


Material Safety Data Sheet

Section 1. Chemical Product and Company Identification		
Product Name:	Methanol / Methyl Hydrate	Version: V4 Effective Date: August 18, 2011
Supplier / Manufacturer:	Chemfax Products Ltd 11444 - 42 Street SE Calgary, AB T2C 5C4 Tel: 403-287-2055	
Material Uses	Industrial Solvent	
24 Hour Emergency	Canutec (613) 996-6666	
WHMIS		
		
This product has been classified in accordance with the hazard criteria of the Canadian Controlled Products Regulations (CPR) and the MSDS contains all the information required by the CPR		
HMIS Ratings for this product are: Health 3 , Flammability 3 , Reactivity 0		

Section 2. Composition and Information on Ingredients		
Name	CAS#	% by weight
Methanol	67-56-1	100
See Section 8 for information on permissible exposure limits and threshold limit values		

Section 3. Hazards Identification	
Physical State and Appearance	Clear, colourless liquid
Hazard Summary	Toxic
Routes of Exposure	Skin – contact & absorption, eyes, inhalation and ingestion
Potential Acute Health Effects	Skin: This product is an irritant by contact, causing redness and drying of the skin. By absorption see note below Eyes: Irritant – may cause permanent damage Inhalation: See note below

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	<p>Ingestion: See note below</p> <p>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</p>
Medical Conditions Aggravated by Exposure	Pre-existing disorders may be aggravated by exposure to this material:- skin, lung (eg. asthma and similar), liver, kidney, central nervous system, pancreas, heart. Exposure to this material may aggravate conditions sensitive to low oxygen levels, such as chronic lung disease, coronary artery disease or anaemia's.
See Toxicological Information – Section 11	
Additional Hazard Identification Remarks	Over exposure to this material has been shown to cause permanent visual impairment. Methanol has caused birth defects in laboratory animals, when inhaled at extremely high concentrations.

Section 4. First Aid Measures	
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	Give two glasses of water if conscious. Do not induce vomiting. Lay victim on left side to prevent aspiration of any vomit. Seek immediate medical attention.
Notes to Physician	This product contains Methanol which can cause intoxication and central nervous system depression. Methanol is metabolised to formic acid and formaldehyde. These metabolites can cause metabolic acidosis, visual disturbances and blindness. Since metabolism 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.
Additional First Aid Remarks	Fomepizole (4-methylpyrazole) is an effective antagonist of alcohol dehydrogenase, and as such may be used as an antidote in methanol poisoning

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Section 5. Fire Fighting Measures	
Flammability of the Product	Flammable liquid
Flash Point	12 °C
Explosive Limits	LEL: 7.3 % UEL: 36 %
Auto Ignition Temperature	385 °C
Static Discharge	Yes
Suitable Extinguishing Media	Dry chemical, alcohol resistant foam, carbon dioxide
Hazardous Combustion Products	Carbon dioxide and monoxide
Precautions for Fire Fighting	Fire fighters should wear self contained breathing apparatus and full protective clothing. Use water spray to cool containers and structures exposed to fire.

Section 6. Accidental Release Measures	
Personal Precautions	Chemical resistant gloves, boots, safety glasses, respirator, flameproof coveralls
Environmental Precautions	Do not allow to enter sewers and water courses
Methods for Clean Up	Remove all sources of ignition, flammable vapours may travel or be moved 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	
Handling	Flammable liquid, handle with care. Ground all drums and containers when discharging or filling. Empty containers will be hazardous when empty, residues are flammable and can cause containers to explode. Do not cut or weld empty containers.
Storage	Store in a cool dry place. Keep containers tightly closed when not in use. Keep area well ventilated. Remove all sources of ignition.

Section 8. Exposure Controls and Personal Protection			
Exposure Guidelines	TWA: 8 Hr	STEL: 15 min	Ceiling
Methanol	200 ppm (AB, OEL)	250 ppm (AB, OEL)	
Exposure Controls	Local exhaust ventilation		

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Personal Protection	
Respiratory	Air purifying respirator with organic vapour cartridges if exposure limits are being exceeded
Skin	Chemical resistant gloves (nitrile) and boots, flame resistant coveralls
Eyes	Safety glasses
Other	None

Section 9. Physical and Chemical Properties	
Physical State and Appearance	Clear, colourless liquid, with pungent odour
Odour Threshold	No data
pH	Not applicable
Boiling Point	64.7 °C (@ 101.32 kPa)
Melting Point / Freezing point	-97.8 °C
Evaporation Rate	2.10 (butyl acetate)
Vapour Density	1.110 (air = 1)
Vapour Pressure	16.93 kPa @ 25 °C
Specific Gravity	0.792 g/cm ³
Solubility in Water	Completely soluble
% Volatile	100
Other Data	

Section 10. Stability and Reactivity	
Chemical Stability	Stable
Hazardous Polymerisation	Will not occur
Conditions to Avoid	None known
Materials to Avoid	Avoid contact with calcium hypochlorite, hypochlorites, peroxides, reactive metals such as aluminum, magnesium and sodium, strong acids, strong bases, strong oxidising agents, zinc
Hazardous Decomposition Products	None known

Section 11. Toxicological Information	
Principle Routes of Exposure	
Skin:	This product is an irritant by contact, causing redness and drying of the skin. By absorption see note below
Eyes:	Irritant – may cause permanent damage
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,

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	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
Additional Information	None
Acute Toxicity	
Methanol	LDLO: 300 mg/kg (Human, oral) LD50: 12800 mg/kg (Rabbit, dermal) LC50: 64000ppm 4 hrs (Rat, inhalation)
Chronic Toxic Effects – Methanol can cause blindness and can accumulate in the body	
Carcinogenicity – Not listed	
Reproductive Toxicity / Teratogenicity / Embryotoxicity / Mutagenicity – Methanol has caused birth defects in laboratory animals, when inhaled at extremely high concentrations	

Section 12. Ecological Information	
Ecotoxicity	Methanol: EC50: >10,000 mg/L Daphnia magna (48 hr)
BOD and COD	No data
Biodegradability / OECD	Readily biodegradable
Toxicity of the Products of Biodegradation	No data
Special Remarks	None

Section 13. Disposal Considerations	
Dispose of in accordance with local, provincial and federal regulations	

Section 14. Transport Information	
TDG Classification	Methanol / methyl hydrate UN 1230, Class 3 (6.1) Packing group II
Emergency response Guide #	131
Marine Pollutant	No
Special Precautions	None

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Section 15. Regulatory Information	
Canada – DSL Inventory	All components of this product are either on the Domestic Substances List (DSL) or 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
WHMIS Hazard Class	B2 D1B
Additional Information	None

Section 16. Other Information	
Prepared by:	Chemfax Products Ltd., Technical Department
Date Prepared:	August 22, 2008
Revision Date:	August 18, 2011
Disclaimer	<p>Notice to reader</p> <p>To the best of our knowledge, the information contained herein is accurate. However, neither the above named supplier nor any of its subsidiaries assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.</p> <p>Chemfax Products Ltd. expressly disclaims all expressed or implied warranties of merchantability and fitness for a particular purpose with respect to the product provided.</p>