reaction with strong reducing agents may be explosive. Avoid misting.

FIRST AID

If swallowed: Call a poison control centre 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 a poison control centre or doctor. Do not give anything by mouth to an unconscious person.

If on skin or clothing: Take off contaminated clothing. Rinse skin immediately with plenty of water for 15–20 minutes. Call a poison control centre or doctor 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 centre or doctor for further treatment advice.

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 centre or doctor for treatment advice.

Take container, label or product name and Pest Control Product Registration Number with you when seeking medical attention.

TOXICOLOGICAL INFORMATION: Dilution of an ingested corrosive is a safer first aid treatment than emesis. Treat symptomatically.

STORAGE: To maintain product quality store in a dark, cool, dry, well-ventilated area, not above 30°C, rotate and use stock within three months. Store in well closed original containers, away from energy sources, combustible organic materials and oxidizers. Do not contaminate water, food or feed by storage or disposal.

DISPOSAL

1. Triple- or pressure-rinse the empty container. Add the rinsings to the treatment site.
2. Follow provincial instruction for any required additional cleaning of the container prior to its disposal.
3. Make the empty container unsuitable for further use.
4. Dispose of the container in accordance with provincial requirements.
5. For information on disposal of unused, unwanted product, contact the manufacturer or the provincial regulatory agency. Contact the manufacturer and the provincial regulatory agency in case of a spill, and for clean-up of spills.

For SPILLS: When handling or dealing with spills, use impact-resistant goggles with side shields, or face shield; wear body-covering clothes, including impervious chemical resistant gloves and boots; use a dust respirator if misting occurs. For small spills, recover free product. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for pesticide disposal. If drum contents are contaminated or decomposing, isolate unsealed drum in the open or in a well-ventilated area; flood with 10% sodium bicarbonate solution and large volumes of water if necessary. **DO NOT FLUSH INTO SURFACE STREAMS. INFORM THE PROVINCIAL REGULATORY AUTHORITY OR THE REGISTRANT.**

NOTICE TO USER: This pest control product is to be used only in accordance with the directions on the label. It is an offense under the Pest Control Products Act to use this product in a way that is inconsistent with the directions on the label.

1.20 KG BUSAN 94_{NA} LIQUID MICROBICIDE per L

DO NOT SHIP WITH FOOD, FEEDS, DRUGS OR CLOTHING

DIRECTIONS FOR USE

PAPER AND PAPER MILL SYSTEMS

Add BUSAN 94_{NA} Liquid Microbicide separately to the system. Do not mix it with other additives, so as to avoid decomposition of BUSAN 94_{NA} Liquid Microbicide due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal and yeast growth in pulp, paper and paperboard mills add BUSAN 94_{NA} Liquid Microbicide at levels of 0.075-0.210 Kg/tonne (dry) of pulp or paper produced. Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a point in the system that will ensure uniform distribution of BUSAN 94_{NA} Liquid Microbicide in the mass of fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, savealls and white-water tanks. Heavily fouled systems must first be boiled out, then treated with 0.075- 0.175 Kg of BUSAN 94_{NA} Liquid

Microbicide/tonne (dry) of paper or pulp as necessary for control. Moderately fouled systems should be treated continuously with 0.175-0.210 Kg of BUSAN 94_{NA} Liquid Microbicide/tonne (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to 0.075-0.175 Kg of BUSAN 94_{NA} Liquid Microbicide/tonne (dry) of paper on continuous or intermittent basis as needed for control. Dislodged slime may cause breaks in the paper and a cleanup of the paper machine may be advisable. Slightly fouled systems should be treated continuously with 0.075-0.175 Kg of BUSAN 94_{NA} Liquid Microbicide/tonne (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

INDUSTRIAL RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING:

This product is for recirculating water systems only.

NOTE: Add BUSAN 94_{NA} Liquid Microbicide separately to the system. Do not mix it with other additive, so as to avoid decomposition of BUSAN 94_{NA} Liquid Microbicide due to the high pH of many additive formulations. Add BUSAN 94_{NA} Liquid Microbicide to the basin (or any other point of uniform mixing). Addition should be made via a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the in-system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If “shock” treatment is used, the blowdown should be discontinued for 24-48 hours.

FOR CONTROL OF BACTERIA

Add 0.95 - 9.5 mL of BUSAN 94_{NA} Liquid Microbicide/1000L of water in the system depending on the severity of contamination.

Intermittent or Slug Method - Initial Dose: When the system is noticeably fouled, add 4.8 - 9.5 mL BUSAN 94_{NA} Liquid Microbicide/1000L of water in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add 2.4 – 9.5 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water in the system every 4 days, 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, add 4.8 - 9.5 mL of BUSAN 94_{NA} Liquid Microbicide /1,000 L of water to the system.

Subsequent Dose: Maintain this level by pumping a continuous feed of 0.95 - 4.8 mL of BUSAN 94_{NA} Liquid Microbicide /1,000 L of water in the system lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

FOR CONTROL OF FUNGI AND ALGAE

Add 29 - 95 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water in the system, depending on the severity of contamination.

Intermittent or Slug Method – Initial Dose: When the system is noticeably fouled, add 48-95 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water in the system. Repeat until control is achieved.

Subsequent Dose: When algal control is evident, add 29-95 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water in the system daily, 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, add 48-95 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water to the system.

Subsequent Dose: Maintain this treatment level by pumping a continuous feed of 29-95 mL BUSAN 94_{NA} Liquid Microbicide /1000 L of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

METALWORKING CUTTING FLUIDS CONTAINING WATER

BUSAN 94_{NA} Liquid Microbicide is effective in metal working fluid concentrates which have been diluted in water at ratios of 1:100 to 1:4. For controlling (or inhibiting) growth of bacteria, fungi and yeast that may deteriorate metal working fluids containing water, add BUSAN 94_{NA} Liquid Microbicide to the fluid in the collection tank. Additions should be made with a metering pump.

Initial or Slug Dose: When the system is just noticeably fouled, add BUSAN 94_{NA} Liquid Microbicide /1000 L at a rate of 0.25 L (318 g) per 1000 L of metal working fluid in the system. Repeat until control is achieved.

Subsequent Dose: When microbial control is evident, add BUSAN 94_{NA} Liquid Microbicide at the rate of 0.1 to 0.2 L (127 to 254 grams) per 1000 L of metal working fluid per day, or as needed to maintain control. Additions of BUSAN 94_{NA} Liquid Microbicide can be made continuously or intermittently. Slug the system as required.

ENHANCED OIL RECOVERY SYSTEMS (Non-Marine Uses)

NOTE: Add BUSAN 94_{NA} Liquid Microbicide separately to the system. Do not mix with other additives, so as to avoid decomposition of BUSAN 94_{NA} Liquid Microbicide due to the high pH of many additive formulations. Addition of BUSAN 94_{NA} Liquid Microbicide may be made at the free-water knockouts, before or after the injection pumps and injection well headers.

For controlling slime-forming bacteria, sulfide-producing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, add 1-80 ppm BUSAN 94_{NA} Liquid Microbicide (0.38-24.23 L of BUSAN 94_{NA} Liquid Microbicide per 2400 barrels of water) depending on the severity of contamination. Additions should be made with a metering pump either continuously or intermittently.

CONTINUOUS FEED METHOD: When the system is noticeably fouled, add 10-80 ppm BUSAN 94_{NA} Liquid Microbicide (3.03-24.23 L of BUSAN 94_{NA} Liquid Microbicide per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 ppm BUSAN 94_{NA} Liquid Microbicide (0.38-4.54 L of BUSAN 94_{NA} Liquid Microbicide per 2400 barrels of water) continuously or as needed to maintain control.

INTERMITTENT OR SLUG METHOD: When the system is noticeably fouled or to maintain control of the system, add 10-80 ppm BUSAN 94_{NA} Liquid Microbicide (3.03-24.23 L of BUSAN 94_{NA} Liquid Microbicide per 2400 barrels of water) intermittently for 4-8 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination. **NOTE:**

For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 ppm BUSAN 94_{NA} Liquid Microbicide (4.54-24.23 L of BUSAN 94_{NA} Liquid Microbicide per 2400 barrels of water). Additions of BUSAN 94_{NA} Liquid Microbicide should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to prevent loss of viscosity