



## MATERIAL SAFETY DATA SHEET

### LIQUIBROM 4000

#### 1 CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

**PRODUCT NAME** LIQUIBROM 4000  
**CHEMICAL NAME** Sodium bromide solution  
**PRODUCT NO.** BIWT23003  
**SUPPLIER** BWA Water Additives US LLC  
1979 Lakeside Parkway  
Suite 925, Tucker, GA30084.  
TEL (800) 600-4523  
CUSTOMER SERVICE  
**EMERGENCY TELEPHONE** Chemtrec Phone: 1-800-424-9300

#### 2 HAZARDS IDENTIFICATION

##### POTENTIAL HEALTH EFFECTS

##### INHALATION

May cause irritation to the respiratory system.

##### INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

##### SKIN CONTACT

Non Irritant Not a skin sensitizer.

##### EYE CONTACT

Irritating to eyes.

##### HEALTH WARNINGS

Irritating to eyes.

##### ROUTE OF ENTRY

Skin and/or eye contact. Ingestion. Inhalation.

#### 3 COMPOSITION/INFORMATION ON INGREDIENTS

Name	EC No.	CAS-No.	Weight
SODIUM BROMIDE	231-599-9	764-71-56	30-60%

**EC No.** 231-599-9

**CAS-No.** 7647-15-6

##### COMPOSITION COMMENTS

Aqueous solution of sodium bromide

#### 4 FIRST-AID MEASURES

##### INHALATION

Provide fresh air, warmth and rest, preferably in a comfortable upright sitting position. Get medical attention if any discomfort continues.

##### INGESTION

NEVER MAKE AN UNCONSCIOUS PERSON VOMIT OR DRINK FLUIDS! Do not induce vomiting. If vomiting occurs, the head should be kept low so that stomach vomit doesn't enter the lungs. Rinse mouth thoroughly. Get medical attention.

##### SKIN CONTACT

Immediately remove contaminated clothing. Rinse immediately with plenty of water. Continue to rinse for at least 15 minutes. Get medical attention if irritation persists after washing.

##### EYE CONTACT

Immediately flush with plenty of water for up to 15 minutes. Remove any contact lenses and open eyes wide apart. Contact physician if irritation persists.

# LIQUIBROM 4000

## 5 FIRE-FIGHTING MEASURES

### EXTINGUISHING MEDIA

Use: Water spray, fog or mist. Carbon dioxide (CO<sub>2</sub>).

### SPECIAL FIRE FIGHTING PROCEDURES

Move container from fire area if it can be done without risk. Cool containers exposed to flames with water until well after the fire is out. Keep run-off water out of sewers and water sources. Dike for water control.

### UNUSUAL FIRE & EXPLOSION HAZARDS

No unusual fire or explosion hazards noted. This material will not burn until the water has evaporated. Residue can burn.

### SPECIFIC HAZARDS

Fire or high temperatures create: Toxic gases/vapors/fumes of Bromine. Hydrogen bromide (HBr).

### PROTECTIVE MEASURES IN FIRE

Leave danger zone immediately. Self contained breathing apparatus and full protective clothing must be worn in case of fire.

### FLASH POINT (°C)

## 6 ACCIDENTAL RELEASE MEASURES

### PERSONAL PRECAUTIONS

Wear protective clothing as described in Section 8 of this safety data sheet.

### ENVIRONMENTAL PRECAUTIONS

Avoid release to the environment.

### SPILL CLEAN UP METHODS

Collect for reclamation or absorb in vermiculite, dry sand or similar material. Collect in containers and seal securely. Should be prevented from entering drains.

## 7 HANDLING AND STORAGE

### HANDLING

Avoid spilling, skin and eye contact. Observe good industrial hygiene practices.

### STORAGE

Protect from light, including direct sunrays. Store in tightly closed original container in a cool, dry well-ventilated place. Store separated from: Acids. Reducing Agents.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

### PROCESS CONDITIONS

Provide eyewash station.

### PROTECTIVE EQUIPMENT



### ENGINEERING MEASURES

Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors.

### RESPIRATORY EQUIPMENT

No specific recommendation made, but respiratory protection may still be required under exceptional circumstances when excessive air contamination exists. A respiratory protection programme that meets OSHA 1910.134 and ANZI Z88.2 requirements must be followed whenever work place conditions warrant a respirator's use.

### HAND PROTECTION

Selection of a suitable glove depends on work conditions and whether the product is present on its own or in combination with other substances. Breakthrough time is dependent on the characteristics of the brand of glove used, consult your supplier. The applicable European standard can be found in EN 374. Gloves should be replaced immediately if signs of degradation are observed. It has been found that gloves made from rubber, neoprene or PVC provide short-term splash protection.

### EYE PROTECTION

Wear approved safety goggles. Use face shield in case of splash risk.

# LIQUIBROM 4000

## OTHER PROTECTION

Wear appropriate clothing to prevent repeated or prolonged skin contact.

## HYGIENE MEASURES

No specific hygiene procedures noted, but good personal hygiene practices are always advisable, especially when working with chemicals.

## SKIN PROTECTION

Wear apron or protective clothing in case of splashes.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

<b>APPEARANCE</b>	Liquid		
<b>COLOR</b>	Clear to Yellow		
<b>ODOR</b>	Odorless		
<b>SOLUBILITY</b>	Miscible with water.		
<b>BOILING POINT (°C)</b>	103 - 104	<b>RELATIVE DENSITY</b>	1.43 @ 21 °C
<b>pH-VALUE, CONC. SOLUTION</b>	6.5 - 7.5	<b>FLASH POINT (°C)</b>	not applicable

## 10 STABILITY AND REACTIVITY

### STABILITY

Stable under normal temperature conditions and recommended use.

### CONDITIONS TO AVOID

Avoid contact with strong reducing agents. Avoid contact with acids.

### MATERIALS TO AVOID

Strong acids.

### HAZARDOUS DECOMPOSITION PRODUCTS

Toxic gases/vapors/fumes of: Bromine. Hydrogen bromide (HBr).

## 11 TOXICOLOGICAL INFORMATION

<b>TOXIC DOSE 1 - LD 50</b>	>5000 mg/kg (oral rat)
<b>TOXIC DOSE 2 - LD 50</b>	>2000 mg/kg (skin rabbit)

### INHALATION

May cause irritation to the respiratory system.

### INGESTION

May cause discomfort if swallowed. May cause stomach pain or vomiting.

### SKIN CONTACT

Non Irritant Not a skin sensitizer.

### EYE CONTACT

Irritating to eyes.

### HEALTH WARNINGS

Irritating to eyes.

## 12 ECOLOGICAL INFORMATION

<b>LC 50, 96 hrs, Fish mg/l</b>	16479
<b>EC 50, 48 hrs, Daphnia, mg/l</b>	5800

## 13 DISPOSAL CONSIDERATIONS

### WASTE MANAGEMENT

When handling waste, consideration should be made to the safety precautions applying to handling of the product.

### DISPOSAL METHODS

Dispose of waste and residues in accordance with local authority requirements.

## 14 TRANSPORT INFORMATION

<b>TRANSPORT NOTES</b>	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
------------------------	---

<b>RAIL TRANSPORT NOTES</b>	Not Classified
-----------------------------	----------------

# LIQUIBROM 4000

<b>SEA TRANSPORT NOTES</b>	Not Classified	<b>U.S DOT HAZARD LABEL</b>	No DOT label requirement noted
<b>AIR TRANSPORT NOTES</b>	Not Classified		
<b>DOT HAZARD CLASS</b>	Not regulated.		
<b>MARINE POLLUTANT</b>	No.		

## 15 REGULATORY INFORMATION

### INVENTORIES

COMPONENT	CAN	US	EU	AUS	JAP	KOR	CHN	PHLP
SODIUM BROMIDE	DSL	Yes	EINECS	Yes	Yes	Yes	Yes	

COMPONENT	TSCA 12(b) Export Notification
SODIUM BROMIDE	No

### US FEDERAL REGULATIONS

COMPONENT	SARA 302-TPQ	CERCLA-RQ	SARA 313
SODIUM BROMIDE			No

COMPONENT	CAS	CA	FL	MA	MN	NJ	PA	RI
SODIUM BROMIDE	764-71-56	No	No	No	No	No	No	No

### REGULATORY STATUS (US)

SECTION 313: This product does not contain toxic chemical subject to the reporting requirements of Section 313 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. PROPOSITION 65: This product does not contain chemicals considered by the State of California's Safe Drinking Water and Toxic Enforcement Act of 1986 as causing cancer or reproductive toxicity and for which warnings are now required. TSCA: The ingredients of this product are on the TSCA Inventory. This Product is Hazardous under the OSHA Hazard Communication Standard.

### REGULATORY REFERENCES

29 CFR 1910.1010 Federal Regulations (OSHA Standard).

### ENVIRONMENTAL LISTING

EPA REGISTRATION NUMBER:5185-451

### CONTROLLED PRODUCT CLASSIFICATION

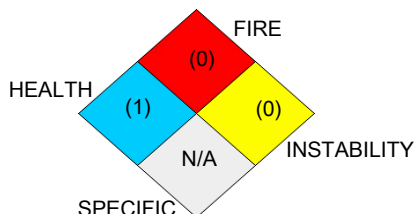
This Product has been classified according to the hazard criteria of the Controlled Products Regulations and the MSDS contains all required information. Canadian WHMIS Canada Pest Control Products Act Registration Number 21922.

## 16 OTHER INFORMATION

### HAZARDOUS MATERIAL INFORMATION SYSTEM (HMIS)

HEALTH	1
FLAMABILITY	0
REACTIVITY	0
PERSONAL PROTECTION	B

### NATIONAL FIRE PROTECTION ASSOCIATION (NFPA)



### REVISION COMMENTS

New company name & new format

## LIQUIBROM 4000

### ISSUED BY

G.B.

**REVISION DATE** 5th August 2008

**VERSION No.** 6

### SAFETY DATA SHEET STATUS

Approved.

**DATE** 5th August 2008

### DISCLAIMER

For safety reasons it is **IMPERATIVE** that customers:-

1. Ensure that all those within their control who use the products are supplied with all relevant information contained within the Safety Data Sheet and Technical Bulletin concerning the applications for which the product is designed and any instructions and warnings contained therein.

2. Consult BWA Water Additives before using or supplying the product for any other applications. The information contained herein is based on the present state of our knowledge and is intended to describe our products from the point of view of safety requirements. It should not therefore be construed as guaranteeing specific properties.