## **LIQUIBROM 4000**

FOR USE AS A DISINFECTANT, SANITIZER, BACTERICIDE, SLIMICIDE AND ALGICIDE IN RECIRCULATING COOLING WATER SYSTEMS AND PULP AND PAPER PROCESSES

**ACTIVE INGREDIENT:** 

Sodium bromide
REGISTRATION NO. 21922 PEST CONTROL PRODUCTS ACT
COMMERCIAL
READ THE LABEL BEFORE USING
NET CONTENTS:

For medical emergencies, please call 1-877-800-5553. For technical questions or customer service, please call 1-800-600-4523.

Italmatch USA Corporation 5544 Oakdale Road SE Smyrna, GA 30032

## **DIRECTIONS FOR USE:**

Wear protective eyewear, chemical-resistant coveralls over long-sleeved shirt, long pants, and chemical-resistant gloves and footwear when handling the concentrate and contacting treated process fluids.

For use with closed loading and transfer systems only.

Toxic to aquatic organisms.

DO NOT discharge effluent containing this product or the biocide produced into sewer systems, lakes, streams, ponds, estuaries, oceans or other waters unless the effluent has been detoxified by suitable means.

**RECIRCULATING COOLING WATER SYSTEMS:** LIQUIBROM 4000 as drummed is not a microbiocide. LIQUIBROM 4000 is formulated to react with the hypochlorous acid (HOCl) from the addition of chlorine to form the biocidal active hypobromus acid. The reaction product has greater biocidal activity at significantly lower dosages than chlorine alone. For recirculating cooling water applications, feed Liquibrom 4000 either before or after the oxidant injection point into the water to be treated. Be sure rapid mixing of the treated water, Liquibrom 4000 and oxidant is achieved.

**DOSAGE:** The dosage rate is proportional to the feed rate of the chlorine source. For best results feed 0.90 kg LIQUIBROM 4000/1 kg chlorine gas or 0.87 kg LIQUIBROM 4000/10 kg 12% sodium hypochlorite.

**FOR PULP AND PAPER APPLICATIONS:** This product effectively controls algal, bacterial, and fungal slime in pulp and paper mill fresh and sea water influent water systems; cooling water systems, service water systems, white water systems, and other process water. Treat water at critical areas in the system process where mixing of the product with influent will be uniform. The frequency and duration of the treatment will depend upon the severity of the problem. Badly fouled process systems must be cleaned before initial treatment.

LIQUIBROM 4000 should be ratioed to chlorine dosage. Normal feed ratio is 3 to 20 grams LIQUIBROM 4000 for every 10 grams of chlorine or the equivalent of sodium hypochlorite. Add up to 0.70 kg of this product to 10,000 L, or 70 parts per million, of water in the system, to achieve a measured residual of up to 5 parts per million bromine as needed to maintain control of the system.

**PRECAUTIONS:** KEEP OUT OF REACH OF CHILDREN. May cause skin and eye irritation. May be harmful if swallowed. Do not get in eyes, on skin or on clothing. Wear goggles or safety glasses and rubber gloves when handling this product. Avoid breathing dust. Remove and wash contaminated clothing before reuse.

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

## **TOXICOLOGICAL INFORMATION:** Treat symptomatically.

## **DISPOSAL:**

- 1. Triple or pressure rinse the empty container. Add the rinsings to the treatment site.
- 2. Follow provincial instructions 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.

**ENVIRONMENTAL HAZARDS:** 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.

**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.