

Methanol

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations
 Issue date: 5/10/2024 Version: 1.0

SECTION 1: Identification

1.1. Identification

Product form : Substance
 Substance name : Methanol
 CAS-No. : 67-56-1
 Product code : 3326 - all sizes
 Formula : CH4O

1.2. Recommended use and restrictions on use

Use of the substance/mixture : For laboratory and manufacturing use only
 For professional use only
 Restrictions on use : Not for food, drug or household use

1.3. Supplier

Astral Diagnostics
 Ethos Biosciences, Inc.
 2070 Center Square Road
 Logan Township, New Jersey 08085
 United States
 T +1-856-224-0900; +1-800-441-0366 Technical Service; Monday-Friday: 8:00 AM-5:00 PM, Eastern US Time
www.ethosbiosciences.com

1.4. Emergency telephone number

Emergency number : 800-424-9300 CHEMTREC (USA) -- 24 Hours/Day, 7 Days/Week

SECTION 2: Hazard(s) identification

2.1. Classification of the substance or mixture

GHS US classification

| | | |
|---|------|-----------------------------------|
| Flammable liquids Category 2 | H225 | Highly flammable liquid and vapor |
| Acute toxicity (oral) Category 4 | H302 | Harmful if swallowed |
| Acute toxicity (inhalation:dust,mist) Category 2 | H330 | Fatal if inhaled |
| Specific target organ toxicity (single exposure) Category 1 | H370 | Causes damage to organs |

Full text of H statements : see section 16

2.2. GHS Label elements, including precautionary statements

GHS US labeling

Hazard pictograms (GHS US) :



Signal word (GHS US) :

Danger

Hazard statements (GHS US) :

H225 - Highly flammable liquid and vapor
 H302 - Harmful if swallowed
 H330 - Fatal if inhaled
 H370 - Causes damage to organs

Precautionary statements (GHS US) :

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 P233 - Keep container tightly closed.

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P240 - Ground/Bond container and receiving equipment.
P241 - Use explosion-proof electrical/ventilating/lighting equipment.
P242 - Use only non-sparking tools.
P243 - Take precautionary measures against static discharge.
P260 - Do not breathe dust/fume/gas/mist/vapors/spray.
P264 - Wash hands, forearms and face 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 gloves/protective clothing/eye protection/face protection.
P284 - [In case of inadequate ventilation] wear respiratory protection.
P301+P312 - If swallowed: Call a poison center or doctor if you feel unwell.
P303+P361+P353 - If on skin (or hair): Take off immediately all contaminated clothing. Rinse skin with water/shower.
P304+P340 - If inhaled: Remove person to fresh air and keep comfortable for breathing.
P307+P311 - If exposed: Call a poison center/doctor.
P310 - Immediately call a poison center or doctor.
P320 - Specific treatment is urgent (see supplemental first aid instruction on this label).
P321 - Specific treatment (see supplemental first aid instruction on this label).
P330 - Rinse mouth.
P370+P378 - In case of fire: Use media other than water to extinguish.
P403+P233 - Store in a well-ventilated place. Keep container tightly closed.
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to hazardous or special waste collection point, in accordance with local, regional, national and/or international regulation.

2.3. Other hazards which do not result in classification

Other hazards which do not result in classification : STATIC ACCUMULATING FLAMMABLE LIQUID. CAN BECOME ELECTROSTATICALLY CHARGED EVEN IN BONDED AND GROUNDED EQUIPMENT. SPARKS MAY IGNITE LIQUID AND VAPOR MAY CAUSE FLASH FIRE (OR EXPLOSION).

2.4. Unknown acute toxicity (GHS US)

No additional information available

SECTION 3: Composition/Information on ingredients

3.1. Substances

Name : Methanol
CAS-No. : 67-56-1

| Name | Product identifier | Conc. | GHS US classification |
|----------|--------------------|-------|---|
| Methanol | CAS-No.: 67-56-1 | 100 | Flam. Liq. 2, H225 Acute Tox. 4 (Oral), H302 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

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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 physician immediately. 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 poison center/doctor/physician if you feel unwell. |

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

| | |
|-------------------------------------|---|
| Symptoms/effects after inhalation | : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard. |
| Symptoms/effects after skin contact | : None under normal conditions. |
| Symptoms/effects after eye contact | : None under normal conditions. |
| Symptoms/effects after ingestion | : None under normal conditions. |

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. |
| Unsuitable extinguishing media | : Do not use a heavy water stream. |

5.2. Specific hazards arising from the chemical

| | |
|--|--------------------------------------|
| Fire hazard | : Highly flammable liquid and vapor. |
| Explosion hazard | : No direct explosion hazard. |
| Hazardous decomposition products in case of fire | : Toxic fumes may be released. |

5.3. Special protective equipment and precautions for fire-fighters

| | |
|--------------------------------|---|
| Firefighting instructions | : Fight fire from safe distance and protected location. Do not enter fire area without proper protective equipment, including respiratory protection. |
| 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

| | |
|------------------|---|
| General measures | : Stop leak if safe to do so. Notify authorities if product enters sewers or public waters. Absorb spillage to prevent material-damage. |
|------------------|---|

6.1.1. For non-emergency personnel

| | |
|----------------------|--|
| Protective equipment | : Wear recommended personal protective equipment. |
| Emergency procedures | : No open flames, no sparks, and no smoking. Do not breathe dust/fume/gas/mist/vapors/spray. Only qualified personnel equipped with suitable protective equipment may intervene. |

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". |
| Emergency procedures | : Evacuate unnecessary personnel. Stop leak if safe to do so. |

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6.2. Environmental precautions

Avoid release to the environment.

6.3. Methods and material for containment and cleaning up

| | |
|-------------------------|---|
| For containment | : Absorb spilled material with sand or earth. Contain any spills with dikes or absorbents to prevent migration and entry into sewers or streams. Stop leak, if possible without risk. |
| 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.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

| | |
|-----------------------------------|---|
| Additional hazards when processed | : Not expected to present a significant hazard under anticipated conditions of normal use. |
| 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. Use only outdoors or in a well-ventilated area. |
| Hygiene measures | : 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. |
| Packaging materials | : Store always product in container of same material as original container. |

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

| Methanol (67-56-1) | |
|---|--|
| USA - ACGIH - Occupational Exposure Limits | |
| Local name | Methanol |
| ACGIH OEL TWA | 200 ppm |
| ACGIH OEL STEL | 250 ppm |
| Remark (ACGIH) | TLV® Basis: Headache; eye dam; dizziness; nausea. Notations: Skin; BEI |
| Regulatory reference | ACGIH 2024 |
| USA - ACGIH - Biological Exposure Indices | |
| Local name | Methanol |
| BEI | 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns |
| Regulatory reference | ACGIH 2024 |
| USA - OSHA - Occupational Exposure Limits | |
| Local name | Methyl alcohol |

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| Methanol (67-56-1) | |
|--------------------------------|----------------------------------|
| OSHA PEL TWA | 260 mg/m ³ 200 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

Personal protective equipment:

Wear recommended 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):



SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

| | |
|---|--|
| Physical state | : Liquid |
| Appearance | : Liquid. |
| Color | : Colourless |
| Odor | : Characteristic odour Mild odour Pleasant odour Alcohol odour Commercial/unpurified substance: irritating/pungent odour |
| Odor threshold | : 100 – 1500 ppm Source: ACGIH DOCUMENTATION |
| pH | : No data available in the literature |
| Melting point | : -98 °C |
| Freezing point | : No data available |
| Boiling point | : 65 °C (1013 hPa) |
| Critical temperature | : 240 °C |
| Critical pressure | : 79547 hPa |
| Flash point | : 10 °C (Closed cup, 1013 hPa, EU Method A.9: Flash-Point) |
| Relative evaporation rate (butyl acetate=1) | : 4.1 |
| Relative evaporation rate (ether=1) | : 6.3 |
| Flammability (solid, gas) | : No data available |
| Vapor pressure | : 128 hPa (20 °C) |
| Vapor pressure at 50°C | : 552 hPa |

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| | |
|---|---|
| Relative vapor density at 20°C | : 1.1 |
| Particle size | : Not applicable (liquid) |
| Relative density | : 0.79 – 0.8 (20 °C) |
| Relative density of saturated gas/air mixture | : 1 |
| Density | : 790 – 800 kg/m ³ (20 °C) |
| Molecular mass | : 32.04 g/mol |
| Solubility | : Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform. Water: ≥ 100 g/100ml Ethanol: complete Ether: complete Acetone: complete |
| Partition coefficient n-octanol/water (Log Pow) | : -0.77 (Experimental value) |
| Auto-ignition temperature | : 455 °C (1013 hPa, DIN 51794: Self-ignition temperature, T1) |
| Decomposition temperature | : No data available in the literature |
| Viscosity, kinematic | : No data available |
| Viscosity, dynamic | : 0.544 – 0.59 mPa·s (25 °C) |
| Explosion limits | : 5.5 – 36.5 vol % Lower explosion limit: 5.5 vol % Upper explosion limit: 36.5 vol % |
| Explosive properties | : No data available |
| Oxidizing properties | : No data available |

| Methanol | |
|---------------------------|---|
| Boiling point | 65 °C (1013 hPa) |
| Flash point | 10 °C (Closed cup, 1013 hPa, EU Method A.9: Flash-Point) |
| Auto-ignition temperature | 455 °C (1013 hPa, DIN 51794: Self-ignition temperature, T1) |
| Vapor pressure | 128 hPa (20 °C) |
| Vapor pressure at 50°C | 552 hPa |

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.

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SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity (oral) : Harmful if swallowed.
Acute toxicity (dermal) : Not classified
Acute toxicity (inhalation) : Inhalation:dust,mist: Fatal if inhaled.

| Methanol (67-56-1) | |
|---------------------|------------------------|
| ATE US (oral) | 1187 mg/kg body weight |
| ATE US (dust, mist) | 0.5 mg/l/4h |

| Methanol (67-56-1) | |
|-----------------------|---|
| LD50 oral rat | 1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Experimental value, 15-35 % aqueous solution, Oral, 7 day(s)) |
| LD50 dermal rabbit | 17100 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal) |
| LC50 Inhalation - Rat | 128.2 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapours), 14 day(s)) |
| ATE US (oral) | 1187 mg/kg body weight |
| ATE US (dermal) | 17100 mg/kg body weight |
| ATE US (gases) | 700 ppmV/4h |
| ATE US (vapors) | 3 mg/l/4h |
| ATE US (dust, mist) | 0.5 mg/l/4h |

Skin corrosion/irritation : Not classified
pH: No data available in the literature

| Methanol (67-56-1) | |
|--------------------|-------------------------------------|
| pH | No data available in the literature |

Serious eye damage/irritation : Not classified
pH: No data available in the literature

| Methanol (67-56-1) | |
|--------------------|-------------------------------------|
| pH | No data available in the literature |

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.

| Methanol (67-56-1) | |
|----------------------|--------------------------|
| STOT-single exposure | Causes damage to organs. |

STOT-repeated exposure : Not classified
Aspiration hazard : Not classified
Viscosity, kinematic : No data available
Symptoms/effects after inhalation : Although no appropriate human or animal health effects data are known to exist, this material is expected to be an inhalation hazard.
Symptoms/effects after skin contact : None under normal conditions.
Symptoms/effects after eye contact : None under normal conditions.
Symptoms/effects after ingestion : None under normal conditions.

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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.

| Methanol (67-56-1) | |
|----------------------|--|
| LC50 - Fish [1] | 15400 mg/l (EPA 660/3 - 75/009, 96 h, Lepomis macrochirus, Flow-through system, Fresh water, Experimental value, Lethal) |
| EC50 - Crustacea [1] | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |
| EC50 96h - Algae [1] | 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value, Growth rate) |
| NOEC (chronic) | 208 mg/l Test organisms (species): Daphnia magna Duration: '21 d' |
| NOEC chronic fish | 446.7 mg/l Test organisms (species): Pimephales promelas Duration: '28 d' |

12.2. Persistence and degradability

| Methanol (67-56-1) | |
|---------------------------------|--|
| Persistence and degradability | Not rapidly degradable |
| Methanol (67-56-1) | |
| Persistence and degradability | Readily biodegradable in the soil, Readily biodegradable in water. |
| Biochemical oxygen demand (BOD) | 0.6 – 1.12 g O ₂ /g substance |
| Chemical oxygen demand (COD) | 1.42 g O ₂ /g substance |
| ThOD | 1.5 g O ₂ /g substance |

12.3. Bioaccumulative potential

| Methanol (67-56-1) | |
|---|---|
| Partition coefficient n-octanol/water (Log Pow) | -0.77 (Experimental value) |
| Methanol (67-56-1) | |
| BCF - Fish [1] | 1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Partition coefficient n-octanol/water (Log Pow) | -0.77 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

12.4. Mobility in soil

| Methanol (67-56-1) | |
|--|---|
| Mobility in soil | 2.75 Source: HSDB |
| Surface tension | No data available in the literature |
| Organic Carbon Normalized Adsorption Coefficient (Log Koc) | -0.89 – -0.21 (log Koc, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

12.5. Other adverse effects

No additional information available

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SECTION 13: Disposal considerations

13.1. Disposal methods

| | |
|--|---|
| Regional waste regulation | : Disposal must be done according to official regulations. |
| Waste treatment methods | : Dispose of contents/container in accordance with licensed collector's sorting instructions. |
| Sewage disposal recommendations | : Disposal must be done according to official regulations. |
| Product/Packaging disposal recommendations | : Disposal must be done according to official regulations. |
| Additional information | : Flammable vapors may accumulate in the container. Do not re-use empty containers. |

SECTION 14: Transport information

In accordance with DOT / TDG / IMDG / IATA

14.1. UN number

| | |
|---------------|----------|
| UN-No. (DOT) | : UN1230 |
| UN-No. (TDG) | : UN1230 |
| UN-No. (IMDG) | : 1230 |
| UN-No. (IATA) | : 1230 |

14.2. UN proper shipping name

| | |
|-----------------------------|------------|
| Proper Shipping Name (DOT) | : Methanol |
| Proper Shipping Name (TDG) | : METHANOL |
| Proper Shipping Name (IMDG) | : METHANOL |
| Proper Shipping Name (IATA) | : Methanol |

14.3. Transport hazard class(es)

DOT

| | |
|----------------------------------|-----|
| Transport hazard class(es) (DOT) | : 3 |
| Hazard labels (DOT) | : 3 |



TDG

| | |
|----------------------------------|-----------|
| Transport hazard class(es) (TDG) | : 3 (6.1) |
| Hazard labels (TDG) | : 3, 6.1 |



IMDG

| | |
|-----------------------------------|-----------|
| Transport hazard class(es) (IMDG) | : 3 (6.1) |
| Hazard labels (IMDG) | : 3, 6.1 |



IATA

| | |
|-----------------------------------|-----------|
| Transport hazard class(es) (IATA) | : 3 (6.1) |
| Hazard labels (IATA) | : 3, 6.1 |

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14.4. Packing group

| | |
|----------------------|------|
| Packing group (DOT) | : II |
| Packing group (TDG) | : II |
| Packing group (IMDG) | : II |
| Packing group (IATA) | : II |

14.5. Environmental hazards

Other information : No supplementary information available.

14.6. Special precautions for user

| | |
|---|---|
| DOT | |
| UN-No.(DOT) | : UN1230 |
| 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 Packaging Non Bulk (49 CFR 173.xxx) | : 202 |
| DOT Packaging Bulk (49 CFR 173.xxx) | : 242 |
| 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" |
| TDG | |
| UN-No. (TDG) | : UN1230 |
| TDG Special Provisions | : 43 - Despite section 2.1 of Part 2 (Classification), these dangerous goods are assigned to this classification based on human experience. |
| Explosive Limit and Limited Quantity Index | : 1 L |
| Excepted quantities (TDG) | : E2 |
| Passenger Carrying Road Vehicle or Passenger Carrying Railway Vehicle Index | : 1 L |
| Emergency Response Guide (ERG) Number | : 131 |
| IMDG | |
| Special provision (IMDG) | : 279 |
| Limited quantities (IMDG) | : 1 L |
| Excepted quantities (IMDG) | : E2 |

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| | |
|------------------------------------|---|
| Packing instructions (IMDG) | : P001 |
| IBC packing instructions (IMDG) | : IBC02 |
| Tank instructions (IMDG) | : T7 |
| Tank special provisions (IMDG) | : TP2 |
| EmS-No. (Fire) | : F-E - FIRE SCHEDULE Echo - NON-WATER-REACTIVE FLAMMABLE LIQUIDS |
| EmS-No. (Spillage) | : S-D - SPILLAGE SCHEDULE Delta - FLAMMABLE LIQUIDS |
| Stowage category (IMDG) | : B |
| Stowage and handling (IMDG) | : SW2 |
| Flash point (IMDG) | : 12°C c.c. |
| Properties and observations (IMDG) | : Colourless, volatile liquid. Flashpoint: 12°C c.c. Explosive limits: 6% to 36.5%. Miscible with water. Toxic if swallowed; may cause blindness. Avoid skin contact. |

IATA

| | |
|--|--------|
| PCA Excepted quantities (IATA) | : E2 |
| PCA Limited quantities (IATA) | : Y341 |
| PCA limited quantity max net quantity (IATA) | : 1L |
| PCA packing instructions (IATA) | : 352 |
| PCA max net quantity (IATA) | : 1L |
| CAO packing instructions (IATA) | : 364 |
| CAO max net quantity (IATA) | : 60L |
| Special provision (IATA) | : A113 |
| ERG code (IATA) | : 3L |

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: Regulatory information

15.1. US Federal regulations

Methanol (67-56-1)

Subject to reporting requirements of United States SARA Section 313
Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

All components of this product are present and listed as Active on the United States Environmental Protection Agency Toxic Substances Control Act (TSCA) inventory

Chemical(s) subject to the reporting requirements of Section 313 or Title III of the Superfund Amendments and Reauthorization Act (SARA) of 1986 and 40 CFR Part 372.

| | | |
|----------|-----------------|------|
| Methanol | CAS-No. 67-56-1 | 100% |
|----------|-----------------|------|

Methanol (67-56-1)

Listed on EPA Hazardous Air Pollutant (HAPS)

| | |
|-----------|---------|
| CERCLA RQ | 5000 lb |
|-----------|---------|

15.2. International regulations

CANADA

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Listed on the Canadian DSL (Domestic Substances List)

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Methanol (67-56-1)

Listed on the Canadian DSL (Domestic Substances List)

EU-Regulations

No additional information available

National regulations

Methanol (67-56-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

Methanol (67-56-1)

Listed on INSQ (Mexican National Inventory of Chemical Substances)

15.3. US State regulations

Methanol (67-56-1)

| | |
|---|---|
| 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 |



WARNING:

This product can expose you to 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.

| Component | State or local regulations |
|-------------------|---|
| Methanol(67-56-1) | U.S. - Massachusetts - Right To Know List; U.S. - New Jersey - Right to Know Hazardous Substance List |

SECTION 16: Other information

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

Full text of hazard classes and H-statements

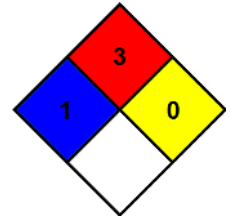
| | |
|------|-----------------------------------|
| H225 | Highly flammable liquid and vapor |
| H302 | Harmful if swallowed |
| H330 | Fatal if inhaled |
| H331 | Toxic if inhaled |
| H370 | Causes damage to organs |

Methanol

Safety Data Sheet

according to Federal Register / Vol. 77, No. 58 / Monday, March 26, 2012 / Rules and Regulations

- NFPA health hazard : 1 - Materials that, under emergency conditions, can cause significant irritation.
- NFPA fire hazard : 3 - Liquids and solids (including finely divided suspended solids) that can be ignited under almost all ambient temperature conditions.
- NFPA reactivity : 0 - Material that in themselves are normally stable, even under fire conditions.



Safety Data Sheet (SDS), USA

DISCLAIMER OF LIABILITY The information in this SDS was obtained from sources which we believe are reliable. However, the information is provided without any warranty, express or implied, regarding its correctness