

Safety Data Sheet

Section 1. Chemical Product and Company Identification

Product Name Formaldehyde, 37%	Product Code RS4243
Supplier Name Avantik	Emergency Telephone Number 800-783-9424
Address (Number, Street, City, State, and ZIP Code) 19 Chapin Road - Building C	Telephone Number for Information 800-783-9424
Pine Brook, NJ 07058	Date Prepared 4/10/2000 rev (11/06)
	Signature of Preparer (optional)

Section 2. Composition/Information on Ingredients

Component	CAS #	OSHA PEL	ACGIH TLV	Other Limits Recommended	Percent
Formaldehyde	50-00-0	0.75 ppm	0.3 ppm		37%
Methanol	67-56-1	200 ppm	200 ppm		12-15%
Water	7732-18-5	N/A	N/A		Balance

Section 3. Hazards Identification

Emergency Overview

Significant exposure to this chemical may adversely affect people with chronic disease of the respiratory system, skin and/or eyes.

Potential Health Effects

Eye Can cause chemical burn-damage irreversible. Vapor causes irritation, tearing, and burning sensation.

Skin Can cause moderate injury-reddening and swelling. Sensitizer (allergic reaction possible). Liquid causes drying, cracking and scaling. Repeated or prolonged contact causes hardening (tanning). Moderately toxic to animals by absorption.

Ingestion Poisonous if swallowed. Causes severe irritation and inflammation of the mouth, throat, and stomach. Severe stomach pains follow with possible loss of consciousness. Causes blindness, stupor, nausea and vomiting leading to severe illness, possibly death. Formaldehyde-slightly toxic to animals.

Inhalation Can cause pneumonia and abnormal pulmonary edema (accumulation of fluid in the lungs), signs and symptoms of pulmonary edema can be delayed for several hours. Sensitizer (allergic reaction possible). May cause sensitization of the respiratory system. Moderately toxic to animals.

Carcinogenicity Formaldehyde is carcinogenic to animals (nasal cancer, lifetime inhalation study, rats), listed as an experimental animal carcinogen (IARC, NTP) a probable human carcinogen (IARC), and a potential cancer hazard (OSHA) Methanol-no evidence of carcinogenic potential in limited animal studies in which methanol was given orally or applied to the skin.

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Teratology

Reproduction

Formaldehyde-no evidence of reproductive effects in animal

studies (mice, rats, dogs).

Methanol-reported to cause birth defects in rats exposed to very high levels

of vapors (20,000 ppm).

Mutagenicity

In vitro, formaldehyde is mutagenic (mutagenic activity detected

in *E. Coli*, *Pseudomonas fluorescens*, and *saccharomyces cervisiae*). Methanol

shows limited evidence of mutagenicity (mouse, lymphoma forward mutation assay).

In vivo, limited evidence of mutagenicity.

Section 4. First Aid Measures

Eye

Immediately flush eyes with plenty of water for at least 15

minutes, occasionally lifting the upper and lower eyelids. Get medical attention

immediately.

Skin

Get medical aid. Immediately flush skin with plenty of soap and

water for at least 15 minutes while removing contaminated clothing and shoes.

Ingestion

Induce vomiting of conscious patient immediately by giving

2 glasses of water and pressing finger down throat. Call physician immediately.

Inhalation

Remove patient from contaminated area. If breathing has stopped,

give artificial respiration, then oxygen if needed. Call physician immediately.

All Other Means of Exposure

CONTACT POISON CONTROL CENTER IMMEDIATELY. Be prepared to

provide hazardous ingredient information from Section 2.

Section 5. Fire Fighting Measures

Flammable Properties

Flash Point

141-145 F

Method

N/A

Flammable Limits

Lower

7.0

Upper

73.0

Autoignition Temperature

N/A

Hazardous Combustion Products

Carbon monoxide.

Extinguishing Media

Use CO₂, or dry chemical for small fires, alcohol-type

aqueous film-forming or water spray for large fires.

Fire Fighting Instructions

If potential for exposure to vapors or products of combustion

exists, wear complete personal protective equipment, including self-contained

breathing apparatus with full facepiece operated in pressure demand or other

positive pressure mode. Water can be used to reduce intensity of flames and to

dilute spills to non-flammable mixture. Use water spray to cool fire-exposed

structures and vessels.

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Section 6. Accidental Release Measures

Place leaking containers in well-ventilated area with spill containment. If fire potential exists, blanket spill with alcohol type aqueous film forming foam or use water spray to disperse vapors. Contain spill to facilitate clean-up. Clean-up methods may include absorbent materials, vacuum truck, etc. Avoid runoff into storm sewers and ditches which lead to natural waterways. Neutralize with ammonium hydroxide or sodium sulfite. Call the National Response Center (800-424-8802) if quantity of any component spilled is equal to or greater than the reportable quantity (formaldehyde - 100 lb/day; methanol 5000 lb/day) under CERCLA "Superfund"

Section 7. Handling and Storage

Handling Keep containers closed when not in use. Always open containers slowly to allow any excess pressure to vent. Use only DOT-approved containers. When transferring follow proper grounding procedures. Avoid breathing vapor. Avoid contact with eyes, skin, and clothing. Wash thoroughly with soap and water after handling. Decontaminate clothing thoroughly before reuse. Discard contaminated leather clothing.

Storage Store in a tightly closed container. Store in a cool, well-ventilated area. Keep away from heat, sparks and flame.

Section 8. Exposure Controls, Personal Protection

Engineering Controls Local exhaust recommended when appropriate to control employee exposure. Mechanical (general) not recommended as the sole means of employee exposure.

Respiratory Protection Based on contamination level and working limits of the respirator, use a respirator approved by NIOSH/MSHA. (following are minimum recommended equipment) 1.75 ppm - 7.5 ppm: Air purifying respirator with full facepiece and cartridge(s) or canister specifically approved for protection against formaldehyde, or a full facepiece powered air-purifying respirator fitted with cartridge(s) or canister specifically approved for protection against formaldehyde. 7.5 ppm - 75 ppm: Positive-pressure full facepiece supplied-air respirator, or continuous-flow full facepiece supplied-air respirator. >75 ppm or unknown concentration: positive-pressure self-contained breathing apparatus with full facepiece. Positive-pressure supplied-air respirator with full facepiece equipped with an auxiliary positive-pressure self-contained breathing apparatus escape system.

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Escape: Positive-pressure self-contained breathing apparatus with full facepiece or full facepiece mask with chin style or front or back mounted type industrial size canister specifically approved for protection against formaldehyde.

Skin Protection Neoprene or rubber gloves. For operations where spills or splashing can occur, use chemical protective clothing, including gloves and boots. A safety shower and eye bath should be readily available.

Eye Protection Chemical safety goggles.

Permissible Exposure Levels (see also Section 2)

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Section 9. Physical and Chemical Properties

Boiling Point	204-205F	Specific Gravity (H2O = 1)	1.053-1.047
Vapor Pressure (mm Hg)	152-156	Melting Point	N/A
Vapor Density (AIR = 1)	0.83-0.85	Evaporation rate (Butyl Acetate = 1)	N/A
Solubility in Water	Complete	Physical State	Liquid
Appearance and Odor	Clear/colorless. Pungent odor	Other	

Section 10. Stability and Reactivity

Chemical Stability	Stable
Incompatibility	Caustic soda, soda ash and other alkalis; sodium, potassium and other alkali metals; amines; acids; oxygen, hydrogen peroxide and other strong oxidizing agents.
Hazardous Decomposition Products	Carbon monoxide
Hazardous Polymerization	Will not occur.

Section 11. Toxicological Information

Section 12. Ecological Information

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Section 13. Disposal Considerations

All notification, clean-up and disposal should be carried out in accordance with federal, state and local regulations. Preferred methods of waste disposal are incineration or biological treatment in federal/state approved facility.

Hazardous waste code U122

Section 14. Transport Information

GROUND SHIPMENTS: Formaldehyde, solutions, flammable, 3,8, UN1198, III

AIR SHIPMENTS: Formaldehyde, solutions, flammable, 3,8, UN1198, III

NOTE: It is ultimately the shippers responsibility to make hazard class determination based on their best information available.

Section 15. Regulatory Information

Section 16. Other Information

When handled properly by qualified personnel, the product described herein does not present a significant health or safety hazard. Alteration to its characteristics by concentration, evaporation, addition of other substances, or other means may present hazards not specifically addressed herein and which must be evaluated by the user. The information furnished herein is believed to be accurate and represents the best data currently available to us. No warranty, expressed or implied, is made and AVANTIK BIOGROUP assumes no legal responsibility or liability whatsoever resulting from its use.