





Safety Data Sheet

Section 1. Identification		
Product Identifier	Methanol/Methyl Hydrate	Version: 7 Effective Date: 25 January 2021
Other Means Of Identification	Methyl alcohol	
Initial Supplier Identifier	Chemfax Products Ltd. 11444 – 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Recommended Use and Restrictions On Use	Industrial Solvent. No restrictions.	
Product Family	Alcohol	
Emergency Phone	1-855-887-2055 Monday - Friday 8:00am - 4:30pm MST	

Section 2. Hazard Identification	
Hazard Classification	   
Physical Hazards	Flammable Liquids - Category 2
Health Hazards	Acute Toxicity - Oral – Category 3 Acute Toxicity – Dermal – Category 3 Acute Toxicity – Inhalation – Category 3 Eye Damage/Irritation – Category 2A Specific Target Organ Toxicity (single exposure) – Category 1
Signal Word	Danger
Hazard Statement	Highly flammable liquid and vapour. Toxic if swallowed. Toxic if it comes in contact with skin. Toxic if inhaled. Causes serious eye damage. Causes damage to organs (kidney, liver, eyes, and central nervous system) via inhalation, ingestion, and adsorption through skin.
Precautionary Prevention Statement	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep contains tightly closed. Ground and bond container and receiving equipment. Use explosion proof electrical, ventilating and lighting equipment. Use non-sparking

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	<p>tools. Take action to prevent static discharges. Wear protective gloves, clothing, and eye & face protection.</p> <p>Wash hands thoroughly after handling. Do not eat, drink, or smoke when using this product.</p> <p>Avoid inhaling dust, fume, gas, mist, vapours or spray. Only use outdoors, or in a well-ventilated area.</p>
Precautionary Response Statement	<p>IF ON SKIN (or hair): Immediately remove all contaminated clothing. Rinse and wash skin with water, or shower if on clothing. In case of fire: Use dry chemical, alcohol resistant foam, or carbon dioxide to extinguish.</p> <p>Seek medical attention if you feel unwell.</p> <p>Specific Treatment: Wash affected area with soap and water.</p> <p>IF SWALLOWED: Immediately call a POISON CENTRE.</p> <p>Specific Treatment: Rinse mouth thoroughly. Do not induce vomiting. Drink sips of water. Dilute mouth with water or milk after rinsing.</p> <p>IF INHALED: Remove person to fresh air and keep comfortable for breathing. Seek medical attention.</p> <p>Specific Treatment: Move exposed individual to fresh air. Loosen clothing and position individual in comfortable position. If breathing is difficult give oxygen.</p> <p>IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Seek medical attention.</p> <p>IF exposed or concerned: Call a POISON CENTRE</p> <p>Specific Treatment: Rinse or flush eye with plenty of water, lifting upper and lower lids.</p>
Precautionary Storage Statement	Store in a well-ventilated place. Keep container tightly closed. Keep cool. Store locked up.
Precautionary Disposal Statement	Dispose of contents/container in accordance with local regulations.
Other Hazards	None

Section 3. Composition / Information on Ingredients

Chemical Name	Common Name or Synonyms	CAS NO. and Other Unique Identifiers	% by weight
Methanol	Methyl alcohol	67-56-1	100

Section 4. First-Aid Measures

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Eye Contact	Flush eyes with water for 15 minutes. Seek medical attention.
Skin Contact	Flush area with water. If irritation persists, seek medical attention. Launder clothing before reuse.
Inhalation	Remove victim to fresh air. If there is difficulty breathing, seek immediate medical attention.
Ingestion	Rinse mouth with water if conscious. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Most Important Symptoms and Effects Both Acute and Delayed	Toxic by ingestion, inhalation or absorption through skin, potentially causing irreversible effects. Irritating to eye, skin and respiratory tract. Shortness of breath, nausea, headache. May be fatal or cause blindness if swallowed. Cannot be made non-poisonous. May cause gastrointestinal irritation, vomiting and diarrhoea, central nervous system disorders, skin disorders, and exemplify pre-existing eye disorders. Danger of very serious irreversible effects by inhalation, ingestion or absorption through skin. Reproductive toxic effects on laboratory animals. May cause adverse kidney and liver effects.
Immediate Medical Attention and Special Treatment	Methanol is a toxic substance and can lead to blindness, as well as death. This product contains methanol which can cause intoxication and central nervous system depression. Methanol is metabolized to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolization is required for these toxic symptoms, their onset may be delayed from 6 to 30 hours following ingestion. Ethanol competes for the same metabolic pathway and has been used to prevent methanol metabolism. Ethanol administration is indicated in symptomatic patients or at blood methanol concentrations above 20 ug/dl. Methanol is effectively removed by haemodialysis. Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such may be used as an antidote in methanol poisoning.

Section 5. Fire-Fighting Measures	
Suitable and Unsuitable Extinguishing Media	Dry chemical, alcohol resistant foam, or carbon dioxide
Hazardous Combustion Products	Carbon monoxide and dioxide
Specific Hazards Arising From the Product	Risk of ignition. Vapours may form explosive mixtures with air. Vapours may travel to sources of ignition and flash back. Containers may explode when heated.

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Special Protective Equipment and Precautions For Fire-Fighters	Firefighters should wear self-contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire. Vapours from this product may travel or be moved by air currents, these can be ignited by sparks, flames, heaters, static discharge etc.
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Section 6. Accidental Release Measures	
Personal Precautions, Protective Equipment and Emergency Procedures	Gloves (nitrile), coveralls (Nomex), and safety glasses. Remove all sources of ignition, avoid contact with skin, eye and clothing. Ensure adequate ventilation. Take precautions against static discharge.
Environmental Precautions	Do not allow product to enter surface drains and watercourses
Methods and Materials For Containment and Clean-Up	Remove all sources of ignition. Flammable vapours may travel or be transported by air currents to sources of ignition, such as pilot lights. Pump up large volumes of product if possible, dike and soak up remaining material on a suitable absorbent, place in a container for disposal.

Section 7. Handling and Storage	
Precautions For Safe Handling	Avoid contact with eyes, skin and clothing. Ground all containers when in use. Keep containers closed when not in use. Keep away from all sources of ignition and open flames. Do not cut or weld empty containers as residues are highly flammable.
Conditions For Safe Storage	Store in a cool dry place away from all sources of ignition. Empty containers may have flammable residues present. Keep container closed when not in use. Ground containers when in use.

Section 8. Exposure Controls / Personal Protection				
Control Parameters	TWA: 8 Hr	STEL: 15 min	Ceiling	IDLH *
Methanol	200 ppm (skin) ACGIH	250 ppm (skin) ACGIH		6000 ppm
* Immediately Dangerous to Life and Health				
Exposure Controls	Local exhaust ventilation			
Appropriate Engineering Controls	Ensure eye wash station and safety shower are available. Ensure adequate ventilation.			

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Individual Protective Measures	
Eye / Face Protection	Wear goggles
Skin Protection	Neoprene gloves and coveralls – should be cotton or non-static generating fabric.
Respiratory Protection	Approved air purifying respirator fitted with the organic vapour cartridges should be worn.

Section 9. Physical and Chemical Properties	
Appearance	Clear, colourless liquid, with pungent odour
Odour	
Odour Threshold	Not available.
pH	Not applicable.
Flash Point	12 °C
Boiling Point and Boiling Range	64.7 °C (@ 101.32 kPa)
Melting Point and Freezing Point	-97.8 °C
Evaporation Rate	2.10 (butyl acetate)
Flammability (solid, gas)	Not applicable
Upper and Lower Flammability or Explosive Limits	6 – 31%
Vapour Pressure	16.93 kPa @ 25 °C
Vapour Density	1.110 (air = 1)
Relative Density	0.792
Solubility	Completely soluble
Partition co-efficient, n-Octanol/Water	log Pow: -0.77
Auto-ignition Temperature	385 °C
Decomposition Temperature	No data
Viscosity	No data

Section 10. Stability and Reactivity	
Reactivity	Vapor may form explosive mixture with air.
Chemical Stability	Stable
Possibility of Hazardous Reactions	Will not occur
Conditions to Avoid	Avoid excessive heat, open flames and all sources of ignition.
Incompatible Materials	Avoid contact with calcium hypochlorite, hypochlorite's, peroxides, reactive metals such as aluminium, magnesium and sodium, strong acids, strong bases, strong oxidizing agents, and zinc.

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Hazardous Decomposition Products	Stable under normal conditions of use
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Section 11. Toxicological Information

Component Toxicity	LD50 Oral	LD50 Dermal	LC50 Inhalation
Methanol	5.628 g/kg (Rat)	15.8 g/kg (Rabbit)	64000ppm, 4h (Rat)
Likely Routes of Exposure			
Skin:	This product is an irritant by contact, causing redness and drying of the skin by absorption see note below.		
Eyes:	May cause severe eye irritation, with pain and swelling of the conjunctiva.		
Inhalation:	See note below.		
Ingestion:	See note below.		
	NOTE: Toxic effects from exposure may include: Stomach or intestinal upset (nausea, vomiting, diarrhoea), irritation (nose, throat, airways), central nervous system depression (dizziness, drowsiness, weakness, fatigue, nausea, headache, unconsciousness), muscles cramps, pain in the abdomen and lower back, blurred vision, shortness of breath, cyanosis (causes blue colouration of the skin and nails from lack of oxygen, visual impairment (including blindness), coma and death.		
Acute Toxicity Estimates (ATE)	Toxic		
STOT (Specific Target Organ Toxicity) – Single Exposure	Eye, skin, optic nerve, gastrointestinal tract, central nervous system, respiratory system, liver, spleen, kidney, blood.		
Aspiration Toxicity	Not classified		
STOT (Specific Target Organ Toxicity) – Repeated Exposure	Not classified		
Skin Corrosion / Irritation	Irritating		
Serious Eye Damage / Irritation	Irritating		
Respiratory or Skin Sensitization	Sensitization not displayed in laboratory animals when following OECD Test Guideline 406.		
Carcinogenicity	Not listed.		
Reproductive Toxicity			
- Sexual Function and Fertility	Not classified		



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- Development of Offspring	Developmental effects have occurred in laboratory animals.
- Effects on or via Lactation	Not classified
Germ Cell Mutagenicity	Genotoxicity in vitro – in vitro assay – <i>S. typhimurium</i> – with and without metabolic activation – negative
Interactive Effects	None known
Other Information	None known

Section 12. Ecological Information

Ecotoxicity	Methanol: LC50: 13 mg/l (<i>Oncorhynchus mykiss</i>) LC50: 29400 mg/l (<i>Pimephales promelas</i>)
Persistence and Degradability	72% - Readily biodegradable
Bioaccumulative Potential	No data
Biodegradability	Expected to be completely biodegradable
Mobility in Soil	No data
Other Adverse Effects	None known

Section 13. Disposal Considerations

Disposal Considerations	Dispose of contents/container in accordance with local regulations.
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Section 14. Transport Information

UN Number	1230
UN Proper Shipping Name	Methanol / Methyl hydrate
Transport Hazard Class(es)	3 (6.1)
Packaging Group	II
Environmental Hazards	Not applicable
Bulk Transport	Not applicable
Special Precaution	Not applicable
DOT Erg#	131
Limited quantity	1 L

Section 15. Regulatory Information

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Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL), Non-Domestic Substances List (NDSL), or exempt
TSCA	All components of this product are either on the Toxic Substances Control Act (TSCA) Inventory List or exempt
Additional Information	None

Section 16. Other Information	
NFPA Rating	Health-2/ Flammability-3/Reactivity-0/Special Hazard-Not applicable
HMIS Rating	Health-2/Flammability-3/Reactivity-0/Personal Protection-See Section 8.
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	18 August, 2011
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