BIO
CORPORATION

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MATERIAL SAFETY DATA SHEET

Last Revision: December 2005

SECTION 1: MATERIAL IDENTIFICATION

PRODUCT NAME: **PAIL PACKING FLUID**
CHEMICAL NAME: FORMALIN MIXTURE
MANUFACTURER: BIO COMPANY INC.
EMERGENCY: CHENTREC 1-800-424-9300
BIO CORPORATION 1-320-763-9094

SIGNATURE / DATE Bill Wadell 12-30-05

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

SECTION 2: HAZARDOUS INGREDIENTS

HAZARDOUS CHEMICAL	CAS #	PERCENT	PEL/TWA	SARA III, SEC 313
Formalin	50-00-0	3.0%	.75ppm	YES
Water		97%		

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_2O=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

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

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-buttoned. **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

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 and wash the skin with soap and 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 and 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 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.

SECTION 7: PRECAUTIONS FOR SAFE HANDLING, STORAGE & USE

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.

PERSONAL PROTECTION EQUIPMENT Splash-proof eye goggles, nitrite 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: Eyewash 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/ Packing 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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ND – Not Determined NA – Not Applicable NE – Not Established