

SECTION 1: Identification

1.1. Identification

Product form	: Substance
Trade name	: Methanol, $\geq 99.85\%$, EM Grade
Chemical name	: methanol
CAS-No.	: 67-56-1
Product code	: 08032
Formula	: CH ₄ O

1.2. Recommended use and restrictions on use

Recommended use	: Use as laboratory reagent, Manufacture of substances
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1.3. Supplier

Supplier

Polysciences
400 Valley Road
Warrington, PA 18976 - United States
T +1 215 343 6484 - F +1 215 343 0214
info@polysciences.com - www.polysciences.com

1.4. Emergency telephone number

Emergency number	: 24-hour emergency phone number ChemTel 1-800-255-3924
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SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

Flammable liquids Category 2	Highly flammable liquid and vapor
Acute toxicity (oral) Category 3	Toxic if swallowed
Acute toxicity (dermal) Category 3	Toxic in contact with skin
Acute toxicity (inhalation) Category 3	Toxic if inhaled
Specific target organ toxicity (single exposure) Category 1	Causes damage to organs

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US)	: 
Signal word (GHS US)	: Danger
Hazard statements (GHS US)	: Highly flammable liquid and vapor Toxic if swallowed, in contact with skin or if inhaled Causes damage to organs
Precautionary statements (GHS US)	: Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking Keep container tightly closed. Ground/Bond container and receiving equipment. Use explosion-proof electrical/ventilating/lighting equipment. Use only non-sparking tools. Take precautionary measures against static discharge.

2.3. Other hazards which do not result in classification

No additional information available

2.4. Unknown acute toxicity (GHS US)

Not applicable

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SECTION 3: Composition/Information on ingredients

3.1. Substances

Name	Product identifier	%	GHS US classification
Methanol, ≥ 99.85%, EM Grade (Main constituent)	(CAS-No.) 67-56-1	≤ 100	Flam. Liq. 2, H225 Acute Tox. 3 (Oral), H301 Acute Tox. 3 (Dermal), H311 Acute Tox. 3 (Inhalation), H331 STOT SE 1, H370

Full text of hazard classes and H-statements : see section 16

3.2. Mixtures

Not applicable

SECTION 4: First-aid measures

4.1. Description of first aid measures

- First-aid measures general : Call a physician immediately.
- First-aid measures after inhalation : Remove person to fresh air and keep comfortable for breathing. Call a doctor.
- First-aid measures after skin contact : Rinse skin with water/shower. Remove/Take off immediately all contaminated clothing.
- First-aid measures after eye contact : Rinse eyes with water as a precaution.
- First-aid measures after ingestion : Rinse mouth. Call a physician immediately.

4.2. Most important symptoms and effects (acute and delayed)

No additional information available

4.3. Immediate medical attention and special treatment, if necessary

Treat symptomatically.

SECTION 5: Fire-fighting measures

5.1. Suitable (and unsuitable) extinguishing media

- Suitable extinguishing media : Water spray. Dry powder. Foam. Carbon dioxide.

5.2. Specific hazards arising from the chemical

- Fire hazard : Highly flammable liquid and vapor.
- Hazardous decomposition products in case of fire : Toxic fumes may be released.

5.3. Special protective equipment and precautions for fire-fighters

- Protection during firefighting : Do not attempt to take action without suitable protective equipment. Self-contained breathing apparatus. Complete protective clothing.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

- Emergency procedures : Ventilate spillage area. No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Avoid contact with skin, eyes and clothing.

6.1.2. For emergency responders

- Protective equipment : Do not attempt to take action without suitable protective equipment. For further information refer to section 8: "Exposure controls/personal protection".

6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

- Methods for cleaning up : Take up liquid spill into absorbent material. Notify authorities if product enters sewers or public waters.
- Other information : Dispose of materials or solid residues at an authorized site.

6.4. Reference to other sections

For further information refer to section 13.

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SECTION 7: Handling and storage

7.1. Precautions for safe handling

- Precautions for safe handling : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Ground/bond container and receiving equipment. Use only non-sparking tools. Take precautionary measures against static discharge. Flammable vapors may accumulate in the container. Use explosion-proof equipment. Wear personal protective equipment. Do not breathe dust/fume/gas/mist/vapors/spray. Do not get in eyes, on skin, or on clothing. Use only outdoors or in a well-ventilated area.
- Hygiene measures : Wash contaminated clothing before reuse. Do not eat, drink or smoke when using this product. Always wash hands after handling the product.

7.2. Conditions for safe storage, including any incompatibilities

- Technical measures : Ground/bond container and receiving equipment.
- Storage conditions : Store in a well-ventilated place. Keep cool. Keep container tightly closed. Store locked up. Store at room temp.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Methanol, ≥ 99.85%, EM Grade (67-56-1)	
USA - ACGIH - Occupational Exposure Limits	
Local name	Methanol
ACGIH TWA (ppm)	200 ppm
ACGIH STEL (ppm)	250 ppm
Remark (ACGIH)	TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI
Regulatory reference	ACGIH 2020
USA - OSHA - Occupational Exposure Limits	
Local name	Methyl alcohol
OSHA PEL (TWA) (mg/m³)	260 mg/m³
OSHA PEL (TWA) (ppm)	200 ppm
Regulatory reference (US-OSHA)	OSHA Annotated Table Z-1

8.2. Appropriate engineering controls

- Appropriate engineering controls : Ensure good ventilation of the work station.
- Environmental exposure controls : Avoid release to the environment.

8.3. Individual protection measures/Personal protective equipment

Hand protection:

Protective gloves

Eye protection:

Safety glasses

Skin and body protection:

Wear suitable protective clothing

Respiratory protection:

[In case of inadequate ventilation] wear respiratory protection.

Personal protective equipment symbol(s):



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SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state	: Liquid
Color	: No data available
Odor	: No data available
Odor threshold	: No data available
pH	: No data available
Melting point	: Not applicable
Freezing point	: No data available
Boiling point	: No data available
Flash point	: No data available
Relative evaporation rate (butyl acetate=1)	: No data available
Flammability (solid, gas)	: Not applicable.
Vapor pressure	: No data available
Relative vapor density at 20°C	: No data available
Relative density	: No data available
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosion limits	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

Highly flammable liquid and vapor.

10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

No dangerous reactions known under normal conditions of use.

10.4. Conditions to avoid

Avoid contact with hot surfaces. Heat. No flames, no sparks. Eliminate all sources of ignition.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

Under normal conditions of storage and use, hazardous decomposition products should not be produced.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral)	: Toxic if swallowed.
Acute toxicity (dermal)	: Toxic in contact with skin.
Acute toxicity (inhalation)	: Toxic if inhaled.

ATE US (oral)	100 mg/kg body weight
ATE US (dermal)	300 mg/kg body weight
ATE US (gases)	700 ppmV/4h
ATE US (vapors)	3 mg/l/4h

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ATE US (dust, mist)	0.5 mg/l/4h
Skin corrosion/irritation	: Not classified
Serious eye damage/irritation	: Not classified
Respiratory or skin sensitization	: Not classified
Germ cell mutagenicity	: Not classified
Carcinogenicity	: Not classified
Reproductive toxicity	: Not classified
STOT-single exposure	: Causes damage to organs.
STOT-repeated exposure	: Not classified
Aspiration hazard	: Not classified
Viscosity, kinematic	: No data available

SECTION 12: Ecological information

12.1. Toxicity

Ecology - general : The product is not considered harmful to aquatic organisms or to cause long-term adverse effects in the environment.

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Disposal methods

Waste treatment methods : Dispose of contents/container in accordance with licensed collector's sorting instructions.
Additional information : Flammable vapors may accumulate in the container.

SECTION 14: Transport information

Department of Transportation (DOT)

In accordance with DOT

Transport document description : UN1230 Methanol, 3 (6.1), II
UN-No.(DOT) : UN1230
Proper Shipping Name (DOT) : Methanol
Class (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120
Packing group (DOT) : II - Medium Danger
Subsidiary risk (DOT) : 6.1 - Class 6.1 - Poisonous materials 49 CFR 173.132
Hazard labels (DOT) : 3 - Flammable liquid
6.1 - Poison



DOT Packaging Non Bulk (49 CFR 173.xxx) : 202
DOT Packaging Bulk (49 CFR 173.xxx) : 242

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DOT Symbols	: + - Fixes (cannot be altered) proper shipping name, hazard class, and packing group, I - Proper shipping name appropriate for international and domestic transportation
DOT Special Provisions (49 CFR 172.102)	: IB2 - Authorized IBCs: Metal (31A, 31B and 31N); Rigid plastics (31H1 and 31H2); Composite (31HZ1). Additional Requirement: Only liquids with a vapor pressure less than or equal to 110 kPa at 50 C (1.1 bar at 122 F), or 130 kPa at 55 C (1.3 bar at 131 F) are authorized. T7 - 4 178.274(d)(2) Normal..... 178.275(d)(3) TP2 - a. The maximum degree of filling must not exceed the degree of filling determined by the following: (image) Where: tr is the maximum mean bulk temperature during transport, tf is the temperature in degrees celsius of the liquid during filling, and a is the mean coefficient of cubical expansion of the liquid between the mean temperature of the liquid during filling (tf) and the maximum mean bulk temperature during transportation (tr) both in degrees celsius. b. For liquids transported under ambient conditions may be calculated using the formula: (image) Where: d15 and d50 are the densities (in units of mass per unit volume) of the liquid at 15 C (59 F) and 50 C (122 F), respectively.
DOT Packaging Exceptions (49 CFR 173.xxx)	: 150
DOT Quantity Limitations Passenger aircraft/rail (49 CFR 173.27)	: 1 L
DOT Quantity Limitations Cargo aircraft only (49 CFR 175.75)	: 60 L
DOT Vessel Stowage Location	: B - (i) The material may be stowed "on deck" or "under deck" on a cargo vessel and on a passenger vessel carrying a number of passengers limited to not more than the larger of 25 passengers, or one passenger per each 3 m of overall vessel length; and (ii) "On deck only" on passenger vessels in which the number of passengers specified in paragraph (k)(2)(i) of this section is exceeded.
DOT Vessel Stowage Other	: 40 - Stow "clear of living quarters"
Emergency Response Guide (ERG) Number	: 131
Other information	: No supplementary information available.

Transportation of Dangerous Goods

Not applicable

Transport by sea

Transport document description (IMDG)	: UN 1230 METHANOL, 3 (6.1), II (12°C c.c.)
UN-No. (IMDG)	: 1230
Proper Shipping Name (IMDG)	: METHANOL
Class (IMDG)	: 3 - Flammable liquids
Packing group (IMDG)	: II - substances presenting medium danger
Subsidiary hazard (IMDG)	: 6.1 - Toxic substances
Limited quantities (IMDG)	: 1 L

Air transport

Transport document description (IATA)	: UN 1230 Methanol, 3 (6.1), II
UN-No. (IATA)	: 1230
Proper Shipping Name (IATA)	: Methanol
Class (IATA)	: 3 - Flammable Liquids
Packing group (IATA)	: II - Medium danger
Subsidiary hazards (IATA)	: 6.1 - Toxic Substances

SECTION 15: Regulatory information

15.1. US Federal regulations

Methanol, ≥ 99.85%, EM Grade (67-56-1)	
Listed on the United States TSCA (Toxic Substances Control Act) inventory Subject to reporting requirements of United States SARA Section 313 Listed on EPA Hazardous Air Pollutant (HAPS)	
CERCLA RQ	5000 lb

15.2. International regulations

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CANADA

Methanol, ≥ 99.85%, EM Grade (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

National regulations

No additional information available

15.3. US State regulations

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U.S. - California - Proposition 65 - Carcinogens List	No
U.S. - California - Proposition 65 - Developmental Toxicity	Yes
U.S. - California - Proposition 65 - Reproductive Toxicity - Female	No
U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No
Maximum allowable dose level (MADL)	47000 µg/day (inhalation); 23,000 µg/day (oral)
State or local regulations	U.S. - Massachusetts - Right To Know List U.S. - New Jersey - Right to Know Hazardous Substance List

SECTION 16: Other information

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