



Safety Data Sheet
Methanol

SECTION 1: PRODUCT AND COMPANY INFORMATION

Manufacturer Dennison Lubricants Inc., 111 Rhode Island Road, Lakeville, MA 02347 – www.denlube.com
1-800-564-5142 Toll Free – 1-508-946-0500 Phone – 1-508-946-3400 Fax - info@denlube.com
Trade Name Methanol
Chemical Family: Fuel, Solvent
Product ID Methanol

24-Hour Emergency Phone Number: CHEMTREC 1-800-565-5142

SECTION 2: HAZARD IDENTIFICATION

Emergency Overview Appearance: Liquid, colourless

WARNING! FLAMMABLE LIQUID AND VAPOR. MAY AFFECT THE CENTRAL NERVOUS SYSTEM CAUSING DIZZINESS, HEADACHE OR NAUSEA. HARMFUL IF SWALLOWED. MAY CAUSE BLINDNESS. PROLONGED OR REPEATED CONTACT MAY DRY THE SKIN AND CAUSE IRRITATION AND BURNS. MAY BE HARMFUL IF INHALED.

Potential health effects

Exposure routes: Inhalation, skin absorption, skin contact, eye contact, ingestion

Eye Contact: May cause mild eye irritation. Symptoms include stinging, tearing, and redness.

Skin Contact: May cause mild skin irritation. Symptoms may include redness and burning of skin. Prolonged or repeated contact may dry the skin. Symptoms may include redness, burning, and drying and cracking of the skin, skin burns, and other skin damage.

Ingestion: Swallowing this material may be harmful.

Inhalation: Breathing of vapor or mist is possible. It is possible to breathe this material under certain conditions of handling and use (for example, during heating, spraying or stirring). Breathing small amounts of this material during normal handling is not likely to cause harmful effects. Breathing large amounts may be harmful.

Aggravated Medical Condition: Preexisting disorders of the following organs may be aggravated by exposure to this material: skin, lung, liver, kidney, pancreas, heart, central nervous system. Exposure to this material may aggravate any preexisting condition sensitive to a decrease in available oxygen, such as chronic lung disease, coronary artery disease or anemias.

Symptoms: Signs and symptoms of exposure to this material through breathing, swallowing, and/or passage of the material through the skin may include: stomach or intestinal upset (nausea, vomiting, diarrhea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), muscle cramps, pain in the abdomen and lower back, blurred vision, shortness of breath, cyanosis (causes blue coloring of the skin and nails from lack of oxygen), visual impairment (including blindness), coma.

Target Organs: Exposure to lethal concentrations of methanol has been shown to cause damage to organs including the liver, kidneys, pancreas, heart, lungs and brain. Although this rarely occurs, survivors of severe intoxication may suffer from permanent neurological damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in laboratory animals: liver abnormalities, central nervous system damage. Overexposure to this material (or its components) has been suggested as a cause of the following effects in humans: visual impairment.

Carcinogenicity: This material is not listed as a carcinogen by the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), or the Occupational Safety and Health Administration (OSHA).

Reproductive Hazard: Methanol has caused birth defects in laboratory animals, but only when inhaled at extremely high vapor concentrations. The relevance of this finding to humans is uncertain.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Component	CAS Number	Percentage%(w/w)
Methanol	67-56-1	90-100%

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SECTION 4: FIRST AID MEASURES

- Skin Contact** Remove contaminated clothing. Wash exposed area with soap and water. If symptoms persist, seek medical attention. Launder clothing before reuse.
- Eye Contact** If symptoms develop, move individual away from exposure and into fresh air. Flush eyes gently with water while holding eyelids apart. If symptoms persist or there is any visual difficulty, seek medical attention.
- Inhalation** If symptoms develop, immediately move individual away from exposure and into fresh air. Seek immediate medical attention; keep person warm and quiet. If person is not breathing, begin artificial respiration. If breathing is difficult, administer oxygen.
- Ingestion** Seek medical attention. If individual is drowsy or unconscious, do not give anything by mouth; place individual on the left side with the head down. Contact a physician, medical facility, or poison control center for advice about whether to induce vomiting. If possible, do not leave individual unattended.

Notes to Physician

Hazards This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated to symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by hemodialysis.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical, Carbon dioxide (CO₂), Water spray

Hazardous combustion products

Carbon dioxide and carbon monoxide

Precautions for Firefighters

Material is volatile and readily gives off vapors which may travel along the ground or be moved by ventilation and ignited by pilot lights, flames, sparks, heaters, smoking, electric motors, static discharge or other ignition sources at locations near the material hanging point. Never use welding or cutting torch on or near drum (even empty) because product (even just residue) can ignite explosively. Wear full firefighting turn-out gear (full Bunker gear), and respiratory protection (SCBA). Water may be ineffective for extinguishment unless used under favorable conditions by experienced fire fighters. Use water spray to cool fire exposed containers and structures until fire is out if it can be done with minimal risk. Avoid spreading burning material with water used for cooling purposes.

NFPA Flammable and Combustible Liquids Classification

Flammable Liquid Class IB

SECTION 6: ACCIDENTAL RELEASE MEASURES

Refer to Section 8 - Exposure Control and Personal Protection

Environmental precautions

Prevent spreading over a wide area (e.g. by containment or oil barriers). Do not let product enter drains. Do not flush into surface water or sanitary sewer system. Local authorities should be advised if significant spillages cannot be contained.

Methods for cleaning up

Contain spillage, and then collect with non-combustible absorbent material, (e.g. sand, earth, diatomaceous earth, vermiculite) and place in container for disposal according to local / national regulations (see section 13)

Other information

Comply with all applicable federal, state, and local regulations. Suppress (knock down) gases/vapors/mists with a water spray jet.

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SECTION 7: HANDLING AND STORAGE

Refer to Section 8: Exposure Control and Personal Protection

General Handling Information

Containers of this material may be hazardous when emptied. Since emptied containers retain product residues (vapor, liquid, and/or solid), all hazard precautions given in the data sheet must be observed. Static ignition hazard can result from handling and use. Electrically bond and ground all containers, personnel and equipment before transfer or use of material. Special precautions may be necessary to dissipate static electricity for non-conductive containers. Use proper bonding and grounding during product transfer as described in National Fire Protection Association document NFPA 77.

Storage

Store in a cool, dry, ventilated area, away from incompatible substances.

SECTION 8: EXPOSURE CONTROL AND PERSONAL PROTECTION

Component Methanol

Exposure Guidelines:

ACGIH	8-hour, time-weighted average	200 ppm
ACGIH	Short-term exposure limit	250 ppm
NIOSH	Time-weighted average concentration For up to a 10 hour workday during A 40 hour workweek	200 ppm
NIOSH	Time-weighted average concentration For up to a 10 hour workday during A 40 hour workweek	260 mg/m ³
NIOSH	STEL -15 minute TWA exposure that Should not be exceeded at any time During a workday	250 ppm
NIOSH	STEL -15 minute TWA exposure that Should not be exceeded at any time During a workday	325 mg/m ³
OSHA	8 hour time weighted average	200 ppm
OSHA	8 hour time weighted average	260 mg/m ³
OSHA	Short-term exposure limit	250 ppm
OSHA	Short-term exposure limit	325 mg/m ³

Engineering Controls

Provide sufficient mechanical (general and/or local exhaust) ventilation to maintain exposure below exposure guidelines (if applicable) or below levels that cause known, suspected or apparent adverse effects.

Eye and Face Protection

Not required under normal conditions of use. Wear chemical splash goggles and face shield when there is potential for exposure of the eyes or face to liquid, vapor or mist.

Skin Protection

Wear normal work clothing including long pants, long-sleeved shirts and foot covering to prevent direct contact of the product with the skin. Launder clothing before reuse. If skin irritation develops, contact your facility health and safety professional or your local safety equipment supplier to determine the proper personal protective equipment for your use. Wear resistant gloves (consult your safety equipment supplier). Natural Rubber.

Respiratory Protection

A NIOSH-approved air-purifying respirator with an appropriate cartridge and/or filter may be permissible under certain circumstances where airborne concentrations are expected to exceed exposure limits (if applicable) or if overexposure has otherwise been determined. Pro

Other Protective Equipment

When using, do not eat, drink, or smoke.

Methanol**SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES****General Information:****Physical State**

Appearance: Liquid
 Color: Colorless, clear
 Odor: mild, characteristic

Important Health, Safety and Environment Info

Boiling Point/Range: \approx 148.5°F/64.7°C (minimum)

Flash Point : 52°F/11°C

Auto Ignition Temp: 867°F/464°C

Lower Flammability Limit (Vol. %): 6%(V)

Upper Flammability Limit (Vol. %): 36.5%(V)

Vapor Pressure: 12.8 kPa @ 68°F

Vapor Density (Air= 1) : 1.105 @ 59°F

Freezing Point/Melting Point: \approx -144°F/-97.8°C

Solubility (Water): 100%

Specific Gravity: 0.791(6.59 lbs./gal.)

Evaporation Rate (Butyl Acetate=1): 4.1

Viscosity: Not Available

pH (as is): Not applicable

Other Information

Vol. % Volatiles: Not Available

Volatility: Not Available

Note: Physical Data is typical values based on material tested, but may vary based on composition. Values should not be accepted as guaranteed for every lot or as specifications for this product.

SECTION 10: STABILITY AND REACTIVITY**Reactivity**

Material is stable under normal conditions.

Stability/Incompatibility/ Conditions to Avoid

Heat, flames and sparks. Strong oxidizing agents, strong mineral acids, strong organic acids, strong bases, aluminum, sodium, peroxides, Lead, Zinc

Hazardous Reactions/Decomposition Products

Carbon dioxide and carbon monoxide, formaldehyde-like

Hazardous Polymerization

Will not occur.

SECTION 11: TOXICOLOGICAL INFORMATION**Acute Toxicity Estimate:**

Not classified

Likely Routes of Exposure

Eyes and skin contact; inhalation of incidental mists or vapors; ingestion.

Acute Effects

May cause mild skin irritation. Ingestion is likely to be harmful or have adverse effects.

Chronic Effects

Prolonged exposure to liquid may cause a mild irritation.

Acute inhalation toxicity:

LC 50: 128.2 mg/l Exposure time: 4 hours Species: rat

LC 50: 87.6 mg/l Exposure time: 6 hours Species: rat

SECTION 12: ECOLOGICAL INFORMATION**Biodegradability:**

Methanol aerobic 72% Remarks: Readily biodegradable

Bioaccumulation:

Methanol Species: Carp Exposure time: 72 days Temperature: 20°C Concentration: 5mg/l
 Bioconcentration factor (BCF): 1.0

Toxicity to fish

Methanol LC50: 15,400 mg/l Exposure time: 96 hours Species: Bluegill sunfish

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Toxicity to daphnia and other aquatic invertebrates

Methanol EC50: 10,000 mg/l Exposure time: 48 hours Species: Daphnia

Toxicity to algae

Methanol EC50: 22,000: mg/l Exposure time 96 hours Species: fresh water algae
Test Type: Growth inhibition

Toxicity to bacteria

Methanol No data available

SECTION 13: DISPOSAL CONSIDERATION

Waste Disposal Recommendations:

Dispose of in accordance with all applicable local, state and federal regulations. For assistance with your waste management needs – including disposal, recycling and waste stream reduction.

SECTION 14: TRANSPORT INFORMATION

DOT PROPER SHIPPING NAME: Methanol
DOT CLASS: 3, packing group II
DOT ID NUMBER: UN 1230
TDG CLASSIFICATION: 3 (8)
Transport Canada Subsidiary Hazard: (6.1)

SECTION 15: REGULATORY INFORMATION

California Prop. 65

WARNING! This product contains a chemical known to the state of California to cause birth defects or other reproductive harm.

SARA Hazard Classification

SARA 311/312 Classification

Methanol 20297 Fire Hazard
Acute Health Hazard
Chronic Health Hazard

New Jersey RTK Label Information

Methanol 67-56-1

Pennsylvania RTK Label Information

Methanol 67-56-1

Notification Status

United States TSCA Inventory y(positive listing)
Canadian Domestic Substances List (DSL) y(positive listing)

Reportable quantity

US. EPA CERCLA Hazardous Substances (40 CFR 302) 5000 lbs

	HMIS	NFPA
Health	2*	2
Flammability	3	3
Physical hazards	0	
Instability		0
Specific Hazard	--	--

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SECTION 16: OTHER INFORMATION

The information accumulated is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made become available subsequently to the date hereof, we do not assume any responsibility for the results of its use. Recipients are advised to confirm in advance of need that the information is current, applicable, and suitable to their circumstances.

Notice Dennison Lubricants Inc. believes that the information given herein is accurate. Final determination of suitability of any material is the sole responsibility of the user.