

# **BUSAN<sup>®</sup> 77**

**LIQUID MICROBICIDE**

**INDUSTRIAL**

**READ THE LABEL BEFORE USING**

**REGISTRATION NO. : 12004**  
**PEST CONTROL PRODUCTS ACT**

**GUARANTEE:**

Poly[oxyethylene(dimethyliminio)ethylene-(dimethyliminio)ethylene dichloride] ..... 60%



NET CONTENTS: 200 Litres

**ENVIRONMENTAL HAZARDS:** This product is toxic to fish. Keep out of lakes, streams or ponds. Do not contaminate water, food, or feed by storage or disposal.

**NOTICE TO USER:** This pest control product is to be used only in accordance with the directions on the label. It is an offence under the *Pest Control Products Act* to use this product in a way that is inconsistent with the directions on the label. The user assumes the risk to persons or property that arises from any such use of this product.

**DISPOSAL:** Do not reuse this container for any purpose. For disposal, this container may be returned to the point of purchase (distributor/dealer). 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.

**Buckman Laboratories of Canada, Ltd.**  
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1-450-424-4404

**24-HOUR EMERGENCY TELEPHONE NUMBER:**  
**1-450-424-4404**

Busan 77 Liquid Microbicide is a broad spectrum microbicide. It is used to control the growth of algae, bacteria and fungi in: Swimming pools, spas, hot tubs and decorative fountains; industrial cooling systems, airwashers, and influent water systems; metalworking fluids; industrial starch solutions. Busan 77 Liquid Microbicide should never be added to potable water systems.

## **DIRECTIONS FOR USE**

**Swimming pools, spas, hot tubs and decorative fountains:** For maximum effectiveness, **pools containing a heavy growth of algae** should be cleaned prior to starting the use of Busan 77 Liquid Microbicide. Pools having just visible algae growth (greenish cast to the water or black or green spots on the walls and bottoms) should be treated with 75 to 125 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (7.5 - 12.5 ppm). Then about 24 hours later, the algae debris should be removed by standard cleaning procedures, including brushing loose algae spots, vacuuming the pool, and backwashing the filter. **For treatment of a freshly cleaned and filled pool**, add initially 50 to 75 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (5 - 7.5 ppm). To maintain pools free of visible algae growth, they should be treated with 15 to 30 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (1.5 - 3 ppm) every 5 - 7 days after the initial treatment. Uniform distribution of Busan 77 Liquid Microbicide throughout the water in the pool is necessary for maximum effectiveness of the product.

Busan 77 Liquid Microbicide is compatible with those chemicals normally used to treat pools and is effective at both acid and alkaline pH. Busan 77 Liquid Microbicide can be used in pools treated with chlorine chemicals and may reduce the amount of those chemicals normally required. However, do not mix Busan 77 Liquid Microbicide with concentrated dry or liquid chlorine products.

### **Industrial cooling systems, airwashers, and influent water systems:**

**Cooling Water Systems:** Prior to treatment with Busan 77 Liquid Microbicide, it is recommended that the system be thoroughly cleaned to remove all old algal growths, microbiological slime, and other deposits. The system should then be drained, flushed and charged with fresh water, with Busan 77 Liquid Microbicide treatment following suit. To treat recirculating systems, an initial slug addition equivalent to 70 to 200 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (7 to 20 ppm) should be used. Repeat initial dosage until control is evident. Subsequent slug additions supplying 20 to 200 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (2 to 20 ppm) should be made every 2 to 5 days or as needed. The required frequency of addition will depend upon the relative amount of bleedoff and the severity of the microbiological problem. Slug additions should be made in the sump of cooling towers.

**Air Wash Systems:** Before treatment with Busan 77 Liquid Microbicide, the system should be thoroughly cleaned to remove bacterial slime and other deposits. It should then be refilled and treated with a slug addition of 300 to 500 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (30 to 50 ppm). Subsequent additions of 200 to 500 ml of Busan 77 Liquid Microbicide per 10,000 liters of water (20 to 50 ppm) should be employed every 1 to 5 days. Addition requirements will vary depending on the severity of the microbiological problem.

Air Wash systems treated with Busan 77 Liquid Microbicide should be equipped with mist eliminators.

**Influent Water Systems:** Busan 77 Liquid Microbicide should be metered continuously or intermittently at a rate equivalent to 10 to 100 ml per 10,000 liters of water (1 to 10 ppm) based on influent water volume. Busan 77 Liquid Microbicide should never be added to potable water systems.

**Metalworking fluids:** Busan 77 Liquid Microbicide should be formulated into concentrated synthetic fluids in an amount that will provide 100 to 1000 ppm in the dilute fluid. Typical use concentrations of Busan 77 Liquid Microbicide are in the range of 300 to 500 ppm. Busan 77 Liquid Microbicide can also be utilized tankside in dosages of 100 to 1000 ppm. Frequency of addition will vary from case to case depending upon operating conditions. Because Busan 77 Liquid Microbicide is cationic, its compatibility with fluids should be determined prior to use. Busan 77 Liquid Microbicide should not be used in soluble oils.

**Starch solutions:** For preservation of paper and paperboard mill starch solutions, addition of Busan 77 Liquid Microbicide should range between 25 to 150 ppm based on the total starch solution volume prior to final dilution stage. It should be added to the starch solution storage tank after cooking and initial dilution. For preservation of starch adhesive solutions in paper and paperboard converting plants, addition of Busan 77 Liquid Microbicide should range between 60 to 75 ppm and should be added to each batch after cooking as the cooling water is being added. For weekend preservation, addition of Busan 77 Liquid Microbicide should range between 250 to 300 ppm and be added to the starch adhesive storage with good agitation to ensure uniform distribution.

## **PRECAUTIONS**

### **DANGER KEEP OUT OF REACH OF CHILDREN**

Harmful if swallowed. Avoid contact with skin, eyes, clothing and contamination of food. Wear chemical safety goggles, rubber gloves and body-protective clothing.

#### **FIRST AID:**

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

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.

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 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.

**TOXICOLOGICAL INFORMATION:** Treat symptomatically.

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