



**Albemarle Corporation
Material Safety Data Sheet**

**451 Florida Street, Baton Rouge, LA 70801
For Emergencies Only - Phone (225) 344-7147
For Non-Emergency Health & Safety Phone
1-800-535-3030**

**Representing Albemarle Foreign Sales Corporation
for Export Sales**

ISSUE DATE: 11/02/06
SUPERSEDES: 05/08/06
HMIS CLASSIFICATIONS:
HEALTH: 3
FLAMMABILITY: 0
REACTIVITY: 0

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PRODUCT IDENTIFICATION

PRODUCT NAME: STABROM Plus Biocide

CHEMICAL NAME: Proprietary

CAS NO.: Mixture - not applicable.

CHEMICAL FORMULA: Proprietary mixture

CHEMICAL FAMILY: Stabilized bromine biocide, aqueous solution

STABROM is a trademark of Albemarle Corporation.

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SUMMARY OF HAZARDS

Causes irreversible eye damage.
Causes burns to the skin.
Harmful by ingestion and skin absorption.
Can decompose exothermically at elevated temperatures (see
Environmental Protection, Storage Requirement section
for details).

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OSHA HAZARDOUS COMPONENTS

CHEMICAL NAME	CAS NO.	NOTE	EXPOSURE LIMIT
Unreacted Alkali Metal Base	Proprietary	ND	2 mg/m3 Ceiling (OSHA/ACGIH)
STABROM Plus biocide	Proprietary		Not established by OSHA/ACGIH.

NOTE: Carcinogenicity listing of components at concentrations greater than or equal to 0.1% indicated by: @=NTP; #=IARC; &=OSHA; +=ACGIH; *=OTHER; ND=Not Designated.

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CHEMICAL AND PHYSICAL PROPERTIES

APPEARANCE/ODOR: Yellow/Orange liquid/mild odor.

BOILING POINT: Approx. 227F.

VAPOR PRESSURE: Approx. 15 mm Hg @ 23C.

SOLUBILITY IN WATER: Miscible.

SPECIFIC GRAVITY: 1.35 - 1.45 @ 25/25C.

MOLECULAR WEIGHT: Mixture.

MELTING POINT: FREEZING POINT: Approx. 36F (2C).

PH: 12.4 (min.).

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FIRE AND EXPLOSION HAZARDS

FLASH POINT(METHOD): Not applicable.

FLAMMABLE LIMITS: Not applicable.

EXTINGUISHING MEDIA: None required.

SPECIAL FIRE FIGHTING PROCEDURES: Avoid breathing fumes.

HAZARDOUS THERMAL DECOMPOSITION PRODUCTS: Include bromine and chlorine.

UNUSUAL FIRE AND EXPLOSION HAZARDS: None known.

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REACTIVITY DATA

CONDITIONS TO AVOID: High temperature/freezing/heat/light especially direct sunlight.

MATERIALS TO AVOID: This product is strongly basic and an oxidizing agent. Avoid contact with alcohols, aldehydes, strong reducing agents, strong oxidizers, acids, and ammonia containing products. Avoid contact with metals such as steel, aluminum, iron and copper.

HAZARDOUS POLYMERIZATION: Will not occur.

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HEALTH HAZARDS

INHALATION: Not expected to be toxic. Do not breathe fumes from fires or decomposition.

EYE CONTACT: Causes irreversible eye damage.

SKIN CONTACT: Causes burns to the skin.

INGESTION: Harmful if swallowed.

CHRONIC EFFECTS OF OVEREXPOSURE: None known.

NOTE: Toxicity information on this product is not available. Below is the toxicity information on a ~20% more dilute solution.

TOXICITY DATA: ACUTE ORAL TOX LD50 = 2,491 mg/kg of body weight; ACUTE DERMAL TOX LD50 = >2,000 mg/kg of body weight; ACUTE INHALATION LC50 = >20.37 mg/l. Not a contact Dermal Sensitizer; Corrosive to skin.

AQUATIC TOXICITY DATA: ORGANISM: Bluegill Sunfish Lepomis Macrochirus - TOXICITY RESULTS: 96-hour LC50 value was 3.8 mg whole material/L. ORGANISM: Waterflea Daphnia magna - TOXICITY RESULTS: 48-hour EC 50 value was 4.8 mg whole material/L. ORGANISM: Unicellular Green Alga, Selenastrum capricornutum - TOXICITY RESULTS: 96-hour I50 value was 2.6 mg whole material/L.

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EMERGENCY FIRST AID PROCEDURES

INHALATION: Remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, give oxygen. Get medical attention.

EYE CONTACT: Immediately flush eyes with plenty of water for at least 15 minutes. Remove contact lenses, if present, after the first 5 minutes and continue rinsing the eyes. Get medical attention.

SKIN CONTACT: Immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention.

INGESTION: If swallowed, have person sip a glass of water if able to swallow. Do not induce vomiting. Get medical attention immediately.

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EXPOSURE CONTROL INFORMATION

EXPOSURE LIMITS: Not established by OSHA/ACGIH.

EYE PROTECTION: Chemical goggles or face shield when splash may occur.

PROTECTIVE GLOVES: Resistant to chemical penetration.

RESPIRATORY PROTECTION: None under normal conditions. In irritating atmospheres use NIOSH approved acid gas respirator.

MECHANICAL VENTILATION: Use and store in well-ventilated area.

OTHER: If skin contact or contamination of clothing is likely, protective clothing should be worn.

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ENVIRONMENTAL PROTECTION

SPILLS OR LEAKS: Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Take up small spills by first diluting with water and then using a dehalogenating agent such as sodium thiosulfate solution. Large spills may be taken up with pump or vacuum and finished off with dry chemical absorbent. May require excavation of contaminated soil.

DISPOSAL METHODS: Under the CERCLA/RCRA regulations currently in effect, this material could be regulated as a hazardous waste or material. Therefore, it must be disposed of in a 'permitted' hazardous waste facility in compliance with EPA and/or other applicable local, state, and federal regulations. It should be handled in a manner acceptable to good waste management practice. Following neutralization to render the material nonhazardous, the material may be disposed of in a manner acceptable to good waste management practice and in compliance with applicable local, state, and federal regulations.

The Reportable Quantity (RQ) of this product is 20,000 pounds minimum based on the alkali metal base content of the product.

STORAGE REQUIREMENTS: STORAGE CONDITIONS: 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. 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.

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ADDITIONAL PRECAUTIONS OR COMMENTS

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REGULATORY INFORMATION

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TSCA:

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

DOT DESCRIPTION/PROPER SHIPPING NAME:

CORROSIVE LIQUIDS, BASIC, INORGANIC, N.O.S.
(HALOGENATED COMPLEX, SODIUM HYDROXIDE)

See NOTE 1.

DOT HAZARD CLASS: 8 (CORROSIVE)

DOT ID NUMBER: UN3266

DOT PACKING GROUP: III

HAZARD CATEGORIES FOR SARA 311/312 REPORTING ARE INDICATED BELOW:

HEALTH	Immediate (Acute)	Yes
HEALTH	Delayed (Chronic)	No
PHYSICAL	Fire	No
PHYSICAL	Sudden Release of Pressure	No
PHYSICAL	Reactive	No
	Nuisance Mist/Dust Only	No

NOTE 1: See CERCLA for Reportable Quantity.

COMPONENT NAME	CAS NO.	PERCENTAGE	REGULATION
Unreacted Alkali Metal Base	Proprietary	5.0	CERCLA
CERCLA --- RQ=1000			NJ RTK-SHH PA.RTK

(Typical value of Alkali metal base is <5.0%.)

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ADDRESS CONTACT INFORMATION

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MSDS 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

THIS MATERIAL SAFETY DATA SHEET CONTAINS AT LEAST
THE INFORMATION REQUIRED BY THE FEDERAL OSHA HAZARD
COMMUNICATION RULE, 29 CFR 1910.1200(g) (2).

THE RESPONSIBILITY TO PROVIDE A SAFE WORKPLACE REMAINS WITH
USER. THE USER SHOULD CONSIDER THE HEALTH HAZARDS AND SAFETY
INFORMATION CONTAINED HEREIN AS A GUIDE AND SHOULD TAKE
THOSE PRECAUTIONS REQUIRED IN AN INDIVIDUAL OPERATION TO
INSTRUCT EMPLOYEES AND TO DEVELOP WORK PRACTICE PROCEDURES
FOR A SAFE WORK ENVIRONMENT.

THE INFORMATION CONTAINED HEREIN IS, TO THE BEST OF OUR
KNOWLEDGE AND BELIEF, ACCURATE. HOWEVER, BECAUSE THE
CONDITIONS OF HANDLING AND USE ARE BEYOND OUR CONTROL, WE
MAKE NO GUARANTEE OF RESULTS, AND ASSUME NO LIABILITY FOR
DAMAGES INCURRED BY THE USE OF THIS MATERIAL. IT IS THE
RESPONSIBILITY OF THE USER TO COMPLY WITH ALL FEDERAL,
STATE, AND LOCAL LAWS AND REGULATIONS.

11/02/06