



UNITED STATES ENVIRONMENTAL PROTECTION AGENCY  
WASHINGTON, DC 20460

OFFICE OF  
PREVENTION, PESTICIDE  
AND TOXIC SUBSTANCES

November 13, 2009

George Katsigras  
ICL-IP America Inc.  
95 MacCorkle Ave., S.W.  
South Charleston, W. V. 25303

Subject: Biobrom C-103L  
EPA Registration Number 8622-20  
Application Date: October 19, 2009

Dear Mr. Katsigras:

This acknowledges receipt of your Notification submitted in accordance with the provisions of PR Notice 98-10 under the Federal Insecticide, Fungicide, and Rodenticide Act (FIFRA) section 3(c)9.

**Proposed Notification**

- Revisions to Storage and Disposal Statement in accordance with PR Notice 2007-4.

**General Comments**

Based on a review of the material submitted, the notification is acceptable. Please submit a finished label with the revised language to this Office for our files.

Should you have any questions or comments concerning this letter, please contact Tom Luminello at (703) 308-8075.

Sincerely,

A handwritten signature in black ink, appearing to read "Emily H. Mitchell", is written over the typed name.

Emily H. Mitchell  
Product Manager 32  
Regulatory Management Branch II  
Antimicrobials Division (7510P)



United States  
Environmental Protection Agency  
Washington, DC 20460

☐ Registration  
☐ Amendment  
☒ Other

OPP Identifier Number  
292317

### Application for Pesticide - Section I

1. Company/Product Number 8622-20	2. EPA Product Manager E. Mitchell	3. Proposed Classification <input checked="" type="checkbox"/> None <input type="checkbox"/> Restricted
4. Company/Product (Name) Biobrom C-103L	PM# 32	
5. Name and Address of Applicant (Include ZIP Code) ICL-IP America Inc. 95 MacCorkle Avenue S.W. South Charleston, WV 25311 <input type="checkbox"/> Check if this is a new address	6. Expedited Review. In accordance with FIFRA Section 3(c)(3) (b)(i), my product is similar or identical in composition and labeling to: EPA Reg. No. _____ Product Name _____	

### Section - II

<input type="checkbox"/> Amendment - Explain below.	<input type="checkbox"/> Final printed labels in response to Agency letter dated _____
<input type="checkbox"/> Resubmission in response to Agency letter dated _____	<input type="checkbox"/> "Me Too" Application.
<input checked="" type="checkbox"/> Notification - Explain below.	<input type="checkbox"/> Other - Explain below.

**Explanation:** Use additional page(s) if necessary. (For section I and Section II.)

Notification to change the Pesticide Container Disposal language per PR Notice 2007-4.  
See attached page for certification.  
Fee determination: Fee Category - Not Applicable  
george.katsigras@icl-ip.com

### Section - III

1. Material This Product Will Be Packaged In:				2. Type of Container	
Child-Resistant Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Unit Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	Water Soluble Packaging <input type="checkbox"/> Yes <input type="checkbox"/> No	<input type="checkbox"/> Metal <input type="checkbox"/> Plastic <input type="checkbox"/> Glass <input type="checkbox"/> Paper <input type="checkbox"/> Other (Specify) _____		
* Certification must be submitted		If "Yes" Unit Packaging wgt.	No. per container	If "Yes" Package wgt.	No. per container
3. Location of Net Contents Information <input type="checkbox"/> Label <input type="checkbox"/> Container		4. Size(s) Retail Container		5. Location of Label Directions <input type="checkbox"/>	
6. Manner in Which Label is Affixed to Product <input type="checkbox"/> Lithograph <input type="checkbox"/> Paper glued <input type="checkbox"/> Stenciled				<input type="checkbox"/> Other _____	

### Section - IV

1. Contact Point (Complete items directly below for identification of individual to be contacted, if necessary, to process this application.)				
Name George Katsigras		Title Regulatory Affairs Specialist		
		Telephone No. (Include Area Code) 304.720.3924		
<b>Certification</b> I certify that the statements I have made on this form and all attachments thereto are true, accurate and complete. I acknowledge that any knowingly false or misleading statement may be punishable by fine or imprisonment or both under applicable law.			6. Date Application Received  (Stamped)	
2. Signature 		3. Title Regulatory Affairs Specialist		
4. Typed Name George Katsigras		5. Date 19-Oct-2009		



ICL-IP AMERICA INC.

95 MacCorkle Avenue SW, South Charleston, WV 25303, USA

Tel: (304) 720-3950, Fax: (304) 746-3101, www.icl-industrial.com, info@icl-ip.com

October 19, 2009

## Section II Explanation (Continued)

### Certification Statement

"Notification of label change per PR Notice 2007-4. This notification is consistent with the guidance in PR Notice 2007-4 and the requirements of the EPA's regulations at 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156. No other changes have been made to the labeling or the Confidential Statement of Formula for this product. I understand that it is a violation of 18 U.S.C. Sec. 1001 to willfully make any false statement to the EPA. I further understand that if the amended label is not consistent with the requirements of 40 CFR §§ 156.10, 156.140, 156.144, 156.146, and 156.156, this product may be in violation of FIFRA and I may be subject to enforcement action and penalties under sections 12 and 14 of FIFRA."

George Katsigras  
Regulatory Affairs Specialist  
ICL-IP AMERICA INC.



ICL-IP AMERICA INC.

95 MacCorkle Avenue SW, South Charleston, WV 25303, USA  
Tel: (304) 720-3950, Fax: (304) 746-3101, [www.icl-industrial.com](http://www.icl-industrial.com), [info@ameribrom.icl-ip.com](mailto:info@ameribrom.icl-ip.com)

**October 19, 2009**

Attention: Mr. Tom Luminello / PM 32  
Document Processing Desk (NOTIF)  
Office of Pesticide Programs (7504P)  
U.S. Environmental Protection Agency  
Rm S-4900, One Potamac Yard  
2777 South Crystal Drive  
Arlington, VA 22202-4501

**SUBJECT: Notification per PR Notice 2007-4**  
**Biobrom C-103L, EPA Reg. No. 8622-20**

Dear Sir/Madam:

Please process the enclosed notification for the above referenced product.

The purpose of this notification is to:

Add language required by the Pesticide Container Rule under Storage and Disposal per PR Notice 2007-4.

Enclosed are:

- Application form (EPA Form 8570-1)
- Annotated Label
- Notification Certification Statement

If you have any questions or need additional information, please feel free to contact me by phone at (304) 720-3924 or via email [george.katsigras@icl-ip.com](mailto:george.katsigras@icl-ip.com).

Sincerely yours,

George Katsigras  
Regulatory Affairs Specialist



{All text in brackets [xxx] is optional and may or may not be intended on a final label.}  
 {All text in braces {xxx} is administrative and will not appear on a final label.}

# BIOBROM® C-103L

DBNPA

A MICROBIOCIDAL BACTERICIDE, FUNGICIDE, ALGAECIDE AND SLIMICIDE, USED IN TREATING RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS, PAPER MILLS, BREWERY PASTEURIZER WATER, METALWORKING CUTTING FLUIDS, NON-POTABLE REVERSE OSMOSIS SYSTEMS, ENHANCED OIL RECOVERY SYSTEMS, AIR-WASHER SYSTEMS, INDUSTRIAL PRESERVATION APPLICATIONS AND PUBLICLY-OWNED TREATMENT WORKS.

**ACTIVE INGREDIENT:** 2,2-Dibromo-3-nitrilopropionamide..... 20%  
**INERT INGREDIENTS:** ..... 80%  
**TOTAL:** ..... 100%

10 pounds BIOBROM® C-103L liquid per gallon.

**KEEP OUT OF REACH OF CHILDREN**  
**DANGER**

FIRST AID	
If in eyes	<ul style="list-style-type: none"> <li>• Hold eye open and rinse slowly and gently with water for 15-20 minutes.</li> <li>• Remove contact lenses, if present, after the first 5 minutes, then continue rinsing eye.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If inhaled	<ul style="list-style-type: none"> <li>• Move person to fresh air.</li> <li>• If person is not breathing, call 911 or an ambulance, then give artificial respiration, preferably by mouth-to-mouth, if possible.</li> <li>• Call a poison control center or doctor for further treatment advice.</li> </ul>
If on skin or clothing	<ul style="list-style-type: none"> <li>• Take off contaminated clothing.</li> <li>• Rinse skin immediately with plenty of water for 15-20 minutes.</li> <li>• Call a poison control center or doctor for treatment advice.</li> </ul>
If swallowed	<ul style="list-style-type: none"> <li>• Call poison control center, or doctor immediately for treatment advice.</li> <li>• Have person sip a glass of water if able to swallow.</li> <li>• Do not induce vomiting unless told to do so by the poison control center or doctor.</li> <li>• Do not give anything by mouth to an unconscious person.</li> </ul>
Have the product container or label with you when calling a poison control center or doctor, or going for treatment. <b>YOU MAY ALSO CONTACT 1-304-746-3000 FOR EMERGENCY MEDICAL TREATMENT INFORMATION.</b>	
<b>NOTE TO PHYSICIAN</b> Probable mucosal damage may contraindicate the use of gastric lavage.	

See [back] [side] panels for additional precautionary statements and first aid.

**PRECAUTIONARY STATEMENTS****HAZARDS TO HUMANS AND DOMESTIC ANIMALS****CORROSIVE****CAUSES IRREVERSIBLE EYE DAMAGE****MAY BE FATAL IF SWALLOWED****HARMFUL IF INHALED OR ABSORBED THROUGH SKIN****CAUSES SKIN BURNS****PROLONGED OR FREQUENTLY REPEATED SKIN CONTACT MAY CAUSE ALLERGIC REACTIONS IN SOME INDIVIDUALS****KEEP CONTAINER TIGHTLY CLOSED WHEN NOT IN USE****TO MAINTAIN PRODUCT QUALITY, STORE IN THE DARK AT****TEMPERATURES BELOW 104°F (40°C).****DO NOT SHIP WITH FOOD, FEEDS, DRUGS, OR CLOTHING****DO NOT SMOKE, DRINK, OR EAT WHEN HANDLING****WASH THOROUGHLY AFTER HANDLING**

Do not get in eyes, on skin, or on clothing. In case of contact immediately rinse skin with plenty of water. Get medical attention if irritation persists. Use with adequate ventilation. Wash thoroughly with soap and water after handling and before eating drinking using tobacco, or using the toilet. Remove contaminated clothing and wash clothing before reuse.

**PERSONAL PROTECTION EQUIPMENT (PPE):**

-Applicators and other handlers must wear:

-Coveralls worn over long sleeved shirt and long pants.

-Chemical resistant footwear plus socks.

-Goggles or face shield.

-Chemical-resistant gloves(such as barrier laminate, butyl rubber, neoprene rubber, nitrile rubber, polyvinyl chloride (PVC and viton).

-For mixing/loading: Wear a chemical resistant apron.

-For cleaning equipment: Wear a chemical resistant apron.

Follow manufacturer's instructions for cleaning/maintaining PPE. If no such instructions exist for washables, use detergent and hot water. Keep and wash PPE separately from other laundry.

**User Safety Recommendations**

Users should wash hands before drinking, chewing gum, using tobacco, or using the toilet.

Users should remove clothing immediately if pesticide gets inside. Then wash thoroughly and put on clean clothing.

Users should remove personal protective equipment immediately after handling this product. Wash outside of gloves before removing. As soon as possible wash thoroughly.

**General Precautions and Restrictions**

Do not apply this product in a way that will contact workers or other persons.

**ENVIRONMENTAL HAZARDS**

This product is toxic to fish and aquatic organisms. Do not contaminate water by cleaning of equipment or disposal of waste. Do not discharge effluent containing this product into lakes, streams, ponds, estuaries, oceans, or other waters unless in accordance with the requirements of a National Pollutant Discharge Elimination System (NPDES) permit and the permitting authority has been notified in writing prior to discharge. Do not discharge effluent containing this product to sewer systems without previously notifying the local sewage treatment plant authority. For guidance, contact your State Water Board or Regional Office of the EPA.

**CHEMICAL AND PHYSICAL HAZARDS**

Reaction with strong reducing agents may be explosive. Avoid misting.

**STORAGE AND DISPOSAL**

Do not contaminate water, food or feed by storage or disposal.

## STORAGE

Store in a dark, cool, dry, well-ventilated area, not above 104°F (40°C), in well-closed original containers, away from energy sources, combustible organic materials, oxidizers and moisture.

## DISPOSAL

Pesticide wastes are acutely hazardous. Improper disposal of excess pesticide, spray mixture or rinsate is a violation of Federal Law. If these wastes cannot be disposed of by use according to label instructions, contact your State Pesticide or Environmental Control Agency or the Hazardous Waste representative at the nearest EPA Regional Office for guidance.

## CONTAINER HANDLING

Non-refillable container. Do not reuse or refill this container. Offer for recycling, if available. Triple rinse container (or equivalent) promptly after emptying.

*{For containers of 5 gallons or less.}* [Triple rinse as follows: Empty the remaining contents into application equipment or mix tank and drain for 10 seconds after the flow begins to drip. Fill the container ¼ full with water and recap. Shake for 10 seconds. Pour rinsate into application equipment or mix tank or store rinsate for later use or disposal. Drain for 10 seconds after the flow begins to drip. Repeat this procedure two more times.]

*{For containers with capacities greater than 5 gallons.}* [Triple rinse as follows: Empty the remaining contents into application equipment or a mix tank. Fill the container ¼ full with water. Replace and tighten closures. Tip container on its side and roll it back and forth, ensuring at least one complete revolution, for 30 seconds. Stand the container on its end and tip it back and forth several times. Empty rinsate into application equipment or a mix tank or store rinsate for later use or disposal. Repeat this procedure two more times.]

CHANGE PER PF-NOTICE 2007-9

## SPILLS

When handling or dealing with spills, use impact-resistant goggles with side shields, or face shield; wear body-covering clothes, including impervious rubber gloves and boots; use a respirator if misting occurs. Cover wet spills with 10% sodium bicarbonate solution, water and then an inert absorbent before sweeping up and disposing as described for pesticide disposal. If drum contents are contaminated or decomposing, isolate unsealed drum in the open or in a well-ventilated area: flood with 10% sodium bicarbonate solution and large volumes of water if necessary.

## DIRECTIONS FOR USE

It is a violation of Federal Law to use this product in a manner inconsistent with its labeling. **Read entire label and use strictly in accordance with precautionary statements and directions.**

## DIRECTIONS FOR TREATING INDUSTRIAL RECIRCULATING COOLING WATER IN INDUSTRIAL COOLING SYSTEMS

**NOTE:** Add BIOBROM C-103L separately to the system. Do not mix it with other additives, so as to avoid decomposition of BIOBROM C-103L due to the high pH of many additive formulations.

Add BIOBROM C-103L to the basin (or any other point of uniform mixing). Addition should be made via a metering pump; it may be continuous or intermittent, depending on the severity of the contamination when treatment is begun, and the in-system retention time. Optimum performance with this product is achieved by continuous or intermittent treatment. If "shock" treatment is used, the blowdown should be discontinued for 24-48 hours.

### FOR CONTROL OF BACTERIA

Add 0.00095-0.0095 gallons of BIOBROM C-103L / 1000 gal. of water in the system depending on the severity of contamination.

### INTERMITTENT OR SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, add 0.0048-0.0095 gal. of BIOBROM C-103L / 1000 gal. of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 0.0024-0.0095 gal. of BIOBROM C-103L / 1000 gal. of water in the system every 4 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

### CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, add 0.0048-0.0095 gal. of BIOBROM C-103L / 1000 gal. of water in the system.

**Subsequent Dose:** Maintain this level by pumping a continuous feed of 0.00095-0.0048 gal. of BIOBROM C-103L / 1000 gal. of water in the system lost by blowdown. Badly fouled systems must be cleaned before treatment is begun.

## FOR CONTROL OF FUNGI AND ALGAE

Add 0.029-0.095 gallons of BIOBROM C-103L / 1000 gal. of water in the system, depending on the severity of contamination.

### INTERMITTENT OR SLUG METHOD

**Initial Dose:** When the system is noticeably fouled, add 0.048-0.095 gal. of BIOBROM C-103L / 1000 gal. of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 0.029-0.095 gal. of BIOBROM C-103L / 1000 gal. of water in the system daily, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

### CONTINUOUS FEED METHOD

**Initial Dose:** When the system is noticeably fouled, add 0.048-0.095 gal. of BIOBROM C-103L / 1000 gal. of water in the system.

**Subsequent Dose:** Maintain this treatment level by pumping a continuous feed of 0.029-0.095 gal. of BIOBROM C-103L / 1000 gal. of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.

## DIRECTIONS FOR TREATING PULP AND PAPER MILL SYSTEMS

**NOTE:** Add BIOBROM C-103L separately to the system. Do not mix it with other additives, so as to avoid decomposition of BIOBROM C-103L due to the high pH of many additive formulations. For the control of slime-forming bacterial, fungal, and yeast growth in pulp, paper and paperboard mills add BIOBROM C-103L at levels of 0.15-0.50 lb./ton (dry) of pulp or paper produced. Addition can be continuous or intermittent, depending upon the type of system and the severity of contamination. Addition is via a metering pump at a point in the system that will ensure uniform distribution of BIOBROM C-103L in the mass of fiber and water, such as the beaters, Jordan inlet or discharge, broke chests, furnish chests, save-alls and white-water tanks.

**Heavily fouled systems** must first be boiled out, then treated with 0.15-0.35 lb. of BIOBROM C-103L /ton (dry) of paper or pulp as necessary for control. **Moderately fouled systems** should be treated continuously with 0.35-0.50 lb. of BIOBROM C-103L /ton (dry) of paper or pulp until the slime accumulation is controlled. Subsequent rates can then be reduced to 0.15-0.35 lb. of BIOBROM C-103L /ton (dry) of paper on a continuous or intermittent basis as needed for control. Dislodged slime may cause breaks in the paper and a clean-up of the paper machine may be advisable.

**Slightly fouled systems** should be treated continuously with 0.15-0.35 lb. of BIOBROM C-103L /ton (dry) of paper or pulp, until the slime is controlled, then added on an intermittent basis to maintain control.

## DIRECTIONS FOR TREATING NON-POTABLE REVERSE OSMOSIS SYSTEMS

For controlling bacteria, fungi and algae slimes in non-potable Reverse Osmosis systems and peripheral equipment, add BIOBROM C-103L to the system inlet water or before any other contamination area ahead of the Reverse Osmosis unit. BIOBROM C-103L may be added with a metering pump on an intermittent or continuous basis depending on the severity of contamination and the guidelines specified by the membrane manufacturer for BIOBROM C-103L.

For continuous use, add BIOBROM C-103L at the rate of 0.01 to 1.0 lbs (1 to 120 ppm) per 1000 gals of feedwater. For cleaning off-line systems, add BIOBROM C-103L at 50 to 170 ppm per 1000 gallons of feedwater to the off-line cleaning feed tank and re-circulate for 30 minutes to 3 hours. Once off-line treatment is completed, rinsing with feedwater should continue until conductivity values in the permeate are at or below values before treatment with BIOBROM C-103L. Badly fouled systems must be cleaned before treatment is begun.

[Note:] For industrial systems that cannot tolerate BIOBROM C-103L residuals, a slug or intermittent feed process should be employed where the permeate and concentrate streams are directed to waste during the addition of BIOBROM C-103L and for 30 minutes to 1 hour following BIOBROM C-103L addition.

### FOR CONTROL OF BACTERIA

**Initial Dose:** When the system is noticeably fouled, add BIOBROM C-103L at the rate of 0.05 to 0.1 lb (6 to 12 ppm) per 1000 gals of feedwater. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.

**Subsequent Dose:** When microbial control is achieved, add BIOBROM C-103L at the rate of 0.025 to 0.1 lb (3 to 12 ppm) per 1000 gals of feedwater as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

### FOR CONTROL OF FUNGI AND ALGAE

**Initial Dose:** When the system is noticeably fouled, add BIOBROM C-103L at the rate of 0.5 to 1.0 lb (60 to 120 ppm) per 1000 gals of feedwater. Minimum treatment intervals should be 15 minutes. Repeat until control is achieved or as specified by guidelines recommended by the membrane manufacturer.



9  
10

**Subsequent Dose:** When microbial control is achieved, add BIOBROM C-103L at the rate of 0.3 to 1.0 lb (36 to 120 ppm) per 1000 gals of feedwater as needed to maintain control or as specified by guidelines recommended by the membrane manufacturer.

#### **DIRECTIONS FOR TREATING METALWORKING FLUIDS CONTAINING WATER**

BIOBROM C-103L is effective in metalworking fluid concentrates which have been diluted in water at ratios of 1:100 to 1:4. For controlling (or inhibiting) the growth of bacteria, fungi and yeasts that may deteriorate metalworking fluids containing water, add this product to the fluid in the collection tank. Additions should be made with a metering pump.

**Initial or Slug Dose:** When the system is noticeably fouled, add BIOBROM C-103L at the rate of 0.25 gal (2.65 lbs) per 1000 gals of metalworking fluid in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add BIOBROM C-103L at the rate of 0.1 to 0.2 gal (1.06 to 2.12 lbs) per 1000 gals of metalworking fluid per day, or as needed to maintain control. Additions of BIOBROM C-103L product can be made continuously or intermittently. Slug the system as required.

#### **DIRECTIONS FOR TREATING BREWERY PASTEURIZER WATER**

For controlling (or inhibiting) the growth of bacteria, fungi and yeasts in brewery pasteurizing water systems, add BIOBROM C-103L at a point in the system to insure uniform mixing.

**Initial or Slug Dose:** When the system is noticeably fouled, add BIOBROM C-103L at the rate of 0.25 gal (2.65 lbs) per 1000 gals of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add BIOBROM C-103L at the rate of 0.1 to 0.2 gal (1.06 to 2.12 lbs) per 1000 gals of water per day, or as needed to maintain control. Additions of BIOBROM C-103L product can be made continuously or intermittently. Slug the system as required. Badly fouled systems must be cleaned before treatment is begun.

#### **DIRECTIONS FOR TREATING ENHANCED OIL RECOVERY SYSTEMS**

**NOTE:** Add BIOBROM C-103L separately to the system. Do not mix it with other additives, so as to avoid decomposition of BIOBROM C-103L due to the high pH of many additive formulations. Addition of BIOBROM C-103L may be made at the free water knockouts, before or after the injection pumps and injection well headers. For controlling slime-forming bacteria, sulfide-producing bacteria, yeasts, and fungi in oil field water, polymer or micellar floods, water-disposal systems, or other oil field water systems, add 1-80 ppm BIOBROM C-103L (0.1- 6.4 gallons of BIOBROM C-103L per 2400 barrels of water) depending on the severity of contamination. Additions should be made with a metering pump either continuously or intermittently.

##### **CONTINUOUS FEED METHOD**

When the system is noticeably fouled, add 10-80 ppm BIOBROM C-103L (0.8-6.4 gal. of BIOBROM C-103L per 2400 barrels of water) continuously until the desired degree of control is achieved. Subsequently, treat with 1-15 ppm BIOBROM C-103L (0.1-1.2 gal. of BIOBROM C-103L per 2400 barrels of water) continuously or as needed to maintain control.

##### **INTERMITTENT OR SLUG METHOD**

When the system is noticeably fouled or to maintain control of the system, add 10-80 ppm BIOBROM C-103L (0.8-6.4 gal. of BIOBROM C-103L per 2400 barrels of water) intermittently for 4-8 hours per day and from 1-4 times per week, or as needed depending on the severity of contamination.

**NOTE:** For control of bacteria, yeast, and fungi in aqueous solutions of biopolymer used in flooding operations, add 15-80 ppm BIOBROM C-103L (1.2-6.4 gal. of BIOBROM C-103L per 2400 barrels of water). Additions of BIOBROM C-103L should be made with a metering pump immediately after preparation of the aqueous biopolymer solution to reduce loss of viscosity.

#### **DIRECTIONS FOR TREATING AIR-WASHER SYSTEMS**

Add 0.0015-0.095 gallons BIOBROM C-103L / 1000 gal of water in the system, depending on the severity of contamination, to control slime-forming bacteria and fungi in industrial air washing systems.

##### **Intermittent or Slug Method**

**Initial Dose:** When the system is noticeably fouled, add 0.003-0.095 gal BIOBROM C-103L / 1000 gal of water in the system. Repeat until control is achieved.

**Subsequent Dose:** When microbial control is evident, add 0.0015-0.047 gal BIOBROM C-103L / 1000 gal of water in the system every 2 days, or as needed to maintain control. Badly fouled systems must be cleaned before treatment is begun.

##### **CONTINUOUS FEED METHOD**

**Initial Dose:** When the system is noticeably fouled, add 0.003-0.095 gal BIOBROM C-103L / 1000 gal of water in the system.

10  
10

**Subsequent Dose:** Maintain this level by pumping a continuous feed of J15-0.047 gal BIOBROM C-103L / 1000 gal of water in the system per day. Badly fouled systems must be cleaned before treatment is begun.  
**NOTE:** For use only in industrial air-washer systems that maintain effective mist eliminating components.

#### **DIRECTIONS FOR INDUSTRIAL PRESERVATION APPLICATIONS**

BIOBROM C-103L may be used to reduce microbiological contamination in raw materials and/or products such as: aqueous paints and coatings, polymers, slurries, adhesives, latex and resin emulsions, sizing, caulk, process water, along with specialty industrial products including: inks, polishes, waxes, detergents, and cleansers.

##### **TO REDUCE MICROBIOLOGICAL CONTAMINATION**

Add BIOBROM C-103L to the material or product at a concentration of 25 to 2,000 ppm by weight. This concentration is equivalent to 2.8 to 224.0 fluid ounces BIOBROM C-103L per 1,000 gallons or 21.4 to 1,712.0 milliliters BIOBROM C-103L per 1,000 liters. The required concentration will depend on the material being treated and the level of contamination present.

#### **DIRECTIONS FOR TREATING PUBLICLY-OWNED TREATMENT WORKS TO CONTROL COLIFORM AND OTHER BACTERIA**

Add BIOBROM C-103L at a concentration of 1.0 to 10.0 ppm by weight of water being treated, depending on the severity and contamination in the system. Addition should be CONTINUOUS and should be made with a metering pump at a point in the system where mixing will be rapid and thorough. Add BIOBROM C-103L to the system in a location where contact time will be 30 minutes or greater before reaching the outfall.

##### **TO USE AS A CO-TREATMENT WITH CHLORINE**

Add 0.4 - 1.5 ppm BIOBROM C-103L by weight of water treated. Chlorination should result in a minimum detectable residual (i.e., greater than zero but less than the NPDES permit level). Addition should be CONTINUOUS and made at a point just after initial chlorine mixing. Rapid mixing is necessary for maximum effectiveness. BIOBROM C-103L should be added at a location where a contact time of 10 minutes or longer will be provided before reaching the outfall.

#### **DIRECTIONS FOR TREATING OILFIELD AND PETROCHEMICAL SYSTEMS**

BIOBROM C-103L may be used either in slug treatment or in continuous application. Dosages may vary from as much as 200 ppm of BIOBROM C-103L in slug application to 10 to 50 ppm of BIOBROM C-103L in continuous treatment (1/4 pint BIOBROM C-103L per 1,000 gallons of water equals approximately 30 ppm). A typical slug treatment is to add 1 pint of BIOBROM C-103L per 1,000 gallons at intervals as needed to prevent growth of microbial slime. Badly fouled systems may be slug treated to establish control, followed by continuous treatment to maintain control.

#### **WARRANTY**

Seller warrants that this product conforms to its chemical description and is reasonably fit for the purposes stated on the label when used in accordance with label directions under normal conditions of use, but neither this warranty nor any other warranty of MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE, express or implied, extends to the use of this product contrary to label instructions, or under abnormal conditions, or under conditions not reasonably foreseeable to Seller, and Buyer assumes the risk of any such use.

#### **MANUFACTURED FOR:**

ICL-IP America Inc.  
95 MacCorkle Ave SW  
South Charleston, WV 25303  
Phone: (304) 746-3950

EPA Reg. No. 8622-20

EPA Est. No. \_\_\_\_\_

NET CONTENTS: \_\_\_\_\_ GALS.(LBS.)