

MATERIAL SAFETY DATA SHEET

PRODUCT: **METHANOL**

DATE: January , 2013

SUPPLIER: Hon-Mark Hardware,
1630 Midland Avenue
Scarborough, Ontario, M1P 3C2
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CANUTEC 613-996-6666

I. IDENTIFICATION

SYNONYMS: Methyl Alcohol; Methyl hydrate; Wood Alcohol

CHEMICAL NAME: Methanol

CHEMICAL FAMILY: Alcohols

CHEMICAL FORMULA: CH₃OH

C.A.S. NUMBER: 67-56-1

TRANSPORT: Classification: 3 (6.1)

P.I.N.: 1230

PACKING GROUP: II

Shipping Name: Methanol

WHMIS CLASSIFICATION: B-2; D-1A; D-2B

II. HAZARDOUS INGREDIENTS

I. Methanol

C.A.S.#: 67-56-1

Range % (w/w): 100

LD50-Oral: 5628 mg/kg (Rat)

LD50-Dermal: 20 gm/kg (Rabbit)

LC50: 64000 ppm/4H (Rat)

T.L.V.: 200 ppm skin (ACGIH 1986/87)

III. HEALTH HAZARDS

EFFECTS OF OVEREXPOSURE:

EYES: High vapour concentration or liquid contact causes irritation, tearing and burning sensation. Long term repeated exposure to high vapour concentration (>1000 ppm) may produce impairment of vision.

SKIN: Repeated or prolonged contact causes crying, brittleness, cracking, irritation may result in the absorption of harmful amounts of methanol.

INHALATION: Extremely high levels produce narcosis, headache, nausea, giddiness, and loss of consciousness.

INGESTION: Poisonous if swallowed. Causes blindness, narcosis, headache and vomiting leading to severe illness and perhaps death.

CHRONIC HEALTH HAZARDS: Repeated exposure by inhalation or absorption may cause systemic poisoning.

FIRST AID:

EYES: Flush eyes with water for at least 15 minutes. Contact a physician.

SKIN: Remove contaminated clothing and wash with large amounts of water. Contact a physician.

INHALATION: Remove victim from further exposure and restore breathing if required.

INGESTION: Induce vomiting of conscious patient immediately by giving 2 glasses of water and pressing finger down throat. Contact a physician immediately.

NOTES TO PHYSICIAN: There is no specific antidote. Treatment of overexposure should be directed at the control of symptoms and the clinical condition.

IV. FIRE & EXPLOSION HAZARDS

FLASH POINT & method (c) 12 9TCC)

FLAMMABLE LIMITS (% in air): Lower: 5.5
Upper: 36.5

EXTINGUISHING MEDIA: Use dry chemical, alcohol form; or CO₂; water may be ineffective, but should be used to keep fire-exposed containers cool.

SPECIAL FIRE FIGHTING PROCEDURES: Wear self-contained breathing apparatus and complete personal protective equipment. Use water spray to cool fire-exposed structures and tanks and to disperse vapour cloud if fire is not present. Dilution of burning liquid with water spray will reduce intensity of flames.

UNUSUAL FIRE & EXPLOSION HAZARDS: Vapour is heavier than air and may travel considerable distance to a source of ignition and flash back. Burns with invisible flame in daylight.

V. PHYSICAL DATA

The following physical data are approximate only and do not represent specification values. They should only be used in the context of this Material Safety Data Sheet.

BOILING POINT (C): 64.6
SPECIFIC GRAVITY: (20C): 0.79
VAPOUR PRESSURE: (20C): 96 mm Hg
VAPOUR DENSITY: (air=1) 1:1
WATER SOLUBILITY: Complete
VOLATILITY (%): 100
EVAPORATION RATE (Butyl acetate=1): 2.0
APPEARANCE & ODOUR: Water white liquid with characteristic mild odour.

VI. REACTIVITY

STABILITY: Stable

CONDITIONS TO AVOID: Heat, sparks, open flames and other ignition sources.

INCOMPATIBILITY: Strong oxidizing agents, nitric acids, aldehydes, acyl chlorides.

HAZARDOUS DECOMPOSITION PRODUCTS: Carbon monoxide and carbon dioxide produced on combustion.

HAZARDOUS POLYMERIZATION: Will not occur.

VII. SPILLS & LEAK PROCEDURES

STEPS TO BE TAKEN IF MATERIAL IS RELEASED OR SPILLED: Place leaking container in well-ventilated area. Eliminate all sources of ignition. Use foam to control vapours. Flush area with water sparingly or use an absorbent material to contain and/or remove spill. Dike larger spills to minimize the contaminated area and facilitate salvage or disposal. Avoid run off into storm sewers and ditches, which may lead to natural waterways. Advise authorities of larger spills.

WASTE DISPOSAL METHODS: Incineration, biological treatment of diluted solution or landfill if solidified prior to disposal, in accordance with federal, provincial and local regulations.

VIII. SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Use approved air-supplied respirator.

VENTILATION: Local exhaust desirable. Mechanical general ventilation to maintain below TLV. Equipment should be spark proof.

PROTECTIVE GLOVES: Neoprene or rubber.

EYE PROTECTION: Chemical goggles to avoid eye contact.

ADDITIONAL PROTECTIVE EQUIPMENT: For operations where spills or splashing may occur, use an impervious body covering, face shield and boots. A safety shower and eye wash facility should be available.

IX. ADDITIONAL INFORMATION

HANDLING & STORAGE: Keep away from heat, sparks and other sources of ignition. Keep containers closed. Avoid breathing vapour. Do not get in eyes, on skin or clothing. Wash thoroughly with soap and water after handling.

OTHER INFORMATION: May be fatal or cause blindness if ingested. Cannot be made non-poisonous. Prolonged or repeated breathing of vapour is harmful. Use of spark-resistant tools and equipment is recommended. The reaction of methanol with nitric acid is considered hazardous not only because it is exothermic, but also because it produces methyl nitrate. Methyl nitrate reportedly can explode violently if shocked mechanically or heated.

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