

**STABROM® 909 Biocide**

**Material Safety Data Sheet**

Revision Date: 20-Nov-2009  
Supersedes 22-Sep-2009

**1. PRODUCT AND COMPANY IDENTIFICATION**

<b>Product Name</b>	STABROM® 909 Biocide		
<b>Chemical Name</b>	Proprietary.		
<b>Chemical Family</b>	Stabilized bromine biocide, aqueous solution		
<b>CAS-No</b>	Mixture		
<b>Recommended use</b>	Water treatment chemical		
<b>Company</b>	Albemarle Corporation 451 Florida Street Baton Rouge, LA 70801		
		<b>NFPA</b>	<b>HMIS</b>
		<b>Health</b>	
		<b>Flammability</b>	
		<b>Physical Hazards</b>	
<b>Emergency Telephone Numbers</b>	225-344-7147	3	3
<b>For Non-Emergency</b>	800-535-3030	0	0

**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 Environmental Protection, Storage Requirement Section for details)

**Potential Health Effects**

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

<b>Ad Lib</b>	
<b>Eye contact</b>	If medical advice is needed: Have product container or label at hand. 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.
<b>Skin Contact</b>	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.
<b>Inhalation</b>	Move to fresh air.
<b>Ingestion</b>	If swallowed, Call a physician or Poison Control Centre 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.
<b>Notes to Physician</b>	Probable mucosal damage may contraindicate the use of gastric lavage.

#### 5. FIRE-FIGHTING MEASURES

<b>Combustion/explosion hazards</b>	Not available.
<b>Suitable Extinguishing Media</b>	Not required
<b>Hazardous Combustion Products</b>	Bromine. Chlorine
<b>Protective Equipment and Precautions for Firefighters</b>	In the event of fire and/or explosion do not breathe fumes.

#### 6. ACCIDENTAL RELEASE MEASURES

<b>Personal Precautions</b>	Ensure adequate ventilation..
<b>Environmental precautions</b>	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.
<b>Methods for Clean-up</b>	Soak up with inert absorbent material (e.g. sand, silica gel, universal binder, sawdust).

## 7. HANDLING AND STORAGE

<b>Handling</b>	Avoid contact with skin, eyes and clothing.
<b>Storage</b>	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 110F. 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 Reactivity Data 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. <b>STORAGE CONTAINER:</b> 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 <sup>3</sup> (Ceiling)	2mg/m <sup>3</sup>	2mg/m <sup>3</sup> (Ceiling)

**Engineering Controls** Use only in well-ventilated areas.

### Personal Protective Equipment

<b>Eye/face Protection</b>	Chemical goggles or face shield with safety glasses.
<b>Skin Protection</b>	Wear protective gloves/clothing.
<b>Hand protection</b>	Gloves resistant to chemical permeation.
<b>Other information</b>	Wear suitable protective clothing.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Flash point</b>	Not applicable.	<b>Flammable limits (LEL, UEL)</b>	No data available
<b>Form</b>	Liquid	<b>Vapor pressure</b>	19 mmHg(25°C)
<b>Color</b>	Yellow.	<b>Density</b>	1.29-1.37 g/ml(25°C)
<b>Odor</b>	Mild. Sweet.	<b>Vapor density</b>	No data available
<b>pH</b>	12.4(min.)	<b>Water Solubility</b>	Miscible.
<b>Boiling Point</b>	106°C	<b>Melting/freezing point</b>	0 °C / 32°F
<b>Viscosity, dynamic</b>	~2.7cPs(25°C)	<b>Viscosity, kinematic</b>	~2cSt(25°C)
<b>Oxidizing Properties</b>	Oxidizer		

**10. STABILITY AND REACTIVITY**

<b>Stability</b>	Stable.
<b>Conditions to Avoid</b>	Protect from light. Extremes of temperature and direct sunlight. Keep away from heat. Freezing.
<b>Materials to avoid</b>	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.
<b>Hazardous decomposition products</b>	None under normal use.
<b>Hazardous Polymerization</b>	None under normal processing.

**11. TOXICOLOGICAL INFORMATION****Acute Effects**

<b>Eye contact</b>	Possible risks of irreversible effects.
<b>Skin contact</b>	Causes burns.
<b>Ingestion</b>	Harmful if swallowed.
<b>LD50 Oral:</b>	2491 mg/kg
<b>LD50 Dermal:</b>	>2000 mg/kg
<b>Inhalation LC50</b>	> 20.37mg/l

**12. ECOLOGICAL INFORMATION**

<b>Ecotoxicity</b>	
<b>LC50</b>	3.8 mg whole material/L; 96-hour; Bluegill Sunfish Lepomis Macrochirus
<b>Ecotoxicity effects</b>	No information available.

**13. DISPOSAL CONSIDERATIONS**

<b>Waste Disposal Method</b>	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

**IMDG/IMO**  
**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** 8  
**Passenger Aircraft** Forbidden  
**Cargo aircraft only** Forbidden  
**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

(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 and Title 40 of the Code of Federal Regulations, Part 372.

**SARA 311/312 Hazardous Categorization**

<b>Chronic Health Hazard</b>	No
<b>Acute Health Hazard</b>	Yes
<b>Fire Hazard</b>	No
<b>Sudden Release of Pressure Hazard</b>	No
<b>Reactive Hazard</b>	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

<b>16. OTHER INFORMATION</b>
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**Prepared By**

Health & Environment Department  
Albemarle Corporation

FOR ADDITIONAL NONEMERGENCY PRODUCT INFORMATION, CONTACT:

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BATON ROUGE, LA. 70801  
(800) 535-3030

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