



MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

- **Product name:** **BIO-3**
- **Manufacturer:** Deep South Chemical, Inc.
229 Millstone Road
Broussard, LA 70518 (337) 837-9931
- **For Emergency :** Call CHEMTREC 1-800-424-9300
Outside the U.S.A. (703)-527-3387
- **Chemical Family:** Amines, hydrazine and biocide mixture.
- **Formula:** Proprietary Mixture
- **Contact Person:** Glenn Ray
- **MSDS Revised:** January 1, 2014

HMS RATING: Health (2) Fire (1) Reactivity (1)

SECTION 2. COMPOSITION/INFORMATION ON INGREDIENTS

Hazardous components	CAS Number	%	PEL(OSHA)		TLV(ACGIH)		IDLH
			TWA	STEL	TWA	STEL	
Ethanol, 2,2' oxybis-	68909-77-3	15-25	N/E	N/E	N/E	N/E	3300ppm
Morpholine, 4,4'- (oxydi-2,1-ethanediyl)bis-	6425-39-4	0.5-3	N/E	N/E	N/E	N/E	NE
Glutaraldehyde	111-30-8	1-5	NE		NE		NE
Hydrazine hydrate	302-01-2	5-15	1 ppm skin		0.013 mg/m ³		NE

SECTION 3. HAZARDS IDENTIFICATION, INCLUDING EMERGENCY OVERVIEW

Effects of overexposure:

Inhalation: No information is available.

Eye Contact: Irritation to eyes.

Skin Contact: Irritating to skin. Slightly toxic if absorbed through skin.

Ingestion: There may be irritation of the mouth, throat, and digestive tract. Low systemic toxicity.

SECTION 4. FIRST AID MEASURES

Eyes: Move victim away from exposure and into fresh air. If irritation persists, seek medical attention. For direct exposure, flush with clean water for 15 minutes. Hold eyelids apart to ensure flushing of the entire eye surface.

Inhalation: Move victim away from source of exposure and into fresh air. If irritation persists, seek medical attention. If victim is not breathing, artificial respiration should be administered.

Skin: Remove contaminated clothes. Cleanse affected area thoroughly with soap and water. If irritation persists, seek medical attention. Wash contaminated clothing.

Ingestion: Drink plenty water. If victim is drowsy or unconscious, place on left side with head down. Seek medical attention.

SECTION 5. FIRE FIGHTING MEASURES

Fire fighting measures: Use water fog, powder, foam, or CO₂ to extinguish fire.

Special fire fighting procedures: Water spray to cool drums. Use NIOSH approved self contained breathing apparatus.

Fire Hazards: None

SECTION 6. ACCIDENTAL RELEASE MEASURES

Steps to be taken if material is released or spilled: Soak up on absorbent, inert material. Wash area with water. For large spills, dike area and pump into suitable containers. Do not allow to enter drains or waterways. Wear respirator and protective clothing as appropriate.

Waste disposal method: Dispose of according to local, state and federal regulations in an approved disposal facility or recycling facility.

SECTION 7. HANDLING AND STORAGE

Storage: Keep container tightly closed when not in use. Store in dry place. Ensure adequate air circulation. Avoid strong oxidizing agents. Avoid potential sources or ignition.

Handling: Avoid contact with skin or eyes. When handling do not eat, drink or smoke. Prevent static buildup and discharge. Keep away from potential sources of ignition.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Flammable Limits (% by volume in air) @ 61⁰F: LEL: 1.0 UEL: 8.0

Ventilation: Exhaust.

Protective clothing: Impermeable gloves and impervious clothing as appropriate.

Eye protection: Chemical goggles where splashing may occur.

Special Protection: Safety shower, eye bath and washing facilities should be available.

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Specific gravity @ 75°F (H₂O = 1): 1.055

Flash Point: 305°F

Vapor density (Air = 1): N/D

Solubility: Very slight

Vapor pressure: N/D

Evaporation Rate: N/A

Appearance and Odor: Amber liquid and odorless

Boiling Point: >200°F approx.

Freezing Point: N/D

Percent Volatile by Volume: N/D

pH: 9.2-9.3

Auto-ignition: N/D

SECTION 10. STABILITY AND REACTIVITY

Stability and Reactivity: Stable in normal conditions.

Incompatibility/Materials: Strong oxidizing agents. Do not use with aluminum equipment at temperatures above 120°F.

Hazardous Decomposition Products: Smoke, carbon oxides.

Hazardous polymerization: Will not occur.

SECTION 11. TOXICOLOGICAL INFORMATION

Hazardous Ingredients: Irritating to eyes and skin.

Immediate Health Effects: Irritation.

Delayed Health Effects: Defatting of skin with frequent or prolonged skin contact.

Acute Effects (Short term): N/D

Chronic Effects (Long term): N/D



SECTION 12. ECOLOGICAL INFORMATION

UK OCNS Category: N/D

Environmentally Dangerous Ingredients: None

Persistence and Degradability: All the components are biodegradable.

Biodegradation: N/A

ErC50 (72 hours) Skeletonema Costatum: N/D

LC50 (48 hours) Acartia tonsa: N/D

LC50 (10 days) Corophium voliotator: N/D

Bioaccumulative Potential: Low

Aquatic Toxicity: 48 HR LC50 (mysid shrimp) N/D

Marine Pollutant (IMDG Code): No

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal of waste materials: Incinerate or in compliance with local regulations.

Disposal of waste containers: Recycle, clean out residues.

Disposal restrictions: Comply with local regulations.

Statutory notification required: None in UK

SECTION 14. TRANSPORT INFORMATION

Transport information: DOT Non Regulated

Shipping labeling: Salt Solution

SECTION 15. REGULATORY INFORMATION

Supply Label Symbols: Xi-Irritant

Toxic Substances Control Act (TCSA): All components of this material are on the USA TSCA inventory.

SECTION 16. OTHER INFORMATION

Not Applicable

HMIS RATING: Health (2) Fire (1) Reactivity (1)

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N/D=NO DATA; N/A=NOT APPLICABLE; N/E = NOT ESTABLISHED