



**UNIVAR**

**Univar USA Inc.  
6100 Carillon Point  
Kirkland, WA 98033  
(425) 889-3400**

**For Emergency Assistance involving chemicals call - CHEMTREC (800) 424-9300**

---

---

The Version Date for this MSDS is : 08/03/2004

\*\*\*\*\*  
PRODUCT IDENTIFICATION  
\*\*\*\*\*

PRODUCT NAME:           METHANOL  
MSDS#:                   EZ64835  
DATE ISSUED:            09/30/2003  
SUPERSEDES:            NEW  
ISSUED BY:               009292

MATERIAL SAFETY DATA SHEET

1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name                                   Methanol

Distributed by:  
Univar USA Inc.  
6100 Carillon Point  
Kirkland, WA 98033  
425-889-3400

Chemical Name                                methanol  
Synonym(s)                                    982893  
Molecular Formula                            CH4O  
Molecular Weight                             32.04  
Product Use                                   solvent  
OSHA Status                                   hazardous

For emergency transportation information, call CHEMTREC at 800-424-9300

2. COMPOSITION INFORMATION ON INGREDIENTS

(Typical composition is given, and it may vary. A certificate of analysis can be provided, if available.)

Weight %	Component	CAS Registry No.
100%	methanol	67-56-1

### 3. HAZARDS IDENTIFICATION

#### DANGER!

FLAMMABLE LIQUID AND VAPOR  
MAY BE FATAL OR CAUSE BLINDNESS IF SWALLOWED  
CANNOT BE MADE NONPOISONOUS - VAPOR HARMFUL  
HARMFUL IF ABSORBED THROUGH SKIN

HMIS(R) Hazard Ratings: Health - 2\*, Flammability -3, Chemical Reactivity - 0

HMIS(R) rating involves data interpretations that may vary from company to company. They are intended only for rapid, general identification of the magnitude of the specific hazard. To deal adequately with the safe handling of this material, all the information contained in this MSDS must be considered.

### 4. FIRST-AID MEASURES

#### Inhalation:

Move to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician or poison control center immediately.

#### Eyes:

Immediately flush with plenty of water for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention.

#### Skin:

Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Call a physician or poison control center immediately. Wash contaminated clothing before reuse. Destroy or thoroughly clean contaminated shoes.

#### Ingestion:

Call a physician or poison control center immediately. Only induce vomiting at the instruction of medical personnel. Never give anything by mouth to an unconscious person.

Note to Physicians: Symptoms of poisoning may not appear for several hours. Keep under medical supervision for at least 48 hours.

### 5. FIRE FIGHTING MEASURES

#### Extinguishing Media:

Water spray, dry chemical, carbon dioxide, alcohol foam

#### Special Fire-Fighting Procedures:

Wear self-contained breathing apparatus and protective clothing.  
Use water spray to keep fire-exposed containers cool. Water may be ineffective in fighting the fire.

#### Hazardous Combustion Products:

Carbon dioxide, carbon monoxide

#### Unusual Fire and Explosion Hazards:

Vapors may cause a flash fire or ignite explosively. Vapors may travel considerable distance to a source of ignition and flash back. Prevent buildup

of vapors or gases to explosive concentrations.

**Sensitivity to Static Discharge:**

Material is unlikely to accumulate a static charge which could act as an ignition source.

**6. ACCIDENTAL RELEASE MEASURES**

Wear appropriate personal protective equipment. Eliminate all ignition sources. Absorb spill with vermiculite or other inert material, then place in a container for chemical waste.

**For Large Spills:**

Use water spray to disperse vapors and dilute spill to a nonflammable mixture.

Prevent runoff from entering drains, sewers, or streams.

**7. HANDLING AND STORAGE**

**Personal Precautionary Measures:**

Avoid breathing mist or vapor. Avoid contact with eyes, skin, and clothing. Do not taste or swallow. Use only with adequate ventilation. Wash thoroughly after handling.

**Prevention of Fire and Explosion:**

Keep away from heat, sparks, and flame. Keep from contact with oxidizing materials. Use only with adequate ventilation. Comply with all national, state, and local codes pertaining to the storage, handling, dispensing, and disposal of flammable liquids.

**Storage:**

Keep container tightly closed and in a well-ventilated place.

**8. EXPOSURE CONTROLS/PERSONAL PROTECTION**

Country specific exposure limits have not been established or are not applicable unless listed below.

**METHANOL**

US. ACGIH Threshold Limit Values

Time Weighted Average (TWA): 200 ppm,

US. ACGIH Threshold Limit Values

Short Term Exposure Limit (STEL): 250 ppm,

US. ACGIH Threshold Limit Values

Skin designation: Can be absorbed through the skin.

**METHYL ALCOHOL**

US. NIOSH: Pocket Guide to Chemical Hazards

Recommended exposure limit (REL): 200 ppm, 260 mg/m<sup>3</sup>

US. NIOSH: Pocket Guide to Chemical Hazards

Short Term Exposure Limit (STEL): 250 ppm, 325 mg/m<sup>3</sup>

US. NIOSH: Pocket Guide to Chemical Hazards

Skin designation: Can be absorbed through the skin.

**METHYL ALCOHOL; METHANOL**

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Time Weighted Average (TWA) Permissible Exposure Limit (PEL): 200 ppm, 260 mg/m<sup>3</sup>

US. California Code of Regulations, Title 8, Section 5155. Airborne Contaminants

Ceiling Limit Value: 1,000 ppm,  
US. California Code of Regulations, Title 8, Section 5155. Airborne  
Contaminants

Short Term Exposure Limit (STEL): 250 ppm, 325 mg/m<sup>3</sup>  
US. California Code of Regulations, Title 8, Section 5155. Airborne  
Contaminants

Skin designation: Can be absorbed through the skin.

US. OSHA Table Z-1 Limits for Air Contaminants (29 CFR 1910.1000)  
PEL: 200 ppm, 260 mg/m<sup>3</sup>

#### Ventilation:

Good general ventilation (typically 10 air changes per hour) should be used. Ventilation rates should be matched to conditions. If applicable, use process enclosures, local exhaust ventilation, or other engineering controls to maintain airborne levels below recommended exposure limits. If exposure limits have not been established, maintain airborne levels to an acceptable level.

#### Respiratory Protection:

If engineering controls do not maintain airborne concentrations below recommended exposure limits (where applicable) or to an acceptable level (in countries where exposure limits have not been established), an approved respirator must be worn. In the United States of America, if respirators are used, a program should be instituted to assure compliance with OSHA Standard 63 FR 1152, January 8, 1998. Respirator type: full-face positive-pressure air-supplied

#### Eye Protection:

Wear safety glasses with side shields (or goggles). Wear a full-face respirator, if needed.

#### Skin Protection:

Wear chemical-resistant gloves, footwear, and protective clothing appropriate for the risk of exposure. Contact health and safety professional or manufacturer for specific information.

#### Recommended Decontamination Facilities:

Eye bath, washing facilities, safety shower

### 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical Form:	Liquid
Color:	Colorless
Odor:	Sweet, alcohol
Odor Threshold:	100 ppm
Specific Gravity:	0.79 (20 C)
Vapor Pressure:	21 C; 133 mbar
Vapor Density:	1.1
Freezing Point:	-98 C
Boiling Point:	65 C
Evaporation Rate:	2.6 (n-butyl acetate = 1 Evaporation Rate: 0.2 (diethyl ether = 1 )
Viscosity:	0.58 mPa.s (20 C) ,
Solubility in Water:	Complete
pH:	Not applicable
Octanol/Water Partition Coefficient:	P: 0.17; log P: -0.77
Flash Point:	10 C (Tag closed cup)
Lower Flammable Limit:	6.61 %(V)
Upper Flammable Limit:	36.5 %(V)

Autoignition Temperature: 446 C (ASTM D2155)  
Thermal Decomposition Temperature: (DTA) No exotherm to boiling

#### 10. STABILITY AND REACTIVITY

Stability:  
Stable.

Incompatibility:  
Material reacts with strong acids, strong bases. Material reacts violently with strong oxidizing agents

Hazardous Polymerization:  
Will not occur.

#### 11. TOXICOLOGICAL INFORMATION

General:  
Prolonged and repeated exposure to high vapor concentrations, skin absorption or ingestion of methanol may result in visual disturbances, metabolic acidosis, headache, giddiness, nausea, insomnia, gastric disturbance, dizziness, and slow breathing. There have been severe cases reported of blindness, coma and death due to the ingestion of methanol. Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

Oral LD-50:(rat)	6.2 g/kg
Inhalation LC-50: (rat)	8 h: > 22500 ppm
Dermal LD-50: ( rabbit)	15.8 g/kg
Skin Irritation (guinea pig)	moderate
Eye Irritation (rabbit)	slight

#### 12. ECOLOGICAL INFORMATION

Acute toxicity data, if available, are listed below. Additional toxicity data may be available on request.

##### Oxygen Demand Data:

BOD-5: 0.76 - 1.12 g/g  
BOD-20: 1.26 g/g  
COD: 1.05 - 1.5 g/g

##### Acute Aquatic Effects Data:

96 h LC-50 (fathead minnow): > 10000 microliter(s)/l NOEC:  
10000 microliter(s)A  
96 h LC-50 (sideswimmer): > 100 microliter(s)/l NOEC: 100 microliter(s)/l  
24 h EC-50 (daphnid): > 10000 mg/l  
96 h LC-50 (daphnid): > 1000 microliter(s)/l NOEC: 100 microliter(s)/l  
96 h LC-50 (ramshorn snail): > 100 microliter(s)A NOEC: 100 microliter(s)/l  
96 h LC-50 (aquatic earthworm): > 100 microliter(s)A NOEC: 100 microliter(s)A  
96 h LC-50 (pill bug): > 100 microliter(s)A NOEC: 100 microliter(s)/l  
96 h LC-50 (flatworm): > 100 microliter(s)/l NOEC: 100 microliter(s)/l

#### 13. DISPOSAL CONSIDERATIONS

Discharge, treatment, or disposal may be subject to national, state, or local laws. Mix with compatible chemical which is less flammable and incinerate. Since emptied containers retain product residue, follow label warnings even after container is emptied. Residual vapors may explode on

ignition; do not cut, drill, grind, or weld on or near this container.

#### 14. TRANSPORT INFORMATION

Marine pollutant components: None unless listed below

Reportable Quantity: 2,270 kg  
DOT (USA): Class 3 Packing group II  
ICAO Status: Class 3 Packing group II  
Subsidiary Risk Class 6.1  
IMDG Status: Class 3 Packing group II  
Subsidiary Risk Class 6.1

#### 15. REGULATORY INFORMATION

WHMIS (Canada) Status: controlled  
WHMIS (Canada) Hazard Classification: B/2, D/1/B

SARA 311-312 Hazard Classification(s):  
immediate (acute) health hazard  
delayed (chronic) health hazard  
fire hazard

SARA 313: None, unless listed below

#### METHANOL

Carcinogenicity Classification (components present at 0.1% or more):  
none, unless listed below

TSCA (US Toxic Substances Control Act): This product is listed on the TSCA inventory. Any impurities present in this product are exempt from listing.

DSL (Canadian Domestic Substances List) and CEPA (Canadian Environmental Protection Act): This product is listed on the DSL or otherwise complies with CEPA new substance notification requirements.

EINECS (European Inventory of Existing Commercial Chemical Substances):  
This product is listed on EINECS.

EINECS Number: 200-659-6

AICS / NICNAS (Australian Inventory of Chemical Substances and National Industrial Chemicals Notification and Assessment Scheme): This product is listed on AICS or otherwise complies with NICNAS.

MITI (Japanese Handbook of Existing and New Chemical Substances): This product is listed in the Handbook or has been approved in Japan by new substance notification.

ECL (Korean Toxic Substances Control Act): This product is listed on the Korean inventory or otherwise complies with the Korean Toxic Substances Control Act.

#### 16. OTHER INFORMATION

##### For Additional Information:

Contact: MSDS Coordinator - Univar USA

During business hours, Pacific Time - (425) 889-3400

**NOTICE**

Univar USA expressly disclaims all express or implied warranties of merchantability and fitness for a particular purpose with respect to the product or information provided herein, and shall under no circumstances be liable for incidental or consequential damages.

Do not use ingredient information and/or ingredient percentages in this MSDS as a product specification. For product specification information refer to a Product Specification Sheet and/or a Certificate of Analysis. These can be obtained from your local Univar USA Sales Office.

All information appearing herein is based upon data obtained from the manufacturer and/or recognized technical sources. While the information is believed to be accurate, Univar USA makes no representations as to its accuracy or sufficiency. Conditions of use are beyond Univar USA's control. Therefore, users are responsible to verify this data under their own operating conditions to determine whether the product is suitable for their particular purposes, and they assume all risks of their use, handling, and disposal of the product or from the publication or use of, or reliance upon, information contained herein. This information relates only to the product designated herein and does not relate to its use in combination with any other material or in any other process.

END OF MSDS .