# Quick III Fixative

Safety Data Sheet

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

Revision date: 30 NOV 2022

## SECTION 1: Identification

### 1.1. Identification

| | | |
|---|---|---|
| Product form | : | Substance |
| Substance name | : | Quick III Fixative |
| CAS-No. | : | 67-56-1 |
| Product code | : | 5317, 5328-G, 5303, 5316 |

### 1.2. Recommended use and restrictions on use

| | | |
|---|---|---|
| Use of the substance/mixture | : | Solvent |
| Recommended use | : | Laboratory chemicals |
| Restrictions on use | : | Not for food, drug or household use |

### 1.3. Supplier

Astral Diagnostics Inc.
Logan Township NJ 08085 - United States
T +1 856 224 0900
800-441-0366 Technical Service; Monday-Friday: 8:00AM-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 3 | H301 Toxic if swallowed |
| Acute toxicity (dermal) Category 3 | H311 Toxic in contact with skin |
| Acute toxicity (inhalation) Category 3 | H331 Toxic if inhaled |
| Specific target organ toxicity (single exposure) Category 1 | H370 Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral) |

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
H301+H311+H331 - Toxic if swallowed, in contact with skin or if inhaled
H370 - Causes damage to organs (liver, kidneys, central nervous system, optic nerve) (Dermal, oral)

Precautionary statements (GHS US) : P210 - Keep away from heat, sparks, open flames, hot surfaces. - No smoking.
P233 - Keep container tightly closed.
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 mist, vapors, spray.

P264 - Wash exposed skin 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.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
P303+P361+P353 - IF ON SKIN (or hair): Remove/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.
P330 - If swallowed, rinse mouth
P363 - Wash contaminated clothing before reuse.
P370+P378 - In case of fire: Use carbon dioxide ($CO_2$), powder, alcohol-resistant foam to extinguish
P403+P235 - Store in a well-ventilated place. Keep cool.
P405 - Store locked up.
P501 - Dispose of contents/container to comply with local, state and federal regulations.

### 2.3. Other hazards which do not result in classification

Other hazards not contributing to the classification : None.

### 2.4. Unknown acute toxicity (GHS US)

Not applicable

## SECTION 3: Composition/Information on ingredients

### 3.1. Substances

Substance type : Single constituent

| Name | Product identifier | % | GHS US classification |
|---|---|---|---|
| Methanol | (CAS-No.) 67-56-1 | 100 | Flam. Liq. 2, H225<br>Acute Tox. 3 (Oral), H301<br>Acute Tox. 3 (Dermal), H311<br>Acute Tox. 3 (Inhalation), H331<br>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 : Check the vital functions. Unconscious: maintain adequate airway and respiration. Respiratory arrest: artificial respiration or oxygen. Cardiac arrest: perform resuscitation. Victim conscious with labored breathing: half-seated. Victim in shock: on his back with legs slightly raised. Vomiting: prevent asphyxia/aspiration pneumonia. Prevent cooling by covering the victim (no warming up). Keep watching the victim. Give psychological aid. Keep the victim calm, avoid physical strain.

First-aid measures after inhalation : Remove the victim into fresh air. Immediately consult a doctor/medical service.

First-aid measures after skin contact : Wash immediately with lots of water. Soap may be used. Do not apply (chemical) neutralizing agents. Remove clothing before washing. Consult a doctor/medical service.

First-aid measures after eye contact : Rinse with water. Remove contact lenses, if present and easy to do. Continue rinsing. Take victim to an ophthalmologist if irritation persists.

First-aid measures after ingestion : Rinse mouth with water. Immediately after ingestion, give alcohol to drink. Give nothing to drink. Do not induce vomiting. Immediately consult a doctor/medical service. Take the container/vomit to the doctor/hospital. Call Poison Information Centre (www.big.be/antigif.htm).

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

Potential Adverse human health effects and symptoms : Toxic in contact with skin. Toxic if swallowed. Toxic if inhaled.

Symptoms/effects after inhalation : EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Symptoms similar to those listed under ingestion.

Symptoms/effects after skin contact : Symptoms similar to those listed under ingestion.

Symptoms/effects after eye contact : Redness of the eye tissue. Lacrimation.

| | | |
|---|---|---|
| Symptoms/effects after ingestion | : | Nausea. Vomiting. AFTER ABSORPTION OF LARGE QUANTITIES: FOLLOWING SYMPTOMS MAY APPEAR LATER: Change in the blood composition. Headache. Feeling of weakness. Abdominal pain. Muscular pain. Central nervous system depression. Dizziness. Mental confusion. Drunkenness. Coordination disorders. Disturbed motor response. Disturbances of consciousness. Visual disturbances. Blindness. Respiratory difficulties. Cramps/uncontrolled muscular contractions. |
| Chronic symptoms | : | Red skin. Dry skin. Skin rash/inflammation. Headache. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects. |

### 4.3. Immediate medical attention and special treatment, if necessary

Immediately after ingestion, give a glass of strong drink, beer or wine to drink. Hospitalize at once for treatment with the right antidotes.

## SECTION 5: Fire-fighting measures

### 5.1. Suitable (and unsuitable) extinguishing media

| | | |
|---|---|---|
| Suitable extinguishing media | : | Quick-acting ABC powder extinguisher. Quick-acting BC powder extinguisher. Quick-acting class B foam extinguisher. Quick-acting CO2 extinguisher. Class B foam (alcohol-resistant). Water spray if puddle cannot expand. |
| Unsuitable extinguishing media | : | Water (quick-acting extinguisher, reel); risk of puddle expansion. Water; risk of puddle expansion. |

### 5.2. Specific hazards arising from the chemical

| | | |
|---|---|---|
| Fire hazard | : | DIRECT FIRE HAZARD. Highly flammable liquid and vapor. Gas/vapor flammable with air within explosion limits. INDIRECT FIRE HAZARD. May be ignited by sparks. |
| Explosion hazard | : | DIRECT EXPLOSION HAZARD. Gas/vapor explosive with air within explosion limits. INDIRECT EXPLOSION HAZARD. may be ignited by sparks. Reactions with explosion hazards: see "Reactivity Hazard". |
| Hazardous decomposition products in case of fire | : | Upon combustion: CO and CO2 are formed. |

### 5.3. Special protective equipment and precautions for fire-fighters

| | | |
|---|---|---|
| Firefighting instructions | : | Cool tanks/drums with water spray/remove them into safety. Do not move the load if exposed to heat. Take account of toxic fire-fighting water. Use water moderately and if possible collect or contain it. |
| Protection during firefighting | : | Do not enter fire area without proper protective equipment, including respiratory protection. |

## SECTION 6: Accidental release measures

### 6.1. Personal precautions, protective equipment and emergency procedures

| | | |
|---|---|---|
| General measures | : | No flames, no sparks. Eliminate all sources of ignition. No naked lights. No smoking. Dike and contain spill. |

#### 6.1.1. For non-emergency personnel

| | | |
|---|---|---|
| Protective equipment | : | Gas-tight suit. |
| Emergency procedures | : | Keep upwind. Mark the danger area. Consider evacuation. Close doors and windows of adjacent premises. Stop engines and no smoking. No naked flames or sparks. Spark- and explosion-proof appliances and lighting equipment. Keep containers closed. Wash contaminated clothes. |

#### 6.1.2. For emergency responders

| | | |
|---|---|---|
| Protective equipment | : | Equip cleanup crew with proper protection. |
| Emergency procedures | : | Stop leak if safe to do so. Ventilate area. |

### 6.2. Environmental precautions

Prevent soil and water pollution. Prevent spreading in sewers.

### 6.3. Methods and material for containment and cleaning up

| | | |
|---|---|---|
| For containment | : | Contain released substance, pump into suitable containers. Plug the leak, cut off the supply. Dam up the liquid spill. Try to reduce evaporation. Measure the concentration of the explosive gas-air mixture. Dilute combustible/toxic gases/vapors with water spray. Take account of toxic/corrosive precipitation water. Provide equipment/receptacles with earthing. Do not use compressed air for pumping over spills. |
| Methods for cleaning up | : | Take up liquid spill into a non combustible material e.g.: sand, earth, vermiculite slaked lime or soda ash. Scoop absorbed substance into closing containers. Carefully collect the spill/leftovers. Damaged/cooled tanks must be emptied. Do not use compressed air for pumping over spills. Clean contaminated surfaces with an excess of water. Take collected spill to manufacturer/competent authority. Wash clothing and equipment after handling. |

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Use spark-/explosionproof appliances and lighting system. Take precautions against electrostatic charges. Keep away from naked flames/heat. Keep away from ignition sources/sparks. Measure the concentration in the air regularly. Work under local exhaust/ventilation. Comply with the legal requirements. Remove contaminated clothing immediately. Clean contaminated clothing. Handle uncleaned empty containers as full ones. Thoroughly clean/dry the installation before use. Do not discharge the waste into the drain. Do not use compressed air for pumping over. Keep container tightly closed.

Hygiene measures : Do not eat, drink or smoke when using this product. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work. Wash contaminated clothing before reuse.

### 7.2. Conditions for safe storage, including any incompatibilities

Incompatible products : Strong oxidizers. Strong bases. Strong acids. Acid anhydrides. Acid chlorides.

Incompatible materials : Direct sunlight. Heat sources. Sources of ignition.

Heat-ignition : KEEP SUBSTANCE AWAY FROM: heat sources. ignition sources.

Prohibitions on mixed storage : KEEP SUBSTANCE AWAY FROM: combustible materials. oxidizing agents. strong acids. (strong) bases. halogens. amines. water/moisture.

Storage area : Store in a cool area. Store in a dry area. Keep container in a well-ventilated place. Fireproof storeroom. Keep locked up. Provide for a tub to collect spills. Provide the tank with earthing. Unauthorized persons are not admitted. Aboveground. Meet the legal requirements.

Special rules on packaging : SPECIAL REQUIREMENTS: closing. dry. clean. correctly labelled. meet the legal requirements. Secure fragile packagings in solid containers.

Packaging materials : SUITABLE MATERIAL: steel. stainless steel. iron. glass. MATERIAL TO AVOID: lead. aluminium. zinc. polyethylene. PVC.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

| **Methanol (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 - ACGIH - Biological Exposure Indices** | |
| Local name | METHANOL |
| Biological Exposure Indices (BEI) | 15 mg/l Parameter: Methanol - Medium: urine - Sampling time: End of shift - Notations: B, Ns |
| 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 |
| **USA - IDLH - Occupational Exposure Limits** | |
| US IDLH (ppm) | 6000 ppm |
| **USA - NIOSH - Occupational Exposure Limits** | |
| NIOSH REL (TWA) (mg/m³) | 250 mg/m³ |
| NIOSH REL (TWA) (ppm) | 200 ppm |
| NIOSH REL (STEL) (mg/m³) | 325 mg/m³ |
| NIOSH REL (STEL) (ppm) | 250 ppm |
| Remark (NIOSH) | Skin |

### 8.2. Appropriate engineering controls

Appropriate engineering controls : Emergency eye wash fountains should be available in the immediate vicinity of any potential exposure. Keep concentrations well below lower explosion limits.

### 8.3. Individual protection measures/Personal protective equipment

**Personal protective equipment:**

Safety glasses. Protective clothing. Gloves. Full protective flameproof clothing. Face shield.

**Materials for protective clothing:**

GIVE GOOD RESISTANCE: polyethylene/ethylenevinylalcohol. styrene-butadiene rubber. viton. GIVE LESS RESISTANCE: chloroprene rubber. chlorinated polyethylene. natural rubber. nitrile rubber/PVC. GIVE POOR RESISTANCE: leather. neoprene. nitrile rubber. polyethylene. PVA. PVC. polyurethane

**Hand protection:**

Protective gloves against chemicals (EN 374)

**Eye protection:**

Safety glasses

**Skin and body protection:**

Head/neck protection. Protective clothing

**Respiratory protection:**

Full face mask with filter type AX at conc. in air > exposure limit. High vapor/gas concentration: self-contained respirator

**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 | : | Colorless |
| Odor | : | Characteristic odor; Alcohol odor<br>Commercial/unpurified substance: irritating/pungent odor |
| Odor threshold | : | No data available |
| pH | : | No data available |
| Melting point | : | -97.8 °C |
| Freezing point | : | No data available |
| Boiling point | : | 64.7 °C (1013 hPa) |
| Critical temperature | : | 240 °C |
| Critical pressure | : | 79547 hPa |
| Flash point | : | 9.7 °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 |
| Relative vapor density at 20 °C | : | 1.1 |
| Relative density | : | 0.79 – 0.8 (20 °C) |
| Relative density of saturated gas/air mixture | : | 1 |
| Specific gravity / density | : | 790 – 800 kg/m³ (20 °C) |

| | | |
|---|---|---|
| Molecular mass | : | 32.04 g/mol |
| Solubility | : | Soluble in water. Soluble in ethanol. Soluble in ether. Soluble in acetone. Soluble in chloroform.<br>Water: 100 g/100ml (20 °C)<br>Ethanol: complete<br>Ether: complete<br>Acetone: complete |
| Log Pow | : | -0.77 (Experimental value) |
| Auto-ignition temperature | : | 455 °C (1013 hPa, DIN 51794: Self-ignition temperature) |
| Decomposition temperature | : | No data available |
| Viscosity, kinematic | : | No data available |
| Viscosity, dynamic | : | 0.544 – 0.59 mPa·s (25 °C) |
| Explosion limits | : | 5.5 – 36.5 vol %<br>Lower explosive limit (LEL): 5.5 vol %<br>Upper explosive limit (UEL): 36.5 vol % |
| Explosive properties | : | No data available |
| Oxidizing properties | : | No data available |

### 9.2. Other information

| | | |
|---|---|---|
| Minimum ignition energy | : | 0.14 mJ |
| Saturation concentration | : | 166 g/m³ |
| VOC content | : | 100 % |
| Other properties | : | Clear. Hygroscopic. Volatile. Neutral reaction. |

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

Violent to explosive reaction with (some) metal powders and with (strong) oxidizers. Violent exothermic reaction with (some) acids and with (some) halogens compounds.

### 10.2. Chemical stability

Hygroscopic.

### 10.3. Possibility of hazardous reactions

No additional information available

### 10.4. Conditions to avoid

Direct sunlight. High temperature. Incompatible materials. Open flame. Sparks. Overheating.

### 10.5. Incompatible materials

Strong oxidizers. Strong bases. Strong acids. Peroxides. Acid anhydrides. Acid chlorides.

### 10.6. Hazardous decomposition products

Carbon dioxide. Carbon monoxide.

## 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. |

| **Methanol (67-56-1)** | |
|---|---|
| LD50 oral rat | 1187 – 2769 mg/kg body weight (BASF test, Rat, Male / female, Weight of evidence, Aqueous solution, Oral, 7 day(s)) |
| LD50 dermal rabbit | 17100 mg/kg (Rabbit, Inconclusive, insufficient data, Dermal) |
| LC50 inhalation rat (mg/l) | 128.2 mg/l air (BASF test, 4 h, Rat, Male / female, Experimental value, Inhalation (vapors)) |
| 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 |
| 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 (liver, kidneys, central nervous system, optic nerve) (Dermal, oral). |
| STOT-repeated exposure | : | Not classified |
| Aspiration hazard | : | Not classified |
| Viscosity, kinematic | : | No data available |
| Likely routes of exposure | : | Inhalation. Skin and eye contact. |
| Potential Adverse human health effects and symptoms | : | Toxic in contact with skin. Toxic if swallowed. Toxic if inhaled. |
| Symptoms/effects after inhalation | : | EXPOSURE TO HIGH CONCENTRATIONS: Coughing. Symptoms similar to those listed under ingestion. |
| Symptoms/effects after skin contact | : | Symptoms similar to those listed under ingestion. |
| Symptoms/effects after eye contact | : | Redness of the eye tissue. Lacrimation. |
| Symptoms/effects after ingestion | : | Nausea. Vomiting. AFTER ABSORPTION OF LARGE QUANTITIES: FOLLOWING SYMPTOMS MAY APPEAR LATER: Change in the blood composition. Headache. Feeling of weakness. Abdominal pain. Muscular pain. Central nervous system depression. Dizziness. Mental confusion. Drunkenness. Coordination disorders. Disturbed motor response. Disturbances of consciousness. Visual disturbances. Blindness. Respiratory difficulties. Cramps/uncontrolled muscular contractions. |
| Chronic symptoms | : | Red skin. Dry skin. Skin rash/inflammation. Headache. Disturbed tactile sensibility. Visual disturbances. Sleeplessness. Gastrointestinal complaints. Cardiac and blood circulation effects. |

## SECTION 12: Ecological information

### 12.1. Toxicity

| | | |
|---|---|---|
| Ecology - general | : | Not classified as dangerous for the environment according to the criteria of Regulation (EC) No 1272/2008. |
| Ecology - air | : | Not included in the list of substances which may contribute to the greenhouse effect (IPCC). Not included in the list of fluorinated greenhouse gases (Regulation (EU) No 517/2014). Not classified as dangerous for the ozone layer (Regulation (EC) No 1005/2009). |
| Ecology - water | : | Not harmful to crustacea. Not harmful to fishes. Groundwater pollutant. Inhibition of activated sludge. Nitrification of activated sludge is inhibited. Not harmful to algae. Not harmful to bacteria. |

| **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 Daphnia 1 | 18260 mg/l (OECD 202: Daphnia sp. Acute Immobilisation Test, 96 h, Daphnia magna, Semi-static system, Fresh water, Experimental value, Locomotor effect) |
| ErC50 (algae) | 22000 mg/l (OECD 201: Alga, Growth Inhibition Test, 96 h, Pseudokirchneriella subcapitata, Static system, Fresh water, Experimental value) |

### 12.2. Persistence and degradability

| **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)** | |
|---|---|
| BCF fish 1 | 1 – 4.5 (72 h, Cyprinus carpio, Static system, Fresh water, Experimental value) |
| Log Pow | -0.77 (Experimental value) |
| Bioaccumulative potential | Low potential for bioaccumulation (BCF < 500). |

### 12.4. Mobility in soil

| Methanol (67-56-1) | |
|---|---|
| Surface tension | 0.023 N/m (20 °C) |
| Log Koc | 0.088 (log Koc, SRC PCKOCWIN v2.0, Calculated value) |
| Ecology - soil | Highly mobile in soil. |

### 12.5. Other adverse effects

No additional information available

## SECTION 13: Disposal considerations

### 13.1. Disposal methods

Waste disposal recommendations : Do not discharge into drains or the environment. Remove waste in accordance with local and/or national regulations. Hazardous waste shall not be mixed together with other waste. Different types of hazardous waste shall not be mixed together if this may entail a risk of pollution or create problems for the further management of the waste. Hazardous waste shall be managed responsibly. All entities that store, transport or handle hazardous waste shall take the necessary measures to prevent risks of pollution or damage to people or animals. Recycle by distillation. Incinerate under surveillance with energy recovery. Obtain the consent of pollution control authorities before discharging to wastewater treatment plants.

## SECTION 14: Transport information

**Department of Transportation (DOT)**

In accordance with DOT

Transport document description : UN1230 Methanol, 3, II

UN-No.(DOT) : UN1230

Proper Shipping Name (DOT) : Methanol

Transport hazard class(es) (DOT) : 3 - Class 3 - Flammable and combustible liquid 49 CFR 173.120

Packing group (DOT) : II - Medium Danger

Hazard labels (DOT) : 3 - Flammable liquid


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

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

DOT Symbols : D - Proper shipping name for domestic use only, or to and from Canada

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'' |
| Other information | : | No supplementary information available. |

### Transport by sea

| | | |
|---|---|---|
| Transport document description (IMDG) | : | UN 1230 methanol, 3 (6.1), II |
| UN-No. (IMDG) | : | 1230 |
| Proper Shipping Name (IMDG) | : | methanol |
| Class (IMDG) | : | 3 - Flammable liquids |
| Packing group (IMDG) | : | II - substances presenting medium danger |
| Subsidiary risks (IMDG) | : | 6.1 - Toxic substances |
| EmS-No. (1) | : | F-E |
| EmS-No. (2) | : | S-D |
| MFAG-No | | 19 |

### 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 (67-56-1)** | |
|---|---|
| Listed on the United States TSCA (Toxic Substances Control Act) inventory<br>Subject to reporting requirements of United States SARA Section 313 | |
| RQ (Reportable quantity, section 304 of EPA's List of Lists) | 5000 lb |
| SARA Section 311/312 Hazard Classes | Physical hazard - Flammable (gases, aerosols, liquids, or solids)<br>Health hazard - Acute toxicity (any route of exposure)<br>Health hazard - Specific target organ toxicity (single or repeated exposure) |

All components of this product are listed and 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% |

### 15.2. International regulations

**CANADA**

| **Methanol (67-56-1)** |
|---|
| Listed on the Canadian DSL (Domestic Substances List) |

**EU-Regulations**
No additional information available
**National regulations**
No additional information available

### 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 |

**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.

## SECTION 16: Other information

Initial Date : 11 DEC 2013

Revision date : 30 NOV 2022

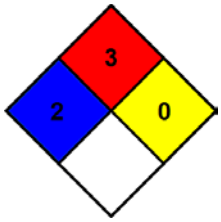
Full text of H-phrases:

| | |
|---|---|
| H225 | Highly flammable liquid and vapor |
| H301 | Toxic if swallowed |
| H311 | Toxic in contact with skin |
| H331 | Toxic if inhaled |
| H370 | Causes damage to organs |

NFPA health hazard : 2 - Materials that, under emergency conditions, can cause temporary incapacitation or residual injury.

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.




Hazard Rating

Health : 2 Moderate Hazard - Temporary or minor injury may occur

Flammability : 3 Serious Hazard - Materials capable of ignition under almost all normal temperature conditions. Includes flammable liquids with flash points below 73 F and boiling points above 100 F. as well as liquids with flash points between 73 F and 100 F. (Classes IB & IC)

Physical : 0 Minimal Hazard - Materials that are normally stable, even under fire conditions, and will NOT react with water, polymerize, decompose, condense, or self-react. Non-Explosives.

Personal protection : H

H - Splash goggles, Gloves, Synthetic apron, Vapor respirator