

EMS CATALOG NO: 18510
EMS PRODUCT: Methanol
DATE: 10/10/95
PAGE NUMBER: One of 5

MATERIAL SAFETY DATA SHEET

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FOR PRODUCT AND SALES INFORMATION

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PRODUCT IDENTIFICATION

PRODUCT NAME: Methanol
TRADE NAME: Methyl Alcohol, Wood Alcohol
CAS NUMBER: 67-56-1
CHEMICAL FAMILY: Aliphatic Alcohol
FORMULA: CH₃OH
MOLECULAR WEIGHT: 32.04
DOT SHIPPING NAME: Methanol
DOT NUMBER: UN1230

* * * CATALOG NO: 18510 * * * (Page 2 of 5)

NFPA HAZARD RATINGS: HEALTH: 1

REACTIVITY: 0
FLAMMABILITY: 3
SPECIAL HAZARDS: -

HAZARDOUS INGREDIENTS

None other than specified product.

PHYSICAL DATA

BOILING POINT (760 mm Hg): 64.5oC
MELTING POINT: -98oC
SPECIFIC GRAVITY (H2O=1): 0.791
VAPOR PRESSURE (mm Hg): 97 @ 20oC
PERCENT VOLATILE BY VOL (%): 99.9+
VAPOR DENSITY (AIR=1): 1.1
EVAPORATION RATE (BUAC=1): 5.91
SOLUBILITY IN WATER (%): Miscible
APPEARANCE AND ODOR: Colorless liquid, characteristic alcoholic odor.

FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: 52oF (TCC)

FLAMMABLE LIMITS LEL %: 6.7
FLAMMABLE LIMITS UEL %: 36.5

EXTINGUISHING MEDIA: Dry chemical, "alcohol" foam, CO2, water mist.

FIRE FIGHTING PROCEDURE: Wear self-contained breathing apparatus.

FIRE & EXPLOSIVE HAZARDS:

Closed containers may explode upon heating. Vapor can travel distances to ignition source and flash back.

HEALTH HAZARD DATA (ACUTE AND CHRONIC)

ACGIH TLV/OSHA PEL (TWA):

(TLV) 200 ppm; STEL: 250 ppm (SKIN)
(PEL) 200 ppm; STEL: 250 ppm (SKIN)
* * * CATALOG NO: 18510 * * * (Page 3 of 5)

TOXICITY DATA:

ORL-HMN LDLO: 143 mg/kg
ORL-RAT LD50: 5628 mg/kg
IHL-RAT LD50: 64000 ppm/4 h

ROUTES OF ENTRY: Inhalation, ingestion or skin contact.

SYMPTOMS OF EXPOSURE:

Toxic by ingestion and inhalation. Can be toxic by skin absorption.

Affects central nervous system, especially optic nerve.

Marked impairment of vision and enlargement of the liver has been reported with chronic exposure.

Causes dizziness, nausea, muscle weakness, narcosis, respiratory failure.

Ingestion can produce blindness (100 ml can be fatal).

Prolonged or repeated skin contact may cause irritation.

MEDICAL CONDITIONS AGGRAVATED BY EXPOSURE:

Skin conditions, eye problems, or impaired liver or kidney function.

CARCINOGENICITY: The material is not listed as a cancer causing agent.

EMERGENCY FIRST AID: Get medical assistance for all cases of overexposure.

SKIN: Wash thoroughly with soap and water.

EYES: Immediately flush thoroughly with large amounts of water.

INHALATION: Remove to fresh air; give artificial respiration if breathing has stopped.

INGESTION: Get immediate medical attention. If medical attention is not immediately available, induce vomiting. Do not induce vomiting if patient is unconscious.

Remove contaminated clothing and wash before reuse.

* * * CATALOG NO: 18510 * * * (Page 4 of 5)

REACTIVITY DATA

STABILITY: Yes

CONDITIONS TO AVOID: Heat; contact with ignition source.

MATERIALS TO AVOID: Oxidizers; reactive metals.

HAZARDOUS POLYMERIZATION: Does not occur

HAZARDOUS DECOMPOSITION: COX, Formaldehyde.

ENVIRONMENTAL PROTECTION PROCEDURES

SPILL RESPONSE: Dike spill; take up with absorbent; containerize for proper disposal

WASTE DISPOSAL: To be performed in compliance with all current local, State and Federal regulations.

SPECIAL PROTECTION INFORMATION

VENTILATION, RESPIRATORY PROTECTION, PROTECTIVE CLOTHING, EYE PROTECTION:

Material should be handled or transferred in an approved fume hood or with adequate ventilation.

Protective gloves (butyl rubber, viton, or equivalent) should be worn to prevent skin contact.

Safety glasses with side shields should be worn at all times.

NIOSH/MSHA-approved respirator should be worn in the absence of adequate ventilation.

SPECIAL PRECAUTIONS

HANDLING AND STORAGE:

Store in a cool area away from ignition sources and oxidizers.

Do not breath vapor or solution mist.

* * * CATALOG NO: 18510 * * * (Page 5 of 5)

Do not get in eyes, on skin, or on clothing.

Electrically ground all equipment when handling this product.

WORK/HYGIENIC PRACTICES:

Wash thoroughly after handling. Do not take internally.

Eye wash and safety equipment should be readily available.

OTHER INFORMATION

COMMENTS: Tests on laboratory animals indicate material may produce adverse mutagenic and reproductive effects.