

PM 32

1448-345

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# BUSAN 6040

BUSAN is a registered trademark.

**BEST AVAILABLE COPY**

### ACTIVE INGREDIENTS:

Sodium Bromide ..... 40.0 %

INERT INGREDIENTS: ..... 60.0 %

## KEEP OUT OF REACH OF CHILDREN WARNING

### PRECAUTIONARY STATEMENTS HAZARDS TO HUMANS AND DOMESTIC ANIMALS

**WARNING:** Irritation may develop from eye and skin exposure. Avoid contact with eyes. Wear gloves and safety goggles. Wash contaminated clothing before reuse.

**FIRST AID:** In case of eye contact, flush eyes with cold water for at least 15 minutes. If irritation persists, seek medical attention immediately. Prolonged skin contact can produce skin irritation. In case of skin contact, wash with cold water for 15 minutes.

**ENVIRONMENTAL HAZARDS:** Do not discharge into lakes, streams, ponds or public waters unless in accordance with an NPDES permit. For guidance, contact your regional office of the EPA.

**PHYSICAL & CHEMICAL HAZARDS:** Busan 6040 is not flammable. However, in fires fueled by other materials, hydrogen bromide or bromine may be released. In case of fire, wear self-contained breathing apparatus.

### STORAGE AND DISPOSAL

**STORAGE:** Keep product in tightly closed original container when not in use. Store in a dry, well-ventilated area. Product should be stored at 0 degrees F or above.

**DISPOSAL:** Wastes resulting from the use of this product may be disposed of on site or at an approved waste disposal facility. Triple rinse the container (or equivalent), then offer for recycling or reconditioning, or puncture and dispose of in a sanitary landfill, or incinerate. Burn only if allowed by state and local authorities. If burned, stay out of smoke.

### DIRECTIONS FOR USE

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

Busan 6040 is used as a disinfectant, fungicide, algicide, bactericide and almicide in influent, wastewater and process water systems. It is applied in conjunction with an oxidant such as sodium hypochlorite (12.5%) or chlorine gas (99.9%) to produce hypobromous acid, which is more effective for microorganism control at an elevated pH (greater than 8). Busan 6040 may be added to the system inlet water or metered into existing NaOCl piping to form a solution of sodium hypobromite. Consult your leader manufacturer or Buckman representative for appropriate materials of construction, proper procedure and correct use of the leader equipment for the application of Busan 6040.

**WASTEWATER TREATMENT SYSTEMS:** When used as directed, Busan 6040 effectively controls algae, bacteria and fungal slimes and disinfects secondary and tertiary wastewater systems and effluents. The quantity of Busan 6040 required varies with the degree of fouling. Add sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve residual bromine levels of 0.3 ppm to 1 ppm when measured approximately 5 minutes after treatment (0.5 to 2.0 sodium bromide/oxidant mole ratio). This addition can be made at various points in the system including a contact tank preceding the effluent discharge on a secondary system or at the influent of the final clarifier.

**RECIRCULATING COOLING WATER SYSTEMS:** When used as directed, Busan 6040 effectively controls fungi, algae, bacteria and slime in commercial and industrial cooling towers, air washers, heat exchangers, industrial water scrubbing systems, industrial process water and influent water systems. The quantity of Busan 6040 required varies with the degree of fouling. Apply sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve residual bromine levels 0.5 to 5 ppm when measured approximately 5 minutes after treatment. A 0.5 to 2 mole ratio of sodium bromide to oxidant is recommended.

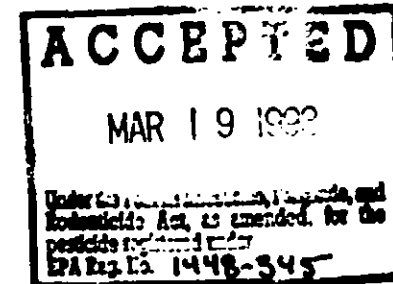
**INDUSTRIAL ONCE-THROUGH COOLING WATER SYSTEMS:** When used as directed, Busan 6040 effectively controls molluscs, bacteria, fungi, algae and slime in once-through and closed-cycle fresh and sea water cooling systems. Apply Busan

6040 and chlorine or sodium hypochlorite to the system inlet water or before any other contaminated area. Add sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve a residual bromine level of 0.5 to 5.0 ppm or as needed to maintain control. A 0.5 to 2 mole ratio of sodium bromide to oxidant is recommended.

**PULP AND PAPER MILLS:** When used in combination with an oxidant, Busan 6040 effectively controls algae, bacteria and fungal slime in pulp and paper mill fresh and sea water influent water systems, cooling water systems, wastewater treatment systems, nonpotable water systems and other process water. Add sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve a residual bromine level of 0.5 to 5.0 ppm or as needed to maintain control. A 0.5 to 2 mole ratio of sodium bromide to oxidant is recommended. Busan 6040 can be added wherever chlorination is applied.

**DOSAGE RATES: Initial Doses:** When the system is noticeably fouled, apply sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve a residual bromine level of 0.5 to 5 ppm or as needed to maintain control. A 0.5 to 2 mole ratio of sodium bromide to oxidant is recommended. Typically the recommended mole ratio may be achieved by using 1.5 to 6.0 lbs of chlorine gas (99.9%) or 1.3 to 5.2 gallons NaOCl (12.5%) for each gallon of Busan 6040. **Subsequent Dose:** When microbial control is evident, apply sufficient Busan 6040 and chlorine or sodium hypochlorite to achieve a residual bromine level of 0.5 to 2 ppm or as needed to maintain control. A 0.5 to 2 mole ratio of sodium bromide to oxidant is recommended. Typically, the recommended mole ratio may be achieved by using 1.5 to 6.0 lbs of chlorine gas (99.9%) or 1.3 to 5.2 gallons NaOCl (12.5%) for each gallon of Busan 6040. The product may be added to the system either continuously or intermittently, as needed. The frequency of feeding and duration of the treatment will depend upon the severity of the problem. It is recommended that the product be used in a manner such that the effluent discharges meet the NPDES guidelines.

**FRUIT AND VEGETABLE WASH:** When used in combination with an oxidant (Chlorine gas or NaOCl), Busan 6040 can be used for the wash and transport of fruits and vegetables. Busan 6040 and oxidant should be added at a rate to not to exceed a dosage of 55 ppm Busan 6040 (31.5 gallons Busan 6040 per one million gallons of water treated). The recommended activation mix of Busan 6040 and oxidant is a one to one molar ratio. Chlorine dose (99%), 3.3 pounds, 10% NaOCl dose (3.3 gallons) or 15% NaOCl dose (2.0 gallons) will activate one gallon of Busan 6040 (40% Sodium bromide solution). Busan 6040 may be continuously metered to Chlorinator eductor water or mixed with a NaOCl solution for activation. The use of this product under this application must be followed by a potable water rinse to remove, to the extent possible, the residue of the chemical. It is recommended that the product be used in a manner such that effluent discharges meet NPDES guidelines.



**HMIS/NPCA RATING**  
Health 1 Flammability 0 Reactivity 1

Product Weight: 11.9 lbs./gal. 1.43 kg/l  
NET CONTENTS MARKED ON CONTAINER

EPA Reg. No. 1448-345

Manufactured By EPA Est. No. 1448-TN-1  
**BUCKMAN LABORATORIES, INC.**  
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