

## **MBC 229**

### **CONTROLS SLIME IN RECIRCULATING COOLING WATER SYSTEMS**

#### **Initial Dosage**

190 ppm (.21 gallons or 1.7 lbs) of **MBC 229** per 1000 gallons water in system (shock treatment). Repeat until control is achieved.

#### **Maintenance Dosage**

1. Maintain a continuous feed (generally for open systems of 0.06 - 0.12 gallons (0.45 - 0.90 pounds) of **MBC 229** to maintain 60-120 ppm per 1000 gallons of water lost by blowdown.
2. Intermittent or slug feed. Apply 0.06 gallons or 0.45 pounds of **MBC 229** per 1000 gallons of water in the system every 3 or 4 days, or as needed to maintain control.
3. Begin treatment when the system is in jeopardy of becoming affected or after cleaning systems whose efficiency is already impaired.

#### **Features**

- Helps keep water systems clear and free of visible algal and fungal slimes.
- **MBC 229** can be used as a supplemental microbiocide with chlorine.
- When **MBC 229** is used as directed, it will aid in controlling and/or preventing the development of algal and fungal slime, which are often the cause of reduced capacity or equipment shutdown.
- **MBC 229** is compatible with virtually all corrosion inhibitors. **MBC 229** at use dilution is non-corrosive to inanimate hard surfaces.

**Packaging:** 55 gallon drums/350 gallon tote tanks



# MATERIAL SAFETY DATA SHEET

## I. GENERAL INFORMATION

### DISTRIBUTOR NAME AND ADDRESS

AQUATREAT, INC.  
P. O. BOX 789  
LOGANVILLE, GA 30249  
EMERGENCY TELEPHONE NO 800-424-9300  
TRADE NAME: QUATERNARY AMMONIUM COMPOUND AND ORGANIC TIN COMPOUND

PRODUCT NAME: MFC 229  
CHEMICAL FORMULA: PRINTED ON LABEL  
CHEMICAL FAMILY: NA-MIXTURE

## II. HAZARDOUS INGREDIENTS

PRINCIPAL HAZARDOUS INGREDIENTS	%	OSHA PEL OR NIOSH TLU	OSHA NO.
N-ALKYL (C12-18, 60%, C16 30%)	25-32	NO PEL OR TLU HAS BEEN ESTABLISHED	2001-54-5
C12-18 (C18 50%), DIMETHYL BENZYL AMMONIUM CHLORIDE			
BIS (TRI-N-BUTYL) TIN OXIDE	4.50%	NO PEL OR TLU HAS BEEN ESTABLISHED	56-35-9
ETHANOL	<10%	TLU: 1000 PPM PEL: 1380 MG/CUMETER	64-17-5

## III. PHYSICAL DATA

BOILING POINT (F)	212(F)	SPECIFIC GRAVITY (20/4)	0.92
VAPOR PRESSURE	NE	PERCENT VOLATILE BY WEIGHT (%)	NA
VAPOR DENSITY	NE	MELTING OR FREEZING POINT (F)	NA
SOLUBILITY IN WATER	COMPLETE	APPROXIMATELY S. B	
APPEARANCE AND ODOR	COLORLESS LIQUID; SLIGHT AROMATIC ODOR		

## IV. FIRE AND EXPLOSION DATA

FLASH POINT (METHOD USED) 145(F/100) FLAMMABLE LIMITS IN AIR: L. 0.8% U. 8%  
 AUTO IGNITION TEMPERATURE NE EXTINGUISHING MEDIA AS USED ON SURROUNDING FIRE  
 SPECIAL FIRE-FIGHTING PROCEDURES: FULL PROTECTIVE EQUIPMENT INCLUDING SELF-CONTAINED BREATHING APPARATUS SHOULD BE USED WHEN MFC 229 IS EXPOSED TO FIRE.

UNUSUAL FIRE AND EXPLOSION HAZARDS: WATER MAY BE USED TO COOL FIRE EXPOSED CONTAINERS. AVOID BREATHING FUMES FROM FIRE EXPOSED MATERIAL. PREVENT WATER WAY CONTAMINATION.

## V. PHYSICAL HAZARDS

STABILITY: STABLE CONDITIONS TO AVOID: OPEN FLAME  
 MATERIAL TO AVOID: OXIDIZING AND ACIDS  
 PAC. PREPAREDATION: WILL NOT OCCUR CONDITIONS TO AVOID: NONE  
 HAZARDOUS DECOMPOSITION PRODUCTS: CARBON DIOXIDE, CARBON MONOXIDE, TIN OXIDES

## VI. HEALTH HAZARDS

ACUTE IRRITANT CHRONIC NONE  
 SIGNS AND SYMPTOMS OF EXPOSURE CONTACT WITH MFC 229 WILL PRODUCE LOCAL SKIN IRRITATION AND SEVERE EYE IRRITATION WITH POSSIBLE INJURY.  
 MEDICAL CONDITIONS GENERALLY AGGRAVATED BY EXPOSURE: PERSONS WITH PRE-EXISTING SKIN, EYE OR RESPIRATORY DIFFICULTIES MAY BE AGGRAVATED BY EXPOSURES TO MFC 229.  
 CHEMICAL LISTED AS CARCINOGEN OR POTENTIAL CARCINOGEN I.R.C.C. NO NATIONAL TOXICOLOGY PROGRAM N

## VII. EMERGENCY AND FIRST AID PROCEDURES

TREAT SYMPTOMATICALLY AS OUTLINED BELOW:  
 INHALATION: MOVE SUBJECT TO FRESH AIR. IF BREATHING DIFFICULTY OCCURS, CONTACT A PHYSICIAN.  
 SKIN: WASH SKIN THOROUGHLY WITH SOAP AND WATER. REMOVE CONTAMINATED CLOTHING. SEEK MEDICAL ATTENTION IF IRRITATION OCCURS.