MEDICAL CHEMICAL CORPORATION
SINCE 1954

SDS for Methanol
Catalog # 107B

Creation date: 05-08-15 **Revision date: 03-18-2024** **Revision number: 1.06**

Section I - Product Identification

Product: Methanol is also called methyl alcohol and wood alcohol.

Intended Uses: This product is a general purpose laboratory reagent.

Uses advised against: For laboratory use only. Methanol is toxic and can not be made non-toxic.

Country of origin: United States.

Manufacturer Identification

Medical Chemical Corp.
19430 Van Ness Ave.
Torrance, CA 90501

Customer Service: Phone (310)787-6800
Email: Customerservice@med-chem.com
FAX (310)787-4464

Emergency Telephone Number

CHEMTREC Emergency Response Telephone Number: (800)424-9300. Note: The CHEMTREC phone number is only for emergencies involving spills, leaks, fire, exposure or accident. Please direct all other inquiries to our customer service phone number.

Section II - Hazard Identification

This item is considered hazardous by 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200)

Flammable liquid: Category 2 (H225). Highly flammable liquid and vapor.
Eye damage/eye Irritation: Category 2 (H319)Causes serious eye irritation.
Acute toxicity (Oral): Category 3 (H301). Toxic if swallowed.
Acute toxicity (Inhalation): Category 3 (H331). Toxic if inhaled.
Acute toxicity (Dermal): Category 3 (H311). Toxic in contact with skin.
Specific target organ Toxicity: single exposure: Category 1 (H370). Causes damage to organs.

Signal word: Danger. Highly flammable liquid and vapor.

Hazard statement:

Highly flammable liquid and vapor. Keep away from heat, sparks, open flames and hot surfaces. No smoking. Keep container tightly closed. Use only non-sparking tools. Take precautions against static discharge. Wear protective clothes and eye protection. In case of skin contact immediately remove all contaminated clothing. Rinse with water or shower. In case of fire, use fire extinguishers approved for alcohol fires.

Precautionary statements

P210 Keep away from heat, sparks, open flames and hot surfaces. No smoking.
P233 Keep container tightly closed.
P240 Ground/bond container and receiving equipment.
P241 Use explosion-proof electrical/ventilating/lighting equipment.
P242 Use only non-sparking tools.
P243 Take precautions against static discharge.
P260 Do not breathe dust/fume/gas/mist/vapors/spray.
P264 Wash thoroughly after handling.
P270 Do not eat, drink or smoke when using this product.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective clothes and eye protection.
P361+P363 Remove contaminated clothing and launder before reuse.
P403+P405+P235 Store locked up in a cool well-ventilated place.

Safety Ratings

Health: Hazardous *Flammability*: Highly Flammable *Reactivity*: Stable *Contact*: Hazardous
Recommended safety equipment: safety goggles, lab coat and proper gloves

NFPA Ratings

Health = 2. Can cause temporary incapacitation or residual injury.
Flammability = 4. Will vaporize and readily burn at normal temperatures.
Reactivity = 0. Stable.

Potential Health Effects

Exposure to excessive vapor causes eye irritation, head- ache, fatigue and drowsiness. High concentrations can produce central nervous system depression and optic nerve damage. Can be absorbed through skin. 50,000 ppm will probably cause death in 1 to 2 hrs. Swallowing may cause death or eye damage.

Inhalation: Methanol is absorbed through the mucous membranes and will produce irritation as well as the same effects as ingestion. Exposure to excessive vapor causes eye irritation, head- ache, fatigue and drowsiness. High concentrations can produce central nervous system depression and optic nerve damage. Can be absorbed through skin.

Ingestion: Ingestion will produce CNS disturbance, dizziness, photophobia, headache, stupor, coma and death. Swallowing may cause death or eye damage. Death has resulted from ingestion of as little as 30 ml of methanol.

Skin contact: Methanol is absorbed through the skin. Repeated contact causes defatting of the skin with resultant irritation and flaking.

Eye contact: May be irritating.

Chronic Exposure: Unknown.

Aggravation of preexisting conditions: Impaired kidney and liver function may be aggravated by exposure to alcohols. Preexisting eye, skin, and respiratory conditions may also be aggravated. Methanol has shown genetic toxicity in some animals.

Section III - Composition/Information on Components

Ingredients	CAS#	EC List Number	% w/w
Methanol	67-56-1	200-659-6	100%

Section IV - First Aid Measures

General Advice: Contact a doctor if symptoms persist

Inhalation: Remove from source of exposure and get medical attention for any breathing difficulty.

Ingestion: Rinse mouth with water but do not induce vomiting. Aspiration of methanol into the lungs may produce death. If the patient is conscious administer two glasses of water to dilute the poison. Get immediate medical attention even if symptoms improve.

Skin Contact: In case of skin contact, remove contaminated clothing and flush with water. Wash affected area with soap and water. Get medical advice if irritation develops.

Eye Contact: In case of eye contact, remove contact lenses if possible and flush with water and get immediate medical attention.

Section V - Fire Fighting Measures

Warning: Methanol will burn with an invisible flame. Use an alternate method of detection.

Fire Extinguishing Media: Alcohol foam, carbon dioxide or dry chemical. Water is ineffective against alcohol fires but may be used to cool adjacent containers.

Specific Hazards: Risk of vapor traveling to source of ignition and flashing back. Risk of exploding containers when h*eated. Vapor in air may form explosion risk.*

Special information: Pyrolysis will release toxic carbon monoxide, formaldehyde and methanol.

Special protective gear and precautions: Self contained breathing apparatus and protective gear recommended.

Section VI - Accidental Release Measures

Use personal protective gear, remove all sources of ignition, absorb with a suitable absorbent and dispose. Take precautions against static ignition. Should not be released into the environment.

Section VII - Handling and Storage

P403+P405+P233+P102; Store in a cool well-ventilated place. Keep container tightly closed. Store away from open flames or other sources of ignition. Keep out of reach of children. Store locked up.

Section VIII - Exposure Control/Personal Protection

Component	ACGIH TLV	OSHA PEL	NIOSH	NIOSH IDLH
Methanol	TWA: 200 ppm (skin) STEL: 250 ppm	TWA: 200 ppm (skin)	TWA: 200 ppm (skin)	6000 ppm

ACGIH: American Conference of Governmental Industrial Hygienists.
IDLH: Immediately dangerous to life or health.
OSHA: Occupational Safety and Health Administration.
NIOSH: National Institute for Occupational Safety and Health.
TWA: Time weighted average.
STEL: Short term exposure limit.

Ventilation System: Local exhaust such as explosion proof chemical fume hoods are recommended. When required, Refer to the ACGIH document, "Industrial Ventilation, a Manual of Recommended Practices" for details *about ventilation.*

Personal Respirator: Usually not required. In case of emergency, or when exposure levels are unknown, use a positive pressure, full face piece, air supplied respirator.

Skin protection: Protective gloves are recommended as part of good laboratory practice.

Eye Protection: Laboratory safety goggles or similar products are not required but recommended as part of good laboratory practice.

Section IX - Physical and Chemical Properties

Appearance and Odor: A clear colorless liquid with the characteristic odor of methanol.

Flash Point: 52-54°F (11.1-12.2 *°C)*

Flammable Limits: LEL 6% UEL 36.5%
Boiling Point: 148 °F (65 °C) @ 1 atm
Density: 0.789 g/ml @ 22.5 °C
Evaporation Rate (Ethanol = 1): 1
Partition coefficient (*n*-Octanol/Water): No data
Solubility: Infinitely miscible with water
Vapor Density (air = 1): 1.11
Volatile organic carbon (VOC): 789 g/l

Auto ignition temperature: 867 °F (464 °C)
Boiling point range: No data
Decomposition temperature: No data
Melting Point: -144°F (-98 °C)
pH: Not applicable
Vapor Pressure: 13.0 mm kPa at 20 °C
Viscosity: 0.55 mPa @ 25 °C

Section X - Stability and Reactivity

Stability: Stable under normal conditions.

Hazardous Decomposition Products: Oxidation will produce formaldehyde and formic acid.

Hazardous polymerization: Will not occur.

Incompatibilities: Oxidizers, peroxides etc..

Conditions to avoid: Heat, flame and sources of ignition.

Section XI - Toxicological Information

Component	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methanol	5628 mg/kg (Rat)	15,800 mg/kg (Rabbit)	64,000 ppm/4h (Rat)

Cancer lists

Ingredient	*Known Carcinogenicity?*	*NTP?*	*Anticipated?*	*IARC Category*
Methanol	No	No	No	None

Section XII - Ecological Information

Aliphatic alcohols evaporate quickly and are not expected to bioaccumulate. The material is removed from the air by dry and liquid adsorption. The half-life for methanol in the atmosphere is one to ten days.

Environmental Fate: Biodegradable
Soil Mobility: Unknown
Environmental Toxicity: Low.

Toxicity to freshwater fish (blue gill):LC50 = 15,400 mg/l, 96 h
Toxicity to invertebrates (water flea): EC50 = 18,260 mg/l, 96 h
Toxicity to freshwater algae (Pseudokirchneriella subcapitata): EC50 = 22,000 mg/l, 72 h

Section XIII - Disposal Considerations

Incineration at a licensed chemical disposal facility is the preferred disposal method. Local governments often restrict the amounts of alcohol and other flammable liquids that may be flushed down the drain. The usual rule is that effluent exiting the building can't be flammable but specific chemicals may also be forbidden. Dispose of contents and container in accord with all applicable regulations.

Section XIV - Transportation Information

Bottles smaller than 32 fl oz. are eligible to be shipped under limited quantity exemptions.

DOT
Proper shipping name: Methanol UN number 1230 Class: 3(6.1)
Packaging Group: II Hazard Label: Flammable liquid

IATA
Proper shipping name: Methanol UN number: 1230 Class: 3(6.1)
Packaging Group: II Hazard Label: Flammable liquid

IMDG
Proper shipping name: Methanol UN umber:1230 Class: 3(6.1)
Packaging Group: II Hazard Label: Flammable liquid EMS-No: F-E, S-E

Section XV - Regulatory Information

Chemical Inventory Status

Ingredient	*TSCA*	*EC*
Methanol	Yes	Yes

Federal and State Regulations

Ingredient	*SARA 302 RQ*	*SARA 302 TPQ*	*SARA 313 List*	*SARA 313 Category*	*RCRA 261.33*	*TSCA 8(D)*	*Ca. Prop 65*
Methanol	No	No	Yes	No	U154	No	Yes

Chemical Weapons Convention: No TSCA 12(b): No CDTA: Yes

SARA 311/312	
Acute?	Yes
Chronic?	Yes
Fire?	Yes
Pressure?	No
Reactivity?	No

⚠ This product contains Methanol which is known to the state of California to cause birth defects or other reproductive harm. For more information go to www.P65warnings.ca.gov.

Section XVI - Other Information

This information is believed to be correct at the time of publication but is not guaranteed as such, nor does it purport to be all inclusive. Medical Chemical Corp. assumes no liability for the accuracy or completeness of the information. The user assumes all responsibility for compliance with federal, state and local laws.

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