

STABROM® 909 Biocide

Material Safety Data Sheet

Revision Date: 14-Feb-2012
Supersedes 28-Apr-2011

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name	STABROM® 909 Biocide				
Chemical Name	Proprietary.				
Chemical Family	Stabilized bromine biocide, aqueous solution				
CAS-No	Mixture				
General function	Water treatment chemical				
Company	Albemarle Corporation 451 Florida Street Baton Rouge, LA 70801		<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">NFPA</td> <td style="text-align: center;">HMIS</td> </tr> </table>	NFPA	HMIS
NFPA	HMIS				
		Health	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">3</td> <td style="text-align: center;">3</td> </tr> </table>	3	3
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Emergency Telephone Numbers	+1-225-344-7147	Flammability	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table>	0	0
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For Non-Emergency	800-535-3030	Physical Hazards	<table border="1" style="width: 100%; border-collapse: collapse;"> <tr> <td style="text-align: center;">0</td> <td style="text-align: center;">0</td> </tr> </table>	0	0
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2. HAZARDS IDENTIFICATION

Emergency Overview

Corrosive - causes irreversible eye damage
Causes skin burns
Harmful if swallowed
Harmful in contact with skin

Can decompose exothermically at elevated temperatures (see Handling and Storage Section for details)

Potential Health Effects

Eyes	Possible risks of irreversible effects.
Skin	Causes burns. Harmful in contact with skin.
Inhalation	In the event of fire and/or explosion do not breathe fumes. Not expected to be acutely toxic.
Ingestion	Harmful if swallowed.

See Section 11 for additional Toxicological information.

Occupational Exposure Limit See Section 8

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS-No	Weight %
Halogenated Complex		18
Sodium hydroxide	1310-73-2	<10

4. FIRST AID MEASURES

Ad Lib	If medical advice is needed: Have product container or label at hand.
Eye contact	If in eyes, 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 advice.
Skin Contact	If on skin or clothing, take off contaminated clothing. Rinse skin immediately with plenty of water for 15-20 minutes. Call a poison control center or doctor for treatment advice.
Inhalation	Move to fresh air.
Ingestion	If swallowed, Call a physician or Poison Control Center immediately. Have person sip a glass of water if able to swallow. Do not induce vomiting without medical advice. Never give anything by mouth to an unconscious person.
Notes to Physician	Probable mucosal damage may contraindicate the use of gastric lavage.

5. FIRE-FIGHTING MEASURES

Combustion/explosion hazards	Not available
Suitable extinguishing media	Not required.
Hazardous Combustion Products	Bromine, Chlorine
Protective Equipment and Precautions for Firefighters	In the event of fire and/or explosion do not breathe fumes.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions	Ensure adequate ventilation.
Environmental precautions	Contain any spill with dikes or absorbents to prevent migration and entry into sewers or streams. Large spills should be collected mechanically (remove by pumping) for disposal. May require excavation of contaminated soil. Take up small spills by first diluting with water and then using a dehalogenating agent such as sodium thiosulfate solution.
Methods for Cleaning up	Soak up with inert absorbent material (e.g. sand, silica gel, universal binder, sawdust)

7. HANDLING AND STORAGE

Handling	Avoid contact with skin, eyes and clothing.
Storage	Avoid freezing, excessive heat or exposure to light, especially direct sunlight. If heating is necessary to prevent freezing, care must be taken to prevent overheating. Precautions should be taken to ensure that the average product temperature is maintained below 110°F. Temperature monitoring is recommended. At elevated temperatures, self-heating can lead to vigorous gas generation and over-pressurization of storage containers if appropriate controls are not in place. Avoid exposure of this product to incompatible materials/chemicals (see Stability and Reactivity section). Use of incompatible materials can promote the exothermic decomposition of the product. In extreme cases, this could result in vigorous gas formation and over-pressurization of the storage container. STORAGE CONTAINER: Vented and opaque containers: As the product ages, activity is gradually lost and pressure can build-up in the headspace (nitrogen); therefore, the product should be stored in vented containers. Product should also be stored in opaque containers to prevent exposure to light. To maximize product shelf life, store the product in an opaque container, in a cool, dry, well-ventilated area.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Component	CAS-No	Weight %	ACGIH TLV (TWA)	ACGIH (STEL or Ceiling)	OSHA PEL (TWA)	OSHA (STEL or Ceiling)
Sodium hydroxide	1310-73-2	<10		2mg/m ³ (Ceiling)	2mg/m ³	-

Engineering Controls Use only in well-ventilated areas.

Personal Protective Equipment:

Eye/face Protection Chemical goggles or face shield with safety glasses.

Skin Protection Wear protective gloves/clothing.

Hand protection Gloves resistant to chemical permeation.

Other information Wear suitable protective clothing.

9. PHYSICAL AND CHEMICAL PROPERTIES

Flash point	Not applicable.
Flammable limits (LEL, UEL)	No data available
Form	Liquid
Vapor pressure	~19 mmHg(25°C)
Color	Yellow. Orange.
Density	1.29-1.37 g/ml(25°C)
Odor	Mild.
Vapor density	No data available
pH	12.4-14.0
Water Solubility	Miscible.
Boiling Point	~106°C
Melting/freezing point	~0 °C / 32°F
Viscosity, dynamic	No data available
Viscosity, kinematic	~2cSt(25°C)
Flammability (solid, gas)	Not applicable
Oxidizing Properties	Oxidizer

10. STABILITY AND REACTIVITY

Stability Stable.

Conditions to Avoid Protect from light. Extremes of temperature and direct sunlight. Keep away from heat. Freezing.

Materials to avoid This product is strongly basic and an oxidizing agent. Avoid contact with alcohols, aldehydes, strong reducing agents, strong oxidizers, acids, ammonia-containing products, and common metals such as steel, aluminum, iron and copper. Use of incompatible materials can promote the exothermic decomposition of the product.

Hazardous decomposition products None under normal use.

Hazardous Polymerization None under normal processing.

11. TOXICOLOGICAL INFORMATION

Routes of exposure	No information available
Health and hazardous information	
Acute toxicity Skin contact Eye contact Inhalation Skin sensitization Carcinogenic effects Mutagenic Effects Reproductive Effects Target Organ Effects Chronic Effects Aspiration Hazard Statement	Not expected to be acutely toxic. Causes burns. It is not consider to be a contact dermal sensitizer. Possible risks of irreversible effects. Not expected to be a primary route of exposure. It is not consider to be a contact dermal sensitizer. No information available No information available No information available No information available None known No information available
Signs and Symptoms of Overexposure	No information available
LD50 Oral: LD50 Dermal: Inhalation LC50	Rat Oral LD50: 2491 mg/kg Rat Dermal LD50: >2000 mg/kg Rat Inhalation LC50: > 20.37mg/l

12. ECOLOGICAL INFORMATION

Ecotoxicity	3.8 mg whole material/L; LC-50/96-hour; Bluegill Sunfish <i>Lepomis Macrochirus</i> 4.8 mg whole material/L; EC50/48-hour; Waterflea <i>Daphnia Magna</i> 2.6 mg whole material/L; IC50/96-hour; Unicellular Green Alga, <i>Selenastrum capricornutum</i>
Ecotoxicity effects	No information available.
Persistence/Degradability	No information available
Bioaccumulation/ Accumulation	No information available
Mobility in Environmental Media	No information available
Other adverse effects	No information available

13. DISPOSAL CONSIDERATIONS

Waste Disposal Method	Dispose in a safe manner in accordance with local/national regulations.
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14. TRANSPORT INFORMATION

DOT
Proper Shipping Name Corrosive Liquids, Basic, Inorganic, N.O.S. (Halogenated Complex, Sodium Hydroxide)
Hazard Class 8
UN No. 3266
Packing Group III
Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

IMDGIMO
IMO Class 8
Packing Group III
UN-No 3266
IMO Labelling and Marking 8
Proper Shipping Name Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide)
EmS F-A, S-B
Marpol - Annex II Not determined
Marpol - Annex III Unregulated
Transport Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

IATA/ICAO
IATA/ICAO Class 8
Packing Group III
UN-No 3266
IATA/ICAO Labelling/Marking 8
Passenger Aircraft Forbidden (Product is shipped in containers with vented caps)
Cargo aircraft only Forbidden (Product is shipped in containers with vented caps)
Proper shipping name Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide)
Transport Description UN 3266 Corrosive liquid, Basic, Inorganic, N.O.S. (Halogenated complex, Sodium hydroxide), 8, III

15. REGULATORY INFORMATION

International Inventories	TSCA	DSL	NDSL	AICS	EINECS	ELINCS	ENCS	KECL	PICCS	CHINA	NZIoC
STABROM® 909 Biocide	-	-	-	X	-	-	-	X	X	-	X

(X) Complies (-) Does not Comply

TSCA Statement

THIS MATERIAL IS EXEMPT FROM THE TOXIC SUBSTANCES CONTROL ACT (15 USC 2601-2629).

SARA 313

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous Categorization

Chronic Health Hazard No
Acute Health Hazard Yes
Fire Hazard No
Sudden Release of Pressure Hazard No
Reactive Hazard No

Reportable and Threshold Planning Quantities

The following components have RQs and/or TPQs under SARA and/or CERCLA

Component	CAS-No	Weight %	SARA 302 RQ, lbs	CERCLA RQ, lbs	SARA 302 TPQ, lbs
Sodium hydroxide	1310-73-2	<10		1000	

State Regulations

This product contains the following chemicals regulated in the states listed below.

Component	CAS-No	California Prop. 65	Massachusetts	New Jersey	Pennsylvania
Sodium hydroxide	1310-73-2		Listed.	Listed.	Listed.

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.

WHMIS Hazards

E Corrosive material
 D2B Toxic materials

16. OTHER INFORMATION

Prepared By Health & Environment Department
 Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

HEALTH AND ENVIRONMENT DEPARTMENT
 ALBEMARLE CORPORATION
 451 FLORIDA ST.
 BATON ROUGE, LA 70801
 (800) 535-3030

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Revision Number: 7

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