

## BromiCide® – The Number One Oxidizing Biocide for Industrial Water System

### Description and Use

BromiCide oxidizing biocide is a safer, more effective alternative to chlorine based oxidizing biocides and non-oxidizing biocides for microbiological control in industrial cooling waters. In water, BromiCide granules generate hypobromous acid, a highly effective oxidizing biocide, especially at high pH.

BromiCide is registered with the United States Environmental Protection Agency for use in once-through and recirculating cooling waters, heat exchange water systems, air washers equipped with mist eliminators, industrial water scrubbers, influent water systems, brewery pasteurizers, cooling ponds, wastewater treatment systems and pulp and paper mills.

### Benefits

- **Broad spectrum effectiveness.** BromiCide kills a broad variety of bacteria, algae and fungi and because it is an oxidizing biocide, microorganisms cannot develop resistance.
- **Effective in a wide range of water conditions.** BromiCide provides excellent performance in alkaline water situations as well as in waters containing nitrogen and organic materials.
- **Low dose performance and safer handling.** Since BromiCide is effective at low doses, maintaining high halogen levels is unnecessary. This means less product is needed, at less expense. Its solid form also makes BromiCide easier to handle than gas and liquid oxidizing biocides, reducing the risk chemical accidents and impact of environmental exposure.
- **Controlled dissolution.** BromiCide can be applied in easily controlled doses because of its unique solubility characteristics. Users have the freedom to decide the required dissolution rate and then select the BromiCide product to fit their needs.

**BromiCide granules** are the product of choice where rapid attainment of a halogen residual is required.

**BromiCide tablets** dissolve more slowly than granules and are the product of choice where a high degree of feed control is needed.

### Treatment and Dosing Requirements

BromiCide effectively controls bacterial, algal, and fungal slimes that can cause costly reductions in heat transfer efficiency.

BromiCide can either be dosed on a continuous or intermittent shock basis using erosion feeder dosing systems (brominators).

For noticeable fouling, add 0.2 - 0.5 ppm as Cl<sub>2</sub> for continuous dosing, or 1 - 2 ppm as Cl<sub>2</sub> for intermittent shock dosing.

Typically, in well managed systems, successful control has been demonstrated with dosages in the range of 0.1 - 0.3 ppm total halogen as Cl<sub>2</sub>.

### Typical Properties of BromiCide Products

Active Ingredient 1-bromo-3-chloro-5, 5- dimethylhydantoin (BCDMH).

Solubility @ 25° C: 0.2 % as BCDMH

Active Ingredient: 96%

Melting Point: 145 - 150 °C (decomposes)

**BromiCide granules** are white to off-white in color and have a faint halogen odor.

Bulk Density: 57 lb/ft<sup>3</sup> (915 g/l)

**BromiCide tablets** are white to off-white in color and have a faint halogen odor.

Tablet Dimensions: 1 3/16" X 3/4" (30 x 19 mm)

Tablet Weight: 20 grams

### Storage and Handling Precautions

BromiCide products should be kept dry in a tightly closed container.

Avoid contamination with moisture, chemicals or any other foreign materials due to risk of explosion, fire and release of hazardous gases.

Store in a cool, dry, well-ventilated area away from heat, sunlight, open flames and organic materials such as greases, oils and solvents.

BromiCide is corrosive in solution, and may be fatal if swallowed.

Inhalation of dust may cause irritation of the nose and throat, and irritation to skin. Always wear a dust mask approved by the appropriate national authority, impact-

resistant safety goggles or safety glasses, and a full-face plastic shield with forehead protection.

To avoid contact with skin, wear rubber or plastic gloves, long pants, and long shirt sleeves. Always tuck gloves under shirt sleeves and leave pant legs outside of boots. Wash contaminated clothing and equipment before reuse.

#### **Safety Precautions**

Do not leave wet BromiCide exposed to air inside a brominator

feed system. After adding BromiCide but before replacing the top closure, refill the tank with water. Failure to do so may allow for product decomposition leading to pressure build-up in the feeder. High pressures may lead to rupture of the feeder causing serious bodily injury or property damage by explosion, fire or release of hazardous gases.

Contact of BromiCide with organic materials such as alcohols, aldehydes, and ketones or strong reducing agents may cause a chemical reaction leading to a pressure build-up in the feeder. High pressure may lead to rupture of the feeder causing serious bodily injury or property damage.

Before handling BromiCide products, all persons must be thoroughly aware of the hazardous properties and have reviewed the Material Safety Data Sheet (MSDS). A MSDS may be obtained from BWA Water Additives. Always use biocides safely.

#### **Packaging Information**

**BromiCide granules and tablets** are available in 25 lb (11.4 kg) pails; 50 lb (23 kg) pails or 500 lb (225 kg) bulk bags.

#### **Patents**

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