

# BIO

CORPORATION

## MATERIAL SAFETY DATA SHEET

Last Revision: December 2005

3911 Nevada Street  
Alexandria MN 56308

320-763-9094  
800-222-9094

### SECTION 1: MATERIAL IDENTIFICATION

PRODUCT NAME: **EMBALMING FLUID**  
CHEMICAL NAME: MIXTURE  
MANUFACTURER: BIO COMPANY INC.  
EMERGENCY: CHEMTREC 1-800-424-9300;  
BIO CORPORATION 1-320-763-9094

#### HMIS HAZARD

4 - Extreme	HEALTH.....3
3 - High	FIRE .....2
2 - Moderate	REACTIVITY ...0
1 - Slight	OTHER
0 - Least	

SIGNATURE / DATE *Bill Waddel* 12-30-05

### SECTION 2: HAZARDOUS INGREDIENTS

<u>HAZARDOUS CHEMICAL</u>	<u>CAS #</u>	<u>PERCENT</u>	<u>PEL/TWA</u>	<u>SARA III, SEC 313</u>
Ethylene Glycol	107-21-1	5.0%	50 ppm	YES
Phenol	108-95-02	2.7%	5 ppm	YES
Formalin	50-00-00	1.8%	.75 ppm	YES
Water	7732-185	90.5%		

### SECTION 3: CHEMICAL & PHYSICAL PROPERTIES

Appearance:	Clear, colorless liquid
Odor:	Pungent, irritating
Boiling Point (°F):	210
Freezing Point (°F):	32
Chemical composition:	Mixture
Specific Gravity (H <sub>2</sub> O=1 @ 70°F):	>1.0
Water solubility:	Soluble
Vapor Pressure (mm Hg):	>1.0
Percent Volatile By Volume:	9.5 %
Evaporation Rate (Butyl Acetate = 1)	<1.0
Vapor Density (Air = 1)	ND

### SECTION 4: FIRE & EXPLOSION HAZARDS

FLAMMABLE MATERIAL:	NO
FIRE / EXPLOSION HAZARD SUMMARY:	Not a fire hazard when exposed to heat or flame
FLASHPOINT:	180°F/82°C
AUTO IGNITION TEMPERATURE:	>932°F/500°C
LOWER EXPLOSION LIMIT:	Non-combustible material
UPPER EXPLOSION LIMIT:	Non-combustible material
EXTINGUISHING:	Mediates best for surrounding fire conditions
FIREFIGHTING:	Use best for surrounding fire-fighting conditions

## — SECTION 5: REACTIVITY INFORMATION —

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STABILITY: Normally stable to air, water, and light

INCOMPATIBILITY: Avoid strong oxidizing agents such as: nitrates, perchlorates or concentrated sulfuric, nitric, or acetic acids. Material may be reactive with potassium t-butoxide. **AVOID ANY CONTACT WITH HYDROCHLORIC ACID.** Resultant product may contain BIS-chloromethyl ether, and OSHA-regulated carcinogen

HAZARDOUS DECOMPOSITION PRODUCTS: Formaldehyde gas, carbon monoxide and carbon dioxide

HAZARDOUS POLYMERIZATION: Non-hazardous polymerization may occur at low temperatures, forming paraformaldehyde, a white solid.

CONDITIONS TO AVOID: Strong oxidizing agents; excessive heating of material.

## — SECTION 6: HEALTH HAZARDS - PROTECTIVE MEASURES - FIRST AID —

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EXPOSURE LIMITS: Formalin OSHA: 0.75ppm (PEL)/2ppm (15 min.STEL)LC50 (rat, inhalation): 478ppm/LD50 (rat, oral) 500mg/kg LD50 (rabbit, skin):270mg/kg  
Phenol OSHA/ACGIH 55ppm (skin) MAK 5ppm (skin)  
Trace Ingredients Not listed.

EYES: Contact may cause irritation. Rinse both upper and lower eyelids for 15 minutes with clean water. If irritation persists contact a physician.

SKIN: Prolonged skin contact may cause irritation in hypersensitive individuals. Remove any saturated clothing; wash skin with soapy water. If irritation persists contact a physician.

INHALATION: May produce short term upper respiratory irritation. Remove to fresh air, if breathing has stopped, administer CPR; contact a physician immediately. Off-gassing of small amounts of formaldehyde gas possible. Sensory threshold below PEL. If irritating effects are noticed remove to fresh air. If symptoms persist (>30 minutes): contact a physician.

INGESTION: **TOXIC, INDUCE VOMITING.** If conscious, give 8-10oz. (240-300ml) of water to dilute material in stomach. Induce vomiting by gastric lavage at once. Repeat. Have victim lean forward to minimize aspiration. Contact physician immediately.

IN ALL CASES: GET PROMPT MEDICAL ATTENTION IF ADVERSE EFFECTS DEVELOP.

PRIMARY ROUTES OF ENTRY: Skin, eyes, inhalation, ingestion.

HYGIENE: Wash hands and face before eating or drinking. Wash soiled clothing before wearing again.

## — SECTION 7: PRECAUTIONS FOR SAFE HANDLING, STORAGE & USE —

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PERSONAL PROTECTION EQUIPMENT: Splash-proof eye goggles, nitrile gloves, apron, sleeve protector.

OTHER PROTECTIVE EQUIPMENT: Eyewash station within 15 second walk from production activities.

SMALL SPILLS: Cover spill area with sorbent material. Wipe up. Evaporate saturated sorbent material to dryness in chemical fume hood or outdoors: discard dry, material as solid waste.

**DISPOSAL: This material is not considered a hazardous waste by E.P.A. and may be discharged to a sanitary sewer (if local regulations permit). Discharge, treatment and disposal may be subject to Federal, State/Provincial and local regulations.**

**STORAGE AND HANDLING:** Keep containers closed. Store away from heat or ignition sources. Do not heat above 140 F. Do not eat or smoke where embalming fluid is being used or handled. Wear impervious clothing as needed to prevent exposure while handling.

## — SECTION 8: SPECIAL PROTECTION INFORMATION —

**VENTILATION:** Local exhaust ventilation recommended to assure formaldehyde PEL compliance. Monitor effectiveness using passive dosimeter badge.

**RESPIRATORY PROTECTION:** Monitor for STEL/PEL compliance. Use NIOSH approved formaldehyde vapor respirator if PEL OR STEL is expected to be exceeded.

**SKIN PROTECTION: (EXCELLENT/GOOD):** Nitrite or butyl rubber gloves. **(GOOD/FAIR):** Natural rubber, neoprene rubber when working with this material, or with dissection specimens fixed in this material.

**EYE PROTECTION:** Splash-proof chemical safety goggles. Wear NO CONTACT LENSES during use of this material, or during dissection activities.

**OTHER PROTECTIVE EQUIPMENT:** Eye-wash station in close proximity. Sleeve protectors recommended

## — SECTION 9: REGULATORY INFORMATION —

**DOT CLASSIFICATION:**

**HAZARD CLASSIFICATION:** IRRITANT

**OTHER REGULATORY GUIDELINES: CALIFORNIA PROPOSITION #65: WARNING:** This product a chemical known to the State of California to cause cancer.

**RIGHT-TO-KNOW LABELING:** Embalming Fluid.

**IRRITANT:**

Hazardous Components (v/v): Formalin(<5.096) CAS#50-00-00 IARC – listed chemical.

Phenol (>396) CAS# 107-21-1

**SAFETY EQUIPMENT:** Nitrile/butyl rubber gloves, splash-proof chemical goggles, apron, sleeve protectors. Eyewash station in close proximity.

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