Section 1. Chemical Product and Company Identification

Product Name: Methanol

GHS Product Identifier: Methanol

Synonym: Carbinol; Methyl alcohol; Methyl hydroxide; Wood alcohol; Monohydroxymethane; Wood naptha; Wood spirits; Columbian spirits; Methanol.

Chemical Name: Methanol

Chemical Formula: CH_3OH

Contact Information:
Gulf Petrochemical Industries Company
51, Road 1401
Um Al-Baydh 614
Sitra, Kingdom of Bahrain
P.O. Box : 26730
Email: amahmood@gpic.net

In Case of Emergency:
00973 17 731777

Section 2. Composition and Information on Ingredients

Composition Name:	CAS #	% by Weight
Methanol	67-56-1	>99%

Section 3. Hazards Identification

Hazards Classification

Hazards	Category	Hazard Statement
Physical Hazards Classification		
Flammable Liquid	Category 2 (Flashpoint <23.5 DegC & Boiler Point > 35 DegC)	
Explosive Classification	Not classified as an explosive	
Classification as per UN Recommendation on the Transport of Dangerous Goods	Class 3	
Health Hazard Classification		
Acute Toxicity(Inhalation)	Category 2	
Acute Toxicity (Oral, Dermal)	Category 3	
Eye Damage/irritation	Category 1	
Skin Corrosion/Irritation	Category 3	
Skin Sensitization	Category 1	
Germ Cell Mutagenicity	Not Classified	
Carcinogenicity	Not Classified	
Toxic To Reproduction	Not Classified	
Specific Target organ Toxicity	Category 2.	
Environmental Hazard Classification		
Aquatic Hazard Classification	Not classified as Acute	

Section 3. Hazards Identification

Hazards to the Ozone Layer	Not listed under the Annexures of Montreal Protocol

Hazard Statements:

H225: Highly Flammable Liquid and vapour

H302: Harmful if swallowed

H304: Maybe fatal if swallowed.

H333: Maybe harmful if inhaled.

H318: Causes severe eye damage

H316: Causes mild skin irritation

H371: May cause damage to Eyes, nervous system, optic nerve in case of ingestion or skin contact.

H373: May cause damage to Eyes, nervous system, optic nerve in case of a prolonged or repeated exposure.

Prevention Precautionary Statements:

P210: Keep away from heat/sparks/open flames/hot suraces. No smoking.

P211: Do not spray methanol on open flame or other ignition source.

P211: Ground bond container and receiving equipment.

P241: Use explosion-proof electrical/ventilating/lighting equipment.

P242: Use non sparking tools.

P243: Take precautionary measures against static discharge.

P261: Avoid breathing Methanol Vapour.

P264: Wash thoroughly after handling.

P270: Do not eat drink or smoke while handling Methanol

Response Precautionary Statements:

P301: If swallowed seek medical attention

P302: If liquid methanol is exposed to skin, immediately flush the exposed skin with plenty of water for at least 15 minutes.

P303: If liquid methanol comes in contact with hair, immediately flush hair with plenty of water for 15 minutes. Wash hair with soap and water. Seek medical attention

P304: If vapour methanol is inhaled, remove to fresh air. Obtain medical attention.

P305: If liquid methanol comes in contact with eyes, remove contact lenses if worn. In case of contact, flush with plenty of water.

P306: If clothes are exposed to liquid methanol, contaminated clothing should be immediately removed to prevent skin exposure to methanol.

Emergency Overview:

Section 3. Hazards Identification

Physical Hazards

Hazard Communication:	**DANGER!** Extremely flammable liquid and vapour. Fatal if swallowed. May damage fertility for the unborn child (fetotoxic and teratogenic effects). May cause damage to eyes and central nervous system if ingested or inhaled. **Warning:** May cause damage to the nervous system through prolonged exposure.
Hazards:	Colourless liquid, with a mild characteristic alcohol odor when pure. Hygroscopic.
Flammability	Liquid and vapour methanol burns with a clean, clear flame which is almost invisible in daylight or a light blue flame. Can decompose at high temperatures forming Carbon Monoxide and Formaldehyde. Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
NFPA Ratings	Health = 1; Fire = 3; Reactivity = 0

Label

GHS02 Flammable GHS08

:

Health Hazards

Potential Acute Health Effects:	May be fatal or cause blindness if swallowed. Vapor harmful. Flammable liquid and vapor. Harmful if swallowed, inhaled, or absorbed through the skin. Cause eye, skin, and respiratory tract irritation. May cause central nervous system depression. Cannot be made non-poisonous.
Potential Chronic Health Effects	
1- Carcinogenic Effects:	Not available.
2- Mutagenic Effects:	Not available.
3- Teratogenic Effects:	Not available.
4- Developmental Toxicity:	Not available.

Section 3. Hazards Identification

Physical Hazards:	Not available.
Physical Form:	Liquid
Appearance:	Colorless liquid, Flash Point: 12℃, 53.6℉.
Odor:	Alcohol-Like, weak odor
Potential Health Effects:	
1- Eye:	May cause painful sensitization to light. Methanol is a mild to moderate eye irritant. Inhalation, ingestion or skin absorption of methanol can cause significant disturbance in vision, including blindness.
2- Skin:	Causes moderate skin irritation. May be absorbed through the skin in harmful amounts. Prolonged and or repeated contact may cause defatting of skin dermatitis. Methanol can be absorbed through the skin, producing systemic effects that include visual disturbances.
3- Inhalation:	Methanol is toxic and can very readily form extremely high vapor concentration at room temperature. Inhalation is the most common route of occupational exposure. At first, methanol causes CNS depression with nausea, headache, vomiting, dizziness and incoordination. A time period with no obvious symptoms follows (typically 8-24 hrs.). This latent period is followed by metabolic acidosis and severe visual effects which may include reduced reactivity and/or increased sensitivity to light, blurred, double and/or snowy vision, and blindness. Depending on the severity of exposure and the promptness of treatment, survivors may recover completely or may have permanent blindness, vision disturbances and/or nervous system effects.

Section 3. Hazards Identification

4- Ingestion:	May be fatal or cause blindness if swallowed. Aspiration hazard. Cannot be made non-poisonous. May cause gastrointestinal irritation with nausea, vomiting and diarrhea. May cause systematic toxicity with acidosis. May cause central nervous system depression characterized by excitement, followed by headache , dizziness, drowsiness, and nausea. Advanced stages may cause collapse, unconsciousness, coma, and possible death due to failed respiratory failure. May cause cardiopulmonary system effects.
5- Chronic:	Prolonged and repeated skin contact may cause dermatitis. Chronic exposure may cause effects similar to those of acute exposure. Methanol is only very slowly eliminated from the body. Because of this slow elimination, methanol should be regarded as a cumulative poison. Through a single exposure may cause no effect, daily exposures may result in the accumulation of a harmful amount. Methanol has produced fetotoxicity in rats and teratogenicity in mice exposed by inhalation to high concentrations that did not produce significant maternal toxicity.
6- Cancer:	No carcinogenic effects in humans reported in the literature examine
Target Organs:	Eyes, nervous system, optic nerve.
Health Precautions:	Avoid contact with eyes, skin and clothing, Wash thoroughly after handling.

Section 4. First Aid Measures

Eye Contact:	In case of contact, immediately flush eyes with plenty of water for at least 15 minutes. Get medical aid.
Skin Contact:	In case of contact, immediately flush skin with plenty of water for at least 15 minutes while removing contaminated clothing and shoes. Get medical aid immediately. Wash clothing before reuse.
Inhalation:	If inhaled remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical aid.

Section 4. First Aid Measures

Notes to Physician:	Acute exposure to methanol, either through ingestion or breathing high airborne concentrations can result in symptoms appearing between 40 minutes and 72 hours after exposure. Symptoms and signs are usually limited to the Central Nervous System (CNS), eyes and gastrointestinal tract. Because of the initial CNS's effects of headache, vertigo, lethargy and confusion, there may be an impression of ethanol intoxication. Blurred vision, decreased acuity and photophobia are common complaints. Treatment with ipecac or lavage is indicated in any patient presenting within two hours of ingestion. A profound metabolic acidosis occurs in severe poisoning and serum bicarbonate levels are more accurate measure of severity than serum methanol levels. Treatment protocols are available from most major hospitals and early collaboration with appropriate hospitals is recommended. Effects may be delayed.
Antidote:	Ethanol significantly decreases the toxicity of methanol because it competes for the same metabolic enzymes, and has been used to treat methanol poisoning.

Section 5. Fire Fighting Measures

General Information:	• As in any fire, wear a self-contained breathing apparatus in pressure-demand. MSHA/NIOSH (approved or equivalent), and full protective gear during a fire, irritating and highly toxic gases may be generated by thermal decomposition or combustion. • Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and fire may be spread by the use of water. • Vapors are heavier than air and may travel to a source of ignition and flash back. Vapors can spread along the ground and collect in low or confined areas.
Flammable Properties	
Flammability of the Product:	Flammable
Auto-Ignition Temperature:	455 deg C (851.00 deg F)
Flash Points:	12 deg C (53.60 deg F)
Flammable Limits:	Lower 6.0 vol %, upper 31.00 vol%
Products of Combustion:	These products are Carbon Oxides (CO, CO_2), and water (H_2O).
Fire Fighting Media and	• For small fires, use dry chemical, carbon dioxide, water spray or alcohol-resistant foam.

Instructions:	• General purpose synthetic foams or protein foams may work, but much less effectively. • Use water spray to keep fire-exposed containers cool. Water may be ineffective. Material is lighter than water and fire may be spread by the use of water.
Special Remarks on Fire Hazards:	• Methanol vapours may burn with an invisible flame. • During a fire, carbon monoxide, carbon dioxide and irritating and toxic gases such as formaldehyde may be generated. • Vapours can accumulate in confined spaces resulting in a toxicity and flammability hazard.
Special Remarks on Explosion Hazards:	• Close containers may rupture violently and suddenly, releasing large quantities of methanol when exposed to fire or excessive heat for a sufficient period of time • Vapours are slightly heavier than air and may travel long distances toward source of ignition.
Unusual Fire and Explosion Hazards:	Not available.

Section 6. Accidental Release Measures

General information:	• Use proper personal protective equipment as indicated in Section 8.
Spill/ leaks:	• Use water spray to disperse the gas/vapor. Methanol is water pollutant. Minimize the use of water to prevent environment pollution. • Remove all sources of ignition. • Emergency responders should wear Absorb spill using an absorbent, non-combustible material such as earth, sand, or vermiculite. Do not use combustible materials such as sawdust. • Use spark-proof tools. Provide ventilation. A vapor suppressing foam may be used to reduce vapors. Water spray may reduce vapor but may not prevent ignition in closed spaces. • For small spills- soak up spill with non-combustible absorbent material. Recover methanol and diulute with water to reduce fire hazard. Prevent methanol from entering sewers. • For large spills – contain spill b diking. Alcohol resistant foams may be applied to diminish fire and vapour hazard.

Section 7. Handling and Storage

Precautions for Handling:	• No smoking or open flame in storage, use or handling areas. • Use explosion proof electrical equipment. Ensure proper electrical grounding procedures are in place. • Wash thoroughly after handling. Remove contaminated clothing and wash before reuse. • Ground and bond containers when transferring material.

Section 7. Handling and Storage

- Use spark-proof tools and explosion proof equipment.
- Avoid contact with eyes, skin, and clothing.
- Empty containers retain product residue, (liquid and/or vapor), and can be dangerous. Keep container tightly closed. So as not to ingest or inhale.
- Do not pressurize, cut, weld, braze, solder, drill, grind, or expose empty containers to heat, sparks or open flames. Use only with adequate ventilation.
- Keep away from heat, sparks and flame. Avoid use in confined spaces.

Storage:

- Keep away from heat, sparks, and flame. Keep away from sources of ignition.
- Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area. Keep containers tightly closed.
- Tanks must be grounded, vented, and should have vapour emission controls.
- Tanks must be diked as per NFPA or API Standards.
- A flammable mixture of methanol vapour and air is possible inside a storage tank or transportation tank, and handlers should take appropriate precautions to reduce the risk of ignition. Handlers must eliminate ignition sources or purge the tank with an inert gas such as nitrogen.
- All equipment must be grounded / bonded when transferring product in order to avoid static discharge from the equipment, and subsequent possible fire.
- Avoid storage with incompatible materials. Anhydrous methanol is no corrosive to most metals at ambient temperatures except lead, nickel, monel, cast iron and high silicon iron. Coatings of copper (or Copper alloys), zinc (including galvanized steel), or aluminum are unsuitable for storage. These materials may be attacked slowly by the methanol.
- Storage tanks of welded construction are normally satisfactory.
- Plastics are suitable only for short term storage of methanol.

Section 8. Exposure Controls/Personal Protection

Engineering Controls:

Use explosion- proof ventilation equipment in confined areas. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use adequate general or local exhaust ventilation to keep airborne concentrations below the permissible exposure limits.

Respiratory Protection

Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or if irritation or other symptoms are experienced. NIOSH/OSHA recommendations for methanol concentrations in air:

- Upto 2000 ppm: supplied air respirator
- Up to 5000 ppm: supplied air respirator operated in a

Section 8. Exposure Controls/Personal Protection

continuous flow mode
- Up to 6000 ppm: supplied air respirator with a tight-fitting face-piece operated in a continuous flow mode; or Full face-piece self-contained breathing apparatus or Full face-piece supplied air respirator.
- Cartridge type respirators are NOT recommended.

Emergency or Planned entry into unknown concentrations or IDLH conditions:

Respirator:	Respirator selection must be done by a qualified person and be based upon a risk assessment of the work activities. Respirators must be fit tested and users must be clean shaven where the respirator seals to the face. Exposure must be kept at or below the applicable exposure limits and the maximum use concentration of the respirator must not be exceeded.
Skin Protection:	Wear butyl rubber gloves, apron, and/or clothing
Eye and Face Protection	Face shield and chemical splash goggles when transferring is taking place. Contact lenses should not be worn when working with methanol.
Footwear	Chemical resistant and as specified by the workplace
Other	Eyewash and showers should be located near work areas.

Section 9. Physical and Chemical Properties

Physical state and appearance:	Clear liquid, clear, colorless - APHA: 10 max
Odour:	Alcohol-like - weak odor
Molecular Weight:	32.04 g/mol
pH (1% soln/water):	Not available.
Boiling Point:	64.7 deg C @ 760 mmHg
Melting Point:	-98 deg C
Flash Point:	11.0 DegC
Evaporation Rate:	5.2 (Ether=1)
Flammability	Lower 6.0 vol %, upper 31.00 vol%
Vapor Pressure:	12.8 KPa @ 20 deg C
Specific Gravity/ Density:	0.7910 g/cm3 @ 20°C
Vapor Density:	1.105 @ 15 DegC (Air=1)
Solubility in Water:	Completely Miscible
Auto Ignition Temperature:	464 DegC
Critical	239.4 DegC.

Section 9. Physical and Chemical Properties

Temperature:	
Dispersion Properties:	See solubility in water.
Solvent Solubility:	Soluble in all proportions in ethanol, benzene, other alohols, chloroform, diethyl ether, other ethers, esters, ketones and most organic solvents
Viscosity:	0.55 cP 20 deg C

Section 10. Stability and Reactivity Data

Stability:	Stable under normal temperatures and pressures.
Incompatibility with various substances:	Oxidizing agents, reducing agents, acids, alkali metals, potassium, sodium, metals as powders (e.g. hafnium, raney nickel), acid anhydrides, acid chlorides, powdered aluminum, powdered magnesium.
Instability Temperature:	Not available.
Conditions to avoid:	Avoid high temperatures, ignition sources, sparks, confined spaces.
Hazardous Decomposition Products:	Carbon monoxide, irritating and toxic fumes and gases, carbon dioxide, formaldehyde.
Polymerization:	Will not occur.
Possibility of Hazardous Reactions:	Avoid contact with strong oxidizers, strong mineral or organic acids and strong bases. Contact with these materials may cause a violent or explosive reaction.

Section 11. Toxicological Information

RTECS#: PC1400000

Primary Routes of Entry
- Skin Contact; Skin Absorption; Eye Contact; Ingestion; Inhalation;

Acute Exposure:

Inhalation
- Inhalation of high airborne concentrations can also irritate mucous membranes, cause headaches, sleepiness, nausea, confusion, loss of consciousness, digestive and visual disturbances and even death. NOTE: Odour threshold of Methanol is several times higher than the TLC-TWA. Depending upon severity of poisoning and the promptness of treatment, survivors may recover completely or may have permanent blindness, vision disturbances and/or nervous system effects. Concentrations in air exceeding 1000 ppm may cause irritation of the mucous membranes.
  - Inhalation, rabbit: LC50 = 81000 mg/m3/14H;
  - Inhalation, rat: LC50 = 64000 ppm/4H;

Eye Contact:
- Methanol is a mild to moderate eye irritant. High vapour concentration or liquid contact eyes causes irritation, tearing and burning. Draize test on Rabbit eye
  - 40 mg Moderate
  - 100 mg/24H Moderate

Skin Contact:
- Methanol is a moderately irritating to the skin. Methanol can be absorbed through the skin and harmful effects have been reported by this route of entry. Effects are similar to those described in Inhalation.
  - Draize test, rabbit, skin: 20 mg/24H Moderate
  - Skin, rabbit : LD50 = 15800 mg/kg;

Ingestion:
- Swallowing even small amounts of methanol could potentially cause blindness or death. Effects of sub lethal doses may be nausea, headache, abdominal pain, vomiting and visual disturbances ranging from blurred vision to light sensitivity
  - Oral, mouse: LD50 = 7300 mg/kg;
  - Oral, rabbit: LD50 = 14200 mg/kg;
  - Oral, rat: LD50 = 5600 mg/kg;
  - Human LDLo Oral: 143 mg/kg; Human LDLo Oral: 428 mg/kg; Human TCLo Inhalation; 300 ppm Monkey LDLo Skin: 393 mg/kg.
  - Methanol is significantly less toxic to most experimental animals than humans, because most animal species metabolize methanol differently.
  - Non-primate species do not ordinarily show symptoms of metabolic acidosis or the visual effects which have been observed in primates and humans.

Chronic Exposure	
Irritancy	Prolonged contact with skin may dfat tissue causing dermatitis or aggravate existing skin problems.
Sensitization: None reported	
Carcinogenicity:	Not listed by ACGIH, IARC, NTP as a carcinogen.
Teratogenicity:	There is no human information available. Methanol is considered to be a potential developmental hazard based on animal data. In animal experiments, methanol has caused fetotoxicity or teratogenic effects without maternal toxicity.
Reproductive Toxicity:	Information available does not suggest that methanol is a reproductive toxin.
Mutagenicity:	See actual entry in RTECS for complete information.
Neurotoxicity:	ACGIH cites neuropathy, vision and CNS under TLV basis.
Potential for accumulation	Methanol is readily absorbed into the body following inhalation and ingestion. Skin absorption may occur if the skin is broken or exposure is prolonged. Once absorbed, methanol is rapidly distributed to body tissues. A small amount is excreted unchanged in exhaled air and the urine. The rest is first metabolized to formaldehyde, which is then metabolized to formic acid and/or formats. The formic acid and formate are eventually converted to carbon dioxide and water. In humans, methanol clears from the body, after inhalation or oral exposure, with a half-life of 1 day or more for high doses (> 1000 mg/kg) or 1.5-3 hours for low doses (< 100mg/kg or 76.5 – 230 ppm)

Section 12. Ecological Information

Ecotoxicity:	Fish: Fathead Minnow: 29.4 g/L; 96 Hr; LC50 (unspecified); Rainbow trout: LC50 = 13-68 mg/L; 96 Hr.; 12 degrees C; LC50 = 8000 mg/L; 48 Hr.; Unspecified Goldfish: 250 ppm; 11 Hr; resulted in deathFish: 8000 mg/L; 48 Hr; LC50 (unspecified) Bacteria: Phytobacterium phosphoreum: EC50 = 51,000-320,000 mg/L; 30 minutes; EC_{50}Daphnea Pulex water flea, <24 hr old; immobilization 1. 19,500 mg/ltr/18 hr; static 22 DegC, 2. 23,500 mg/ltr/24 hr 3. 22,200 mg/ltr/48 hr
Log K_{ow}:	-0.82 to -0.66
Half Life(hr) air:	427

Section 12. Ecological Information

Half Life(hr) H2O:	5.3 - 64
Surface water:	
Henry's Law Constant (atm m^3/mol)	4.55 X 10^{-6}
BOD5	0.76-1.12
COD	1.0-1.5. 99%
ThOD	1.05
Biological Concentration Factor (BCF)	0.2-1.0
TLm (48 hr)	8000 mg/ltr (trout)
Toxicity Anthropoda	NOEL 10 g/L/48 hr (Daphnia)
HSNO Classification:	9.3 Harmful to Terrestrial vertebrates

Methanol in Fresh Water or salt water may have serious effects on aquatic life. A study on methanol's toxic effects on sewage sludge bacteria reported little effect on digestion at 0.1% while 0.5% methanol retarded digestion. Methanol will be broken down into Carbon dioxide and Water.

Environmental Fate:	Dangerous to aquatic life in high concentrations. Aquatic toxicity rating: TLm 96>1000 ppm. May be dangerous if it enters water intakes. Methyl alcohol is expected to biodegrade in soil and water very rapidly. This product will show high soil mobility and will be degraded from the ambient atmosphere by the reaction with photochemically produced hyroxyl radicals with an estimated half-life of 17.8 days. Bioconcentration factor for fish (golden ide) < 10. Based on a log Kow of -0.77, the BCF value for methanol can be estimated to be 0.2.
Biodegradability:	Biodegrades easily in water and soil.
Bioaccumulation:	Does not bio-accumulate
Terrestrial fate:	Based on a classification scheme, an estimated Koc value of 1 determined from a structure estimation method indicates that methanol is expected to have very high mobility in soil. Volatilization of methanol from moist soil surfaces is expected to be an important fate process given a Henry's Law constant of 4.55 X 10^{-6} atm m^3/mol. The potential of volatilization of methanol from dry soil surfaces may exist based upon a vapour pressure of 127 mmHg. Biodegratation is expected to be an important fate process for methanol.

Section 12. Ecological Information

Aquatic Fate:

Methanol is not expected to adsorb to suspended solids and sediment.

Volatilization from water surfaces is expected based upon a Henry's Law constant 4.55 X 10^{-6} atm m^3/mol. Volatilization half-lives for a model river and model lake are three and 35 day, respectively.

According to a classification scheme, a BCF of less than 10 measured in fish, suggests bioconcentration in aquatic organisms is low.

Hydrolysis and photolysis in sunlit surface waters is not expected to be an important environmental fate process for methanol since this compound lacks functional groups that hydrolyze or absorb light under environmentally relevant conditions.

Methanol has been shown to undergo rapid biodegradation in a variety of screening studies using sewage seed and activated sludge inoculum, which suggests that biodegradation will occur in aquatic environments.

Atmospheric Fate:

Methanol is expected to exist solely as a vapour in the ambient atmosphere. Vapour–phase methanol is degraded in the atmosphere, by reaction with photo chemically-produced hydroxyl radicals; the half life for this reaction in air is estimated to be 17 days, calculated from its rate constant of 9.4 X 10^{-13}cu-cm/molecule-sec at 25 DegC

Section 13. Disposal Considerations

Waste Disposal:

- Disposal shall comply to the federal, provincial and local government's statutory requirement.
- Empty containers may contain hazardous residue. Return to supplier for reuse if possible. Never weld, cut or grind empty containers.
- While disposing containers make sure that they are well rinsed with water and then disposed off at an authorized landfill. After cleaning all the labels to be removed.

Resource Conservation and Recovery Act (RCRA) U-Series:

Waste number U154 (Ignitable waste).

Section 14. Transport Information

	US DOT	CANADA TDG
Shipping Name:	Methanol	Methanol
Hazard Class:	3	3
UN Number:	UN1230	UN1230
Packing Group:	II	II
Additional Information:	Reportable Quantity (RQ) 5000 lbs (2270 kg) Limited Quantity ≤ 1 litre Emergency Response Guidebook	Flash Point 12°C Emergency Response Guidebook ID No: 1230 Guide Number: 131

	ID No: 1230 Guide Number: 131	

Section 14. Transport Information

	IATA	IMO
Shipping Name:	Methanol	Methanol
Hazard Cl ss:	3	3
UN Number:	UN1230	UN1230
Packing G oup:	II	II
Additional Information:	1. Packaging Instruction (passenger aircraft) 305 2. 1 litre maximum package	1. Flash point = 11 DegC 2. EmS No F-E, S-D 3. Stowage Category ",B" 4. Clear of living quarters

Section 15. Other Regulatory Information

US FEDERAL

Toxic Substances Control Act (TSCA):	Listed on the TSCA inventory.
Health & Safety Reporting List:	Not listed in the Health & Safety Reporting List.
Chemical Test Rules	None of the chemicals in this product are under a Chemical Test Rule.
Section 12b:	None of the chemicals are listed under TSCA Section 12b.
CERCLA Hazardous Substances and corresponding RQs	Reportable Quantity (RQ) 5000 lb (2270 kg)

Superfund Amendment and Reauthorization Act (SARA)

SARA Codes Section 302 Extremely Hazardous Substances	None of the chemicals in this product have a Threshold Planning Quantity (TPQ)
SARA Codes	Immediate, fire.
Section 313	This material contains Methanol which is subject to the reporting requirements of Section 313 of SARA Title III and 40 CFR Part 373.
Clean Air Act(CAA):	Listed as a hazardous air pollutant (HAP). This material does not contain any Class 1 Ozone depletors. This material does not contain any Class 2 Ozone depletors.
Clean Water Act (CWA):	• None of the chemicals in this product are listed as Hazardous Substances under the CWA. • None of the chemicals in this product are listed as Priority Pollutants under the CWA. • None of the chemicals in this product are listed as

	Toxic Pollutants under the CWA.
OSHA:	None of the chemicals in this product are considered highly hazardous by OSHA.

European/International Regulations

European Labeling in Accordance with EC Directives

Hazard Symbols:	• T F
Risk Phrases:	• R 11 Highly flammable. • R 23/24/25 Toxic by inhalation, in contact with skin and if swallowed. • R 39/23/24/25 Toxic: danger of very serious irreversible effects through inhalation, in contact with skin and if swallowed.
Safety Phrases:	• S 16 Keep away from sources of ignition - No smoking. • S 36/37 Wear suitable protective clothing and gloves. • S 45 In case of accident or if you feel unwell, seek medical advice • immediately (show the label where possible). • S 7 Keep container tightly closed.
WGK (Water Danger/Protection)	Low Danger to Water – (1)
Canada - DSL/NDSL	Listed on Canada's DSL List.
Canada – WHMIS:	This product has a WHMIS classification of B2, D1B, D2B. This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations and the MSDS contains all of the information required by the regulations.
Canadian Ingredient Disclosure List:	Listed on the Canadian Ingredient Disclosure List.

Section 16. Other Information

Disclaimer:

This Material Safety Data Sheet has been prepared in accordance with GHS and contains information believed to be accurate and complete at the date of preparation. The statements contained herein are offered for informational purposes only and are based upon technical data.

GPIC believes them to be accurate but does not purport to be all-inclusive. The information above is believed to be accurate and represents the best information currently available to us. However, we make no warranty of merchantability or any other warranty, express or implied, with respect to such information, and we assume no liability resulting from its use.

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