



# MATERIAL SAFETY DATA SHEET

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MSDS No.: FF0265  
Effective Date: January 10, 2007

## SECTION I NAME

## 24 HOUR EMERGENCY ASSISTANCE

<b>Product</b>	Formalin in Alcohol Solution
<b>Chemical Synonyms</b>	All Purpose Fixative, Preserving Fluid
<b>Formula</b>	Mixture.
<b>Unit Size</b>	up to 3.785 Lt.
<b>C.A.S. No.</b>	Mixture.

3 2 0	<b>CHEMTREC</b> 800-424-9300 Day 585-226-6177	<b>Health</b>	3
	<b>NFPA</b>  HAZARD RATING MINIMAL SLIGHT MODERATE SERIOUS SEVERE 0 1 2 3 4	<b>HMSIS*</b>	<b>Fire</b>
<b>Reactivity</b>			0

## SECTION II INGREDIENTS OF MIXTURES

Principal Component(s)	%	TLV Units
Ethyl alcohol, denatured*: CAS No. 64-17-5.	89.44%	1000 ppm (Air).
Formaldehyde 37%: CAS No. 50-00-0.	10.56%	0.3 ppm (ceiling), 0.37 mg/m <sup>3</sup>
<b>DANGER! FLAMMABLE!</b>		

**HARMFUL OR FATAL IF SWALLOWED. HARMFUL IF ABSORBED THROUGH SKIN.**

## SECTION III PHYSICAL DATA

Melting Point (°F)	-114°C (-173°F) **	Specific Gravity (H <sub>2</sub> O = 1)	0.7919 - 0.7955 @ 60/60°F **
Boiling Point (°F)	74-80°C (165.2-176°F) **	Percent Volatile by Volume (%)	100%
Vapor Pressure (mm Hg)	Ca 50 @ 20°C **	Evaporation Rate (n-Butyl acetate =1)	Ca. 2 **
Vapor Density (Air=1)	Ca 1.5 **		
Solubility in Water	Complete.		
Appearance & Odor	Clear, water white liquid; alcohol, formaldehyde odor.		

## SECTION IV FIRE AND EXPLOSION HAZARD DATA

<b>Flash Point (Method Used)</b>	(5°C) 41°F **	<b>Flammable Limits in Air % by Volume Ethyl alcohol</b>	<b>Lower</b>	<b>Upper</b>
<b>Extinguisher Media</b>	Carbon dioxide; dry chemical; water spray.			

### SPECIAL FIREFIGHTING PROCEDURES

Wear a NIOSH/MSHA-approved self-contained breathing apparatus and full protective clothing. Water spray may be used to keep fire exposed containers cool.

(2004 EMERGENCY RESPONSE GUIDEBOOK, RSPA P 5800.9, GUIDE PAGE NO. 127)

### UNUSUAL FIRE AND EXPLOSION HAZARDS

Vapors formed from this product may travel or be moved by air currents and ignited by pilot lights, other flames, smoking, sparks, heaters, electrical equipment, static discharge, or other ignition sources at location distant from handling point. **CAUTION:** Flame may not be visible in daylight. Fire or excessive heat may produce hazardous decomposition products; can react vigorously with oxidizing materials.

\* Denaturants:  
Methyl alcohol: (CAS No. 67-56-1)...TWA: 200 ppm; STEL: 250 ppm, Methyl isobutyl ketone: (CAS No. 108-10-1)...TWA: 50 ppm; 75 ppm, Isopropyl alcohol: (CAS No. 67-63-0)...TWA: (400 ppm); STEL: (500 ppm), Water: (CAS No. 7732-18-5)... N/A

\*\* For Ethyl alcohol, 200 Proof

**D.O.T.** Ethanol, 3, UN1170, PG II, Ltd Qty ≤ 1 Lt.

Approved by U.S. Department of Labor "essentially similar" to form OSHA-20

## SECTION V HEALTH HAZARD DATA

FF0265

**Threshold Limited Value** None established for the mixture.

**Effects of Overexposure** May be fatal if swallowed. Harmful by inhalation or skin absorption. To the best of our knowledge, this chemical mixture's physical and toxicological properties have not been thoroughly investigated. Exercise appropriate procedures to minimize potential hazards. Ethyl Alcohol causes dizziness, drowsiness, decreased reaction, euphoria, nausea, vomiting, staggering gait, and coma. Formaldehyde may be fatal if swallowed. Contact with skin may cause allergic irritation. Strong irritant to skin, eyes and mucous membranes. Target organs: Eyes, central nervous system, liver, kidneys.

**Emergency and First Aid Procedures**  
**INGESTION:** Call physician or Poison Control Center immediately. Induce vomiting only if advised by appropriate medical personnel. Never give anything by mouth to an unconscious person. **EYES:** Check for and remove contact lenses. Flush thoroughly with water for at least 15 minutes, lifting upper and lower eyelids occasionally. Get immediate medical attention. **SKIN:** Remove contaminated clothing. Flush thoroughly with mild soap and water. If irritation occurs, get medical attention. **INHALATION:** Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention.

## SECTION VI REACTIVITY DATA

<b>Stability</b>	<b>Unstable</b>		<b>Conditions to Avoid</b>	Excessive temperatures, sparks, flame.
	<b>Stable</b>	X		

**Incompatibility (Materials to Avoid)** Strong oxidizers.

**Hazardous Decomposition Products** When heated to decomposition, emits toxic fumes of carbon monoxide and/or carbon dioxide.

<b>Hazardous Polymerization</b>	<b>Conditions to Avoid</b>
<b>May Occur</b>	<b>Will Not Occur</b>
	X

Not applicable.

## SECTION VII SPILL OR LEAK PROCEDURES

**Steps to be taken in case material is released or spilled** Remove all sources of ignition, provide adequate ventilation. Absorb spill in sand, vermiculite or other available absorbing material and place in a suitable container. Flush spill area with water. Burn in an approved incinerator or open pit away from buildings and people.

**Waste Disposal Method** Discharge, treatment, or disposal may be subject to Federal, State or Local laws. These disposal guidelines are intended for the disposal of catalog-size quantities only.  
Dispose of in an approved incinerator or contact with a licensed waste disposal service.

## SECTION VIII SPECIAL PROTECTION INFORMATION

<b>Respiration Protection (Specify Type)</b>	In the laboratory, work in a ventilation hood. Wear a NIOSH/MSHA approved cartridge respirator for organic vapors.			
<b>Ventilation</b>	<b>Local Exhaust</b>	<b>Recommended.</b>	<b>Special</b>	<b>No.</b>
	<b>Mechanical (General)</b>	<b>Recommended.</b>	<b>Other</b>	<b>Adequate to maintain below exposure levels.</b>
<b>Protective Gloves</b>	Rubber.		<b>Eye Protection</b>	Chemical safety goggles.
<b>Other Protective Equipment</b>	Smock, apron, eye wash station, ventilation hood, faceshield, proper gloves, fire extinguisher.			

## SECTION IX SPECIAL PRECAUTIONS

**Precautions to be Taken in Handling & Storing** Store in a cool well-ventilated place away from strong oxidizers or fire hazards. Wash thoroughly after handling.  
Keep container tightly closed when not in use.

**Other Precautions** Read label on container before using. Do not wear contact lenses when working with chemicals. For laboratory use only. Not for drug, food or household use. Keep out of reach of children.

Do not take internally. Use with adequate ventilation. Avoid contact with skin and eyes. Remove and wash contaminated clothing.

<b>Revision No.</b> 3	<b>Date</b> 01/10/07	<b>Approved</b> James A. Bertsch	<b>Chemical Safety Coordinator</b> JAB
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