

# MATERIAL SAFETY DATA SHEET

**FRIGID**

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**PRODUCT NAME: 36 PLUS**

## 1. CHEMICAL PRODUCT & COMPANY IDENTIFICATION

Product Identifier: 36 Plus  
General Use: Arterial Embalming Fluid

Frigid Fluid Company, 11631 West Grand Avenue, Northlake, Illinois, 60164  
Emergency Phone: 1-800-424-9300  
Business-hours Phone: 1-708-836-1215

## 2. COMPOSITION/INFORMATION ON INGREDIENTS

Ingredient	CAS No.	Percentage by Wgt.	Exposure Limits (ppm)			
			OSHA		ACGIH	
			TWA	STEL	TLV	STEL
Formaldehyde	50-00-0	33	0.75	2	---	0.3(c)
Methyl Alcohol	67-56-1	15-25	200(s)	250	200(s)	250
Ethylene Dichloride	107-71-6	5-10	50	200	10	----
Triethanolamine	102-71-6	5-10	NE	NE	5 mg/m3	----

## 3. HAZARDS IDENTIFICATION

**EMERGENCY OVERVIEW: Poisonous if swallowed. Eye, skin and respiratory tract irritant. Potential cancer hazard. May be a skin or respiratory tract sensitizer. May be absorbed by the skin. Flammable.**

### POTENTIAL HEALTH EFFECTS:

**INHALATION:** Highly irritating to upper respiratory tract. May cause inflammation of linings of nose, throat and lungs. High exposures may cause bronchopneumonia and edema. May cause an allergic reaction.

**EYE CONTACT:** May cause severe burns with irreversible damage. High vapor concentrations cause severe irritation and tearing.

**SKIN CONTACT:** Causes drying, cracking, scaling and hardening of skin. May cause an allergic dermatitis.

**INGESTION:** Poisonous if swallowed. Causes severe irritation of the mouth, throat and stomach. Can lead to severe stomach pains followed by vomiting, diarrhea, and possible loss of consciousness. Blindness or death may occur.

**CHRONIC:** The NTP and OSHA list formaldehyde as a carcinogen due to studies on laboratory animals. IARC lists formaldehyde as a human carcinogen. Ethylene dichloride is listed by OSHA, NTP and IARC as a suspected carcinogen. Formaldehyde is also mutagenic in vitro with several bacteria. Methyl alcohol shows limited mutagenic activity.

## 4. FIRST AID MEASURES

**INHALATION:** Remove to fresh air. If breathing has stopped, give artificial

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N/A = Not applicable

(s) = skin absorption contributes significantly to the overall exposure

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respiration and call a physician.

**EYE CONTACT:** Flush with water 15 minutes. Call a physician immediately.

**SKIN CONTACT:** Wash with soap and water after removing contaminated clothing. Call a physician if irritation persists.

**INGESTION:** Call a physician immediately. Do not induce vomiting unless so instructed by a physician.

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### 5. FIRE FIGHTING MEASURES

#### FLAMMABLE PROPERTIES:

Flash Point: 82°F (28°C) Method: Pensky-Martens

Flammable Limits: 6 to 73%

Autoignition Temperature: Not available.

**HAZARDOUS COMBUSTION PRODUCTS:** CO, CO<sub>2</sub>, HCl.

**EXTINGUISHING MEDIA:** Dry chemical, foam, CO<sub>2</sub>. Use water spray to cool fire exposed surfaces

**FIRE FIGHTING INSTRUCTIONS:** Wear self-contained breathing apparatus and full protective equipment for all indoor and significant outdoor fires.

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### 6. ACCIDENTAL RELEASE MEASURES

**SMALL SPILL:** Eliminate ignition sources. Neutralize with Frigid's Spill Guard and/or flush to municipal sewer (not to septic system). Liquid can also be absorbed on dustless-type hardening compound, cloth, paper, etc. and placed in a covered container. Have incinerated as hazardous waste or use appropriately with hardening compound.

**LARGE SPILL:** Use same procedure as above and save for incineration as hazardous waste.

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### 7. HANDLING AND STORAGE

**HANDLING:** Use in a well-ventilated area away from heat, sparks or flames. Keep containers closed. Rinse empty containers three times with water, adding rinsings to arterial fluid dilution water.

**STORAGE:** Store in cool, well-ventilated areas between 50 and 100°F.

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### 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**ENGINEERING CONTROLS:** General exhaust or local exhaust ventilation is required to keep vapors below the PELs.

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**RESPIRATORY PROTECTION:** Use a NIOSH/MSHA approved formaldehyde or acid gas cartridge or canister respirator if PELs are exceeded. Follow the OSHA guidelines in 29 CFR 1910.1048.

**SKIN PROTECTION:** Use latex or other impervious gloves, an impervious gown (or impervious apron and sleeves).

**EYE PROTECTION:** Use Chemical splash goggles. A face shield should also be used if splashes to the face are expected. If the PELs are exceeded, vapor tight goggles must be used.

## 9. PHYSICAL AND CHEMICAL PROPERTIES

**BOILING RANGE:** 146°F (28°C)

**MELTING POINT:** Not Applicable

**VAPOR PRESSURE:** NE

**VAPOR DENSITY:** > 1

**SOLUBILITY IN WATER:** 100%

**SPECIFIC GRAVITY:** 1.09

**ODOR:** Pungent

**% VOLATILE BY VOLUME:** > 90

**APPEARANCE:** Reddish-pink, translucent liquid.

## 10. STABILITY AND REACTIVITY

**CHEMICAL STABILITY:** (CONDITIONS TO AVOID) None.

**INCOMPATIBILITY:** Strong acids, alkalis, oxidizing agents.

**HAZARDOUS DECOMPOSITION PRODUCTS:** Formaldehyde gas, HCl.

**HAZARDOUS POLYMERIZATION:** Will not occur.

## 11. TOXICOLOGICAL INFORMATION

Formaldehyde: LD<sub>50</sub> 800mg/kg (100mg/kg from some sources) (oral, rat), 270mg/kg (skin, rabbit); LC<sub>50</sub> 590mg/kg (rat); IDLH: 100 ppm, 20 ppm (30 minutes). Methyl alcohol: LD<sub>50</sub> 5628mg/kg (oral, rat), 20 ml (skin, rabbit); LC<sub>50</sub> 64,000 ppm (4H, rat). Ethylene glycol: LD<sub>50</sub> 4.7g/kg (oral, rat).

## 12. ECOLOGICAL INFORMATION

Prevent run-off from reaching natural waterways, including septic systems.

## 13. DISPOSAL CONSIDERATIONS

See Section 6.

## 14. TRANSPORT INFORMATION

**DOT:** Consumer Commodity, ORM-D (by US ground transportation)

## 15. REGULATORY INFORMATION

EPCRA (SARA Title III), Sec. 313 listed materials: Formaldehyde, CAS No. 50-00-0, 33%; Methanol, CAS No. 67-56-1, >25%; Ethylene Dichloride, CAS No. 107-06-02, >10%

**WARNING!** This product contains a chemical known to the State of California to cause cancer.

## 16. OTHER INFORMATION

NFPA rating: Health 2, Fire 3, Reactivity 0 (4 = extreme, 0 = insignificant).

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