



Effective Date: 04/01/13
Replaces Revision: 06/25/10

NON-EMERGENCY TELEPHONE
610-866-4225

24-HOUR CHEMTREC EMERGENCY TELEPHONE
800-424-9300

SDS – SAFETY DATA SHEET

1. Identification

Product Identifier: METHYL ALCOHOL

Synonyms: Wood Alcohol; Methanol; Carbinol

Chemical Formula: CH₃OH

Recommended Use of the Chemical and Restrictions On Use: Laboratory Reagent

Manufacturer / Supplier: Puritan Products; 2290 Avenue A, Bethlehem, PA 18017 **Phone:** 610-866-4225

Emergency Phone Number: 24-Hour Chemtrec Emergency Telephone 800-424-9300

2. Hazard(s) Identification

Classification of the Substance or Mixture:

Flammable liquids (Category 2)

Acute toxicity, Oral (Category 3)

Acute toxicity, Inhalation (Category 3)

Acute toxicity, Dermal (Category 3)

Skin irritation (Category 2)

Eye irritation (Category 2A)

Specific target organ toxicity - single exposure (Category 1)

Risk Phrases:

R11: Highly flammable.

R23/24/25: Toxic by inhalation, in contact with skin and if swallowed.

R39: Danger of very serious irreversible effects.

Label Elements:

Trade Name: METHYL ALCOHOL

Signal Word: Danger



Hazard Statements:

H225: Highly flammable liquid and vapor.

H301 + H311: Toxic if swallowed or in contact with skin.

H331: Toxic if inhaled.

H370: Causes damage to organs.

Precautionary Statements:

P210: Keep away from heat / sparks / open flames / hot surfaces. No smoking.

P260: Do not breathe dust / fume / gas / mist / vapors / spray.

P280: Wear protective gloves/ protective clothing.

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor / physician.

P307 + P311: IF exposed: Call a POISON CENTER or doctor / physician.

3. Composition / Information on Ingredients

CAS Number: 67-56-1

EC Number: 200-659-6

Index Number: 603-001-00-X

Molecular Weight: 32.04 g/mol

Ingredient	CAS Number	EC Number	Percent	Hazardous	Chemical Characterization
Methyl Alcohol	67-56-1	200-659-6	100%	Yes	Substance

4. First-aid Measures

Inhalation: Remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give Oxygen. Get medical attention immediately.

Ingestion: DO NOT INDUCE VOMITING unless directed by a physician! Give large amounts of water to drink. Never give anything by mouth to an unconscious person. Get medical attention immediately.

Skin Contact: In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical attention. Wash clothing before reuse. Thoroughly clean shoes before reuse.

Eye Contact: Immediately flush eyes with plenty of water for at least 15 minutes, lifting lower and upper eyelids occasionally. Get medical attention immediately.

5. Fire-fighting Measures

Fire: Flammable Liquid and Vapor! Flash point: 12C (54F) CC / Autoignition temperature: 464C (867F)
Flammable limits in air % by volume: lel: 6.0; uel: 36

Explosion: Above flash point, vapor-air mixtures are explosive within flammable limits noted above. Moderate explosion hazard and dangerous fire hazard when exposed to heat, sparks or flames. Sensitive to static discharge.

Fire Extinguishing Media: Use Alcohol foam, dry chemical or Carbon Dioxide. Water may be ineffective.

Special Information: In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full face piece operated in the pressure demand or other positive pressure mode. Use water spray to blanket fire, cool fire exposed containers, and to flush non-ignited spills or vapors away from fire. Vapors can flow along surfaces to distant ignition source and flash back.

6. Accidental Release Measures

Personal Precautions, Protective Equipment and Emergency Procedures: Ventilate area of leak or spill. Remove all sources of ignition. Wear appropriate personal protective equipment as specified in Section 8. Isolate hazard area. Keep unnecessary and unprotected personnel from entering.

Environmental Precautions and Methods and Materials for Containment and Cleaning Up: Contain and recover liquid when possible. Use non-sparking tools and equipment. Collect liquid in an appropriate container or absorb with an inert material (e. g., vermiculite, dry sand, earth,) and place in a chemical waste container. Do not use combustible materials, such as saw dust. Do not flush to sewer! If a leak or spill has not ignited, use water spray to disperse the vapors, to protect personnel attempting to stop leak, and to flush spills away from exposures. US Regulations (CERCLA) require reporting spills and releases to soil, water and air in excess of reportable quantities. The toll free number for the US Coast Guard National Response Center is (800) 424-8802.

7. Handling and Storage

Precautions for Safe Handling and Conditions for Safe Storage, Including Any Incompatibilities: Protect against physical damage. Store in a cool, dry well-ventilated location, away from any area where the fire hazard may be acute. Outside or detached storage is preferred. Separate from incompatibles. Containers should be bonded and grounded for transfers to avoid static sparks. Storage and use areas should be No Smoking areas. Use non-sparking type tools and equipment, including explosion proof ventilation. Containers of this material may be hazardous when empty since they retain product residues (vapors, liquid.) Observe all warnings and precautions listed for the product. DO NOT attempt to clean empty containers since residue is difficult to remove. Do not pressurize, cut, weld, braze, solder, drill, grind or expose such containers to heat, sparks, flame, static electricity or other sources of ignition: they may explode and cause injury or death.

8. Exposure Controls / Personal Protection

Airborne Exposure Limits:

OSHA Permissible Exposure Limit (PEL): 200 ppm (TWA)

ACGIH Threshold Limit Value (TLV): 200 ppm (TWA), 250 ppm (STEL) skin

Ventilation System: A system of local and / or general exhaust is recommended to keep employee exposures below the Airborne Exposure Limits. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation, A Manual of Recommended Practices*, most recent edition, for details. Use explosion-proof equipment.

Personal Respirators (NIOSH Approved): If the exposure limit is exceeded and engineering controls are not feasible, wear a supplied air, full face piece respirator, air-lined hood, or full face piece, self-contained breathing apparatus. Breathing air quality must meet the requirements of the OSHA respiratory protection standard (29CFR1910.134). This substance has poor warning properties.

Skin Protection: Rubber or neoprene gloves and additional protection including impervious boots, apron, or coveralls, as needed in areas of unusual exposure.

Eye Protection: Use chemical safety goggles and / or a full face shield where splashing is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance: Clear, colorless liquid

Odor: Characteristic odor

Odor Threshold: Not determined

pH: No information found

% Volatiles by volume @ 21C (70F): 100

Melting Point: -98C (-144F)

Boiling Point / Boiling Range: 64.5C (147F)

Flash Point: 11C (51.8F) CC

Evaporation Rate (BuAC=1): 5.9

Flammability: Flammable Liquid and Vapor!

Upper / Lower Flammability or Explosive Limits: Upper – 36 / Lower – 6.0
Vapor Pressure (mm Hg): 97 @ 20C (68F)
Vapor Density (Air=1): 1.1
Relative Density: 0.791 g/mL at 25C (77F)
Solubility: Miscible in water
Partition Coefficient: n-octanol / water: log Pow: -0.77
Auto-ignition Temperature: 464C (867F)
Decomposition Temperature: No information found
Viscosity: No information found

10. Stability and Reactivity

Reactivity and / or Chemical Stability: Stable under ordinary conditions of use and storage.

Possibility of Hazardous Reactions and Conditions to Avoid: Heat, flames, ignition sources and incompatibles.

Incompatible Materials: Strong oxidizing agents such as nitrates, perchlorates or Sulfuric Acid. Will attack some forms of plastics, rubber, and coatings. May react with metallic Aluminum and generate Hydrogen gas.

Hazardous Decomposition Products: May form Carbon Dioxide, Carbon Monoxide, and Formaldehyde when heated to decomposition.

11. Toxicological Information

Emergency Overview: POISON! DANGER! VAPOR HARMFUL. MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED. HARMFUL IF INHALED OR ABSORBED THROUGH SKIN. CANNOT BE MADE NONPOISONOUS. FLAMMABLE LIQUID AND VAPOR. CAUSES IRRITATION TO SKIN, EYES AND RESPIRATORY TRACT. AFFECTS CENTRAL NERVOUS SYSTEM AND LIVER.

Potential Health Effects:

Inhalation: A slight irritant to the mucous membranes. Toxic effects exerted upon nervous system, particularly the optic nerve. Once absorbed into the body, it is very slowly eliminated. Symptoms of overexposure may include headache, drowsiness, nausea, vomiting, blurred vision, blindness, coma, and death. A person may get better but then worse again up to 30 hours later.

Ingestion: Toxic. Symptoms parallel inhalation. Can intoxicate and cause blindness. Usual fatal dose: 100-125 milliliters.

Skin Contact: Methyl Alcohol is a defatting agent and may cause skin to become dry and cracked. Skin absorption can occur; symptoms may parallel inhalation exposure.

Eye Contact: Irritant. Continued exposure may cause eye lesions.

Chronic Exposure: Marked impairment of vision has been reported. Repeated or prolonged exposure may cause skin irritation.

Aggravation of Pre-existing Conditions: Persons with pre-existing skin disorders or eye problems or impaired liver or kidney function may be more susceptible to the effects of the substance.

Specific Target Organ Toxicity - Single Exposure (Globally Harmonized System:) Causes damage to organs.

Specific Target Organ Toxicity - Repeated Exposure (Globally Harmonized System:) No data available.

Numerical Measures of Toxicity: Cancer Lists: NTP Carcinogen

Ingredient	Known	Anticipated	IARC Category
Methyl Alcohol (67-56-1)	No	No	None

Acute Toxicity:

Oral rat LD50: 5628 mg/kg; inhalation rat LC50: 64000 ppm/4H; skin rabbit LD50: 15800 mg/kg;
Irritation data-standard Draize test: skin, rabbit: 20mg/24 hr. Moderate; eye, rabbit: 100 mg/24 hr. Moderate.
Investigated as a mutagen, reproductive effector.

12. Ecological Information

Ecotoxicity: This material is expected to be slightly toxic to aquatic life.

Toxicity to fish LC50 - *Oncorhynchus mykiss* (rainbow trout) - 19,000.00 mg/l - 96 h / mortality LC50 - *Lepomis macrochirus* (Bluegill) - 15,400 mg/l - 96 h

Toxicity to daphnia and other aquatic invertebrates - EC50 - *Daphnia magna* (Water flea) - 24,500.00 mg/l - 48 h / EC100 - *Daphnia magna* (Water flea) - 10,000.00 mg/l - 24 h

Toxicity to algae Growth inhibition EC50 - *Scenedesmus capricornutum* (fresh water algae) - 22,000 mg/l - 96 h

Persistence and Degradability: When released into the soil, this material is expected to readily biodegrade. When released into water, this material is expected to readily biodegrade. When released into the air, this material is expected to be readily degraded by reaction with photochemically produced hydroxyl radicals.

Bioaccumulative Potential:

Bioaccumulation *Cyprinus carpio* (Carp) - 72 d at 20C

Bioconcentration factor (BCF): 1.0

Mobility in Soil: When released into the soil, this material is expected to quickly evaporate. When released into the soil, this material is expected to leach into groundwater.

Other adverse effects: When released into the water, this material is expected to have a half-life between 1 and 10 days. When released into the air, this material is expected to exist in the aerosol phase with a short half-life. When released into air, this material is expected to have a half-life between 10 and 30 days. When released into the air, this material is expected to be readily removed from the atmosphere by wet deposition.

13. Disposal Considerations

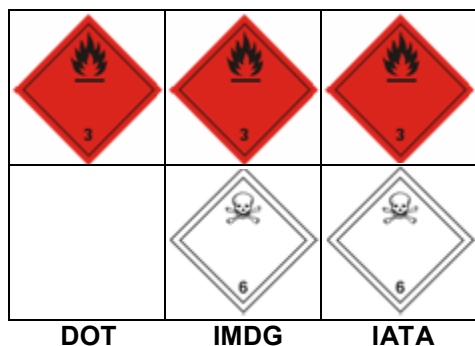
Whatever cannot be saved for recovery or recycling should be handled as hazardous waste and sent to a RCRA approved incinerator or disposed in a RCRA approved waste facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

UN Number: UN1230

UN Proper Shipping Name: METHANOL

Packing Group: II



Land Transport ADR/RID and GGVS/GGVE (Cross Border / Domestic)

Transport Hazard Class(es): 3

Maritime Transport IMDG/GGVSea
Transport Hazard Class(es): 3, 6.1
Marine Pollutant: No

Air Transport ICAO-TI and IATA-DGR
Transport Hazard Class(es): 3, 6.1

Transport in Bulk according to Annex II of MARPOL 73/78 and the IBC Code

Special Precautions for User: No additional information

15. Regulatory Information

Chemical Inventory Status – Part 1

Ingredient	TSCA	EC	Japan	Australia
Methyl Alcohol (67-56-1)	Yes	Yes	Yes	Yes

Chemical Inventory Status – Part 2

Ingredient	Korea	Canada		Phil.
		DSL	NDSL	
Methyl Alcohol (67-56-1)	Yes	Yes	No	Yes

Federal, State & International Regulations - Part 1

Ingredient	SARA 302		SARA 313	
	RQ	TPQ	List Chemical	Catg.
Methyl Alcohol (67-56-1)	No	No	Yes	No

Federal, State & International Regulations - Part 2

Ingredient	RCRA		TSCA
	CERCLA	261.33	8(d)
Methyl Alcohol (67-56-1)	5000	U154	No

Chemical Weapons Convention: No		TSCA 12(b): No		CDTA: No	
SARA 311/312:	Acute: Yes	Chronic: Yes	Fire: Yes		Pressure: No
Reactivity: No		Pure / Liquid			

Australian Hazchem Code: 2PE
Poison Schedule: S6

16. Other Information

Revision 04/01/13 – deleted Transport Class 6.1 for Domestic Shipments
Revision 01/01/13 – GHS Compliant

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