



# BIOBROM C-103L

Fast Kill Biocide

**BIOCIDES**

### GENERAL DESCRIPTIONS

**BIOBROM C-103L** is a 20% active end use formulation of DBNPA. It is used to control microbial, fungal and algal growth in industrial water systems such as cooling towers, evaporative condensers, pulp and papermill effluents, oil-recovery systems, metalcutting coolants, air-conditioning systems.

Oilfield applications include fracturing, drilling, completion, workover, packer fluids, waterflood injection, drilling muds, and pipeline hydrotesting.

### BENEFITS

- Cost-effective
- Quick Kill
- Broad spectrum
- Short half-life for low environmental impact
- Effective at broad pH and temperature range

PRODUCT SPECIFICATIONS	
Appearance	Light amber Liquid
Weight per Gallon	9.9-10.2
pH	6-8
Pour Point	≥ -25°F
Flash Point	318°F -329°F
Water Solubility	Soluble

### APPLICATIONS

Recommended dose rate varies depending on the application and severity of contamination. The normal concentration range to effectively decontaminate a system is from 10 ppm to 500 ppm.

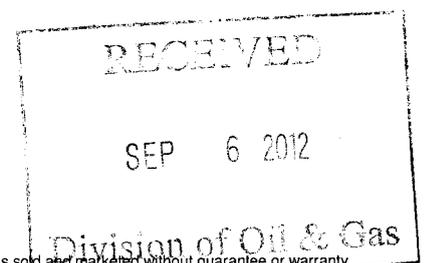
(Refer to EPA label for treatment rates for specific applications.)

### AVAILABILITY

**C-103L** is available in 5 gallon pails, 55 gallon drums, 275 gallon totes, or bulk.

WST, Inc.  
5520 Parkwood Circle  
Bessemer, AL 35022  
www.wstsp.com  
Phone: 866-284-9244  
Fax: 866-460-5535

This information is given and presented for your consideration and is believed to be accurate. This product is sold and marketed without guarantee or warranty either expressed or implied. It is recommended to research and test to determine effectiveness in each application use.





## MATERIAL SAFETY DATA SHEET

### I. IDENTIFICATION

Product: **BioBrom C-103L**  
General Description: Biocide  
Revision Date: 09/16/2011  
24 hour Transportation Emergency: 1-800-255-3924  
(ChemTel)

NFPA Rating	
Health	2
Fire	1
Reactivity	0
Personal Protection	D

**Rating Scale**  
4 = Extreme  
3 = High  
2 = Moderate  
1 = Slight  
0 = Insignificant

### II. HAZARD IDENTIFICATION

**Emergency overview:** *Colourless to amber liquid*  
*Corrosive*  
*Causes irreversible eye damage*  
*May be fatal if swallowed*  
*Harmful if inhaled or absorbed through skin*  
*Causes skin burns*

**Potential Health Effects:**  
- **Eye Contact** Severe irritant  
- **Skin contact** Moderate irritant  
May cause skin sensitization  
- **Inhalation** Irritant to upper respiratory tract.

**NFPA Ratings (Scale 0-4)** Health = 1, Fire = 1, Reactivity = 0  
**HMIS Ratings (Scale 0-4)** Health = 2, Fire = 1, Reactivity = 0.

### III. COMPOSITION/INFORMATION ON INGREDIENTS

Components CAS	Weight %	ACGIH-TLV Data	OSHA (PEL) Data
2,2-Dibromo-3-nitrilopropionamide 10222-01-2	20	Not determined	Not determined
Polyethylene glycol 25322-68-3	60	Not determined	Not determined
Water 7732-18-5	20	Not determined	Not determined

### IV. FIRST-AID MEASURES

**Eye contact** 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 center or doctor for treatment advise.

**Skin contact** Take off contaminated clothing.  
Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advise.

**Inhalation** 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 center or doctor for further treatment advise.

**Ingestion** Call poison control center, or doctor immediately for treatment advise. Have person sip a glass of water if able to swallow. Do not induce vomiting unless told to do so by the poison control center or doctor. Do not give anything by mouth to an unconscious person.

**Note to physician** Probable mucosal damage may contraindicate the use of gastric lavage.

**V. FIRE-FIGHTING MEASURES**

<b>Suitable extinguishing media</b>	Dry powder, carbon dioxide or water spray
<b>Fire fighting procedure</b>	Cool containers with water spray. Fire fighters should wear full protective clothing and self-contained breathing apparatus (SCBA) in positive pressure mode
<b>Unusual fire and explosion hazards</b>	When heated to decomposition, may release poisonous and corrosive fumes.

**VI. ACCIDENTAL RELEASE MEASURES**

<b>Personal precautions</b>	Wear self-contained breathing apparatus in positive pressure mode.
<b>Methods for cleaning up</b>	Avoid access to streams, lakes or ponds. Absorb on sand or vermiculite and place in closed container for disposal. Decontaminate spill area with 10% sodium bicarbonate solution. Absorb decontaminated solution with sand or vermiculite. Sweep up, place in a suitable container and hold for waste disposal. Ventilate area and wash spill site after material pickup is complete.

**VII. HANDLING AND STORAGE**

<b>Handling</b>	Keep containers tightly closed. Avoid bodily contact.
<b>Storage</b>	Store in a dry, cool, well-ventilated and shaded area, away from heat sources away from incompatible materials (see "materials to avoid").

**VIII. EXPOSURE CONTROLS/PERSONAL PROTECTION**

<b>Ventilation requirements</b>	Use local exhaust as necessary, especially under mist conditions.
<b>Personal protective equipment:</b>	
-Respiratory protection	Approved respirator
-Hand protection	Rubber gloves
-Eye protection	Chemical safety goggles or face shield with safety glasses.
-Skin and body protection	Body covering clothes and boots
<b>Hygiene measures</b>	Do not eat, smoke or drink where material is handled, processed or stored. Wash hands carefully before eating or smoking. Safety shower and eye bath should be provided.

**IX. PHYSICAL AND CHEMICAL PROPERTIES**

<b>Appearance</b>	Colourless to amber liquid
<b>Melting point/range</b>	-25°C to -20°C
<b>Boiling point/range</b>	Not applicable
<b>Flash point</b>	159-165°C
<b>Flammable/Explosion limits</b>	Not available
<b>Auto-ignition temperature</b>	Not available
<b>Vapour pressure</b>	2266.5 Pa (20°C)
<b>Vapor density</b>	Not applicable under standard conditions
<b>Evaporation rate (ether=1)</b>	<1
<b>Solubility:</b>	
- Solubility in water	Soluble
<b>Specific gravity</b>	1.16-1.21

**X. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable under normal conditions
<b>Materials to avoid</b>	Oxidizing agents, reducing agents and bases
<b>Conditions to avoid</b>	Heating above 105°C Exposure to light
<b>Hazardous decomposition products</b>	Br <sub>2</sub> , HBr, CNBr, NO <sub>x</sub>
<b>Hazardous polymerization</b>	Will not occur

**XI. TOXICOLOGICAL INFORMATION****Acute toxicity:**

- Rat oral LD50	1387 mg/kg
- Rabbit dermal LD50	>4000 mg/kg
- Rat inhalation LC50	1.05 mg/l/4 hour (nose only)
- Eye irritation (rabbit)	Severe irritant
- Dermal irritation (rabbit)	Moderate irritant

**Dermal sensitization**

Sensitizer  
Produces 100% sensitization rate (Magnusson & Kligman maximisation study)

**Chronic toxicity**

Not available

**Mutagenicity**

Not mutagenic by the Ames Test

**Carcinogenicity**

Not classified by IARC  
Not included in NTP 11th Report on Carcinogens

**XII. ECOLOGICAL INFORMATION**

**Note:** *The environmental toxicity data mentioned below are from studies conducted on active ingredient 2,2-Dibromo-3-nitrilopropionamide.*

**Aquatic toxicity :**

- 96 Hour-LC50, Fish	2.3 mg/l (Rainbow trout)
	3.4 mg/l (Sheepshead minnow)
	2.3 mg/l (Bluegill sunfish)
	0.72 mg/l (Mysid shrimp)
	0.37 mg/l (Eastern oyster)
- 48 Hour-EC50, Daphnia magna	0.86 mg/l

**Avian toxicity:**

- Oral LD50, Bobwhite quail	354 mg/kg
- Dietary LC50, Mallard duck	> 5620 ppm
- Dietary LC50, Bobwhite quail	> 5620 ppm

**Germany, water endangering classes (WGK)**

2 (Acetamide,2,2-dibromo-2-cyano)

**Germany, water endangering classes (WGK)**

3

**XIII. DISPOSAL CONSIDERATIONS**

**Waste disposal** Observe all federal, state and local environmental regulations when disposing of this material.

**XIV. TRANSPORT INFORMATION**

**BioBrom C-103L is not subject to classification as a Class 6 Toxic material.**

**The inhalation study cited in this MSDS is not relevant for transportation classification.**

**DOT**

Not regulated for non bulk shipments  
For bulk shipments regulated as:  
UN No. 3082  
Proper shipping name: Environmentally hazardous substance, liquid, n.o.s (2,2-dibromo-3-nitrilopropionamide)  
Class: 9 - Miscellaneous Hazardous Material  
Label: 9  
Marking: MARINE POLLUTANT  
Packing Group: III

**IMO**

Not regulated

**ICAO/IATA**

Not regulated

**XV. REGULATORY INFORMATION**

<b>USA</b>	This product is subject to registration under FIFRA
<b>Cercla/Sara - 302 ext. haz. Substances</b>	Reported in the EPA TSCA Inventory (Acetamide, 2,2-dibromo-2-cyano) This material contains no hazardous or extremely hazardous substance as defined by CERCLA or SARA Title III, and releases are therefore not reportable.
<b>- SARA 313</b>	On October 27, 1995, EPA published an administrative stay of the EPCRA section 313 reporting requirements for this chemical. Therefore, no Toxics Release Inventory reports are required for 2,2-dibromo-3-nitripropionamide until the stay is removed.
<b>- SARA (311, 312)</b>	This product is categorized as an immediate and delayed health hazard.
<b>- Waste Classifications</b>	This material does not meet RCRA's characteristic definition of ignitability, corrosivity, or reactivity, and is not listed in 40CFR 261.33. The toxicity characteristic, however has not been evaluated by the Toxicity Characteristic Leaching Procedure (TCLP).
<b>- Workplace Classification</b>	This product is considered hazardous under the OSHA Hazard Communication Standard (29CFR 1910.1200).
<b>Canada</b>	Ingredients are listed in DSL or NDSL
<b>-WHMIS hazard class</b>	Not applicable. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR.
<b>EU</b>	Reported in EINECS
<b>Japanese METI</b>	ENCS No.2-2795, 2-413
<b>Australia</b>	Listed in AICS
<b>China inventory</b>	Listed
<b>Korea</b>	Listed in the Korea Existing Chemicals Inventory (KECI)
<b>Philippines</b>	Listed in PICCS

**XVI. OTHER INFORMATION**

The information accumulated herein is believed to be accurate based on the information provided, although no guarantee or warranty, either expressed or implied is made as to the accuracy or completeness of this information, whether originating with this company or not. Recipients are advised to confirm in advance of need that the information is correct, applicable and suitable to their circumstances. The conditions or methods of handling, storage, use and disposal of the product and container are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage or use of this information or product. If the product is used as a component in another product, this information may not be applicable.

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