


# TRICAN MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION		
<b>Product Name</b>	<b>Mudsol W</b>	<b>Code</b>
<b>Supplier</b>	Trican Well Service Ltd. 2900, 645 – 7 <sup>th</sup> Ave S.W. Calgary, Alberta, T2P 4G8 For Product Information/MSDS Call: 403-266-0202 or 403-723-3688 (8:00 AM - 5:00 PM CST, Monday – Friday)	<b>Revision Date</b> November 7, 2007
<b>Product Uses</b>	Water Based Diluent	<b>Supersedes Date</b> June 1, 2004
<b>24 Hour Emergency Numbers</b>	CANUTEC 613-996-6666 (Canada 24 hours)	<b>Preparation Date</b> November 7, 2007
<b>WHMIS (Pictograms)</b> 		<b>WHMIS (Classification)</b> <b>B3</b> – Combustible Material <b>D1B</b> – Toxic material causing immediate and serious effects <b>D2B</b> – Toxic material causing other toxic effects
This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the Material Safety Data Sheet contains all information required by the CPR.		

SECTION 2. COMPOSITION AND INFORMATION ON INGREDIENTS					
Name	CAS #	%	TLV	LD(50)	LC(50)*
Methanol	67-56-1	15-40	TWA: 200 ppm STEL: 250 ppm	5,628mg/kg (rat)	Rat 64,000ppm/4h. (Sax) Dermal (rab) 20,000 mg/kg
Ethylene Glycol Mono Butyl Ether	111-76-2	10-30	TWA: 20 ppm	1.2g/kg mouse oral	486ppm 4 hour rat
Alcohols C10-16, Ethoxylated	68002-97-1	7-13	Not Available	> 2,000 mg/kg (rat)	Not Available
Please consult with local authorities for acceptable provincial exposure limits since values can vary from jurisdiction to jurisdiction. *All LC(50) are based on a four hour exposure unless otherwise noted.					

SECTION 3. HAZARDS IDENTIFICATION	
<b>Hazard Summary</b>	IRRITANT. Irritating to eyes, respiratory system and skin. Toxic by inhalation, in contact with skin and if swallowed. Keep locked up and out of reach of children. Keep container tightly closed. Keep away from sources of ignition – No smoking. Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show label or this MSDS if possible).
<b>Routes of Exposure</b>	Eyes, skin, inhalation and ingestion.
<b>Potential Acute Health Effects</b>	<p><b>Eyes Contact</b> Causes chemical burns.</p> <p><b>Skin Contact/Absorption</b> May be harmful if absorbed through the skin. Causes irritation that may be severe.</p> <p><b>Inhalation</b> May be harmful if inhaled. Liquid or vapour may cause irritation to the throat, nose and lungs. Can cause central nervous system depression.</p> <p><b>Ingestion</b> May be harmful if swallowed. Burns or irritation to mucous membranes, esophagus or GI tract can result. Ingestion may cause blindness. Can cause central nervous system depression. This product may release formaldehyde. The amount and level will depend on local conditions of use. Formaldehyde is irritating to the eyes and upper respiratory tract and may aggravate existing respiratory conditions or allergies. Is listed as a possible carcinogenic.</p>
<b>Medical Conditions Aggravated by Exposure</b>	Not Available
<b>See Toxicological Information (Section 11)</b>	
<b>Additional Hazard Identification</b>	Not Available

**Remarks****SECTION 4. FIRST AID MEASURES**

<b>Skin Contact</b>	Immediately flush with plenty of water for at least 15 minutes while removing contaminated clothing and boots. Wash all clothing and boots thoroughly before re-use.
<b>Eye Contact</b>	Immediately flush eyes with copious amounts of water for at least 15 minutes. Keep eyelids apart as much as possible. Call a physician.
<b>Inhalation</b>	If inhaled, remove to fresh air. If not breathing, give artificial respiration, preferable mouth to mouth. Call a physician.
<b>Ingestion</b>	Dilute by drinking large quantities of water. Immediately contact poison control centre or hospital emergency department for additional emergency treatment directions. Do not give liquids to an unconscious person.
<b>Notes to Physician</b>	Not Available
<b>Additional First Aid Remarks</b>	Not Available

**SECTION 5. FIRE AND EXPLOSION DATA**

<b>Conditions of Flammability</b>	Highly flammable in the presence of open flames or sparks. Vapour is heavier than air and flashback is possible.
<b>Extinguishing Media</b>	Use dry chemical, alcohol foam or CO <sub>2</sub> . Use water to keep exposed containers cool.
<b>Protective Clothing (Fire)</b>	Wear self contained breathing apparatus.
<b>Hazardous combustion Products</b>	Not Available
<b>Sensitivity to Mechanical Impact</b>	Not Available
<b>Sensitivity to Static Discharge</b>	Not Available
<b>Special Remarks on Fire Hazards</b>	Not Available

**SECTION 6. ACCIDENTAL RELEASE MEASURES**

<b>Leak and Spill Procedures</b>	<p>Put on appropriate personal protective equipment. Keep personnel removed and upwind of spill. Shut off all ignition sources; no flares, smoking or flames in hazard area. Approach release from upwind. Shut off leak if it can be done safely. Contain spilled material. Keep out of waterways. Dike large spills and use a non-sparking or explosion proof means to transfer material to an appropriate container for disposal. For small spills add absorbent (soil may be used in the absence of other suitable materials) scoop up material and place in a sealed, liquid-proof container. Note if heated that flammable vapours may form an ignitable mixture with air. Vapours may travel considerable distances from spill and flash back if ignited. Waste must be disposed of in accordance with federal, provincial and local environmental control regulations.</p> <p>Issue "hazard" warning. Eliminate all ignition sources. Isolate hazard area and restrict access. Try to work upwind of spill. Avoid direct contact with material. Wear NIOSH approved self-contained breathing apparatus (if applicable) and protective clothing.</p> <p>Prevent spilled material from entering sewers, watercourses or low-lying areas.</p> <p>Stop leak only if safe to do so. Dike and contain land spills with inert material (earth, clay or sand). For large spills remove by mechanical means and place in containers. Absorb residue or small spills with inert absorbent material and remove to non-leaking containers for disposal. Flush area with water to remove trace residue.</p> <p>Dispose of recovered materials as in section 13. Notify fire and environmental agencies.</p> <p>Provincial and federal regulations may require that environmental and/or other agencies be notified of a spill incident. Spill area must be cleaned and restored to original condition or to the satisfaction of authorities.</p>
<b>Additional Accidental Release Measures Remarks</b>	Not Available.

**SECTION 7. HANDLING AND STORAGE**

<b>Handling Procedure and</b>	Put on appropriate personal protective equipment. Avoid contact with eyes,
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<b>Equipment</b>	<p>skin and clothing. Avoid breathing vapours or spray mists. Use only with adequate ventilation. Store in a dry, cool and well ventilated area. Keep away from heat, sparks and flame. Keep away from incompatibles. Keep container tightly closed and dry. To avoid fire or explosion, ground container equipment and personnel before handling product.</p> <p>Maintain good personal hygiene. Wear appropriate personal protective equipment and avoid contact with skin, eyes or clothing. No smoking, eating or drinking allowed when using this product. Wash thoroughly after handling product. Avoid breathing vapours and prolonged or repeated contact with skin or eyes. Use adequate ventilation. Locate safety shower and eyewash station in use area.</p> <p>Empty containers may contain product residue. Follow labeled warnings even after container is emptied. Do not cut, drill, grind or weld on or near container.</p> <p>Air dry and then launder contaminated clothing prior to reuse. Store product-contaminated rags in container with tight-fitting lid.</p>
<b>Storage Requirements</b>	Store in a cool, well-ventilated area away from incompatibles. Keep container tightly closed when not in use. Store in totally enclosed equipment, designed to avoid ignition and human contact. Store in an isolated building that is cool and well ventilated. Storage tanks should be above ground, over an area sealed on the bottom and diked to hold entire contents.
<b>Additional Accidental Release Measures Remarks</b>	Not Available

### SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

**Engineering Controls** Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours or particles below their respective threshold limit value. Ensure that eyewash stations and safety showers are proximal to the work-station location.

**Personal Protection** Personal Protective Equipment recommendations are based on anticipated known manufacturing and use conditions. These conditions are expected to result in only incidental exposure. A thorough review of the job tasks and conditions by a safety professional is recommended, however, to determine the level of personal protective equipment appropriate for these job tasks and conditions.

**Respirator** Respirator use is not expected to be necessary under normal conditions of use. In poorly ventilated areas, emergency situations or if exposure may or does exceed exposure limits use a NIOSH/MSHA approved atmosphere-supplying respirator or an air-purifying respirator for organic vapours.

**Hands** Nitrile or neoprene gloves.

**Eyes** Chemical safety glasses or goggles and face shield.

**Body** Wear long sleeves to prevent repeated or prolonged skin contact.

**Feet** Stead toed, chemical resistant boots.

**Other** Emergency eyewash fountains and safety showers should be in the immediate vicinity of any potential exposure. Remove contaminated clothing and launder before reuse.

**Protective Clothing (Pictograms)**



**Additional Exposure Control Remarks** Not Available

### SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

<b>Physical State</b>	Clear Liquid
<b>Odour and Appearance</b>	Alcohol odour; colourless
<b>Odour Threshold</b>	Not Available
<b>Specific Gravity</b>	0.96
<b>Flashpoint</b>	25 C (TCC)
<b>Upper Flammable Limit (% by volume)</b>	Not Available
<b>Lower Flammable Limit (% by volume)</b>	Not Available
<b>Autoignition Temperature</b>	Not Available

<b>Vapour Density (air=1)</b>	Not Available
<b>Vapour Pressure</b>	Not Available
<b>Evaporation Rate</b>	Not Available
<b>Boiling Point</b>	35 C
<b>Freezing Point</b>	-18C
<b>Pour Point</b>	Not Available
<b>pH</b>	Not Available
<b>Viscosity</b>	Not Available
<b>Solubility in Water</b>	Miscible
<b>Coefficient of Water/Oil</b>	May be absorbed through the skin.
<b>Physical Chemical Comments</b>	Not Available

## SECTION 10. STABILITY AND REACTIVITY DATA

<b>Chemical Stability</b>	Normally Stable
<b>Conditions of Instability</b>	Not applicable
<b>Incompatible Material</b>	Strong oxidizing agents and reducing agents.
<b>Conditions of Reactivity</b>	Not Available
<b>Hazardous Decomposition Products</b>	Oxides of carbon
<b>Hazardous Polymerization</b>	Will not occur.
<b>Special Stability &amp; Reactivity</b>	Not Available
<b>Remarks</b>	

## SECTION 11. TOXICOLOGICAL INFORMATION

<b>Component Toxicological Information</b>	
<b>Acute Toxicity</b>	
1) Methanol [67-56-1]	Oral (LD50): Acute: 5628 mg/kg Rat Vapour (LC50): Acute: 58 mg/L Rat
2) Ethylene Glycol Mono Butyl Ether [111-76-2]	Oral (LD50): Acute: 1.2g/kg mouse oral Vapour (LC50): Acute: 486ppm 4 hour rat
3) <i>Alcohols C12-14 Secondary, Ethoxylated</i> [84133-50-6]	Oral (LD50): > 2,000 mg/kg (rat)
<b>Effects of Acute Exposure</b>	<i>See Hazards Identification (Section 3) Acidosis, blindness, and death.</i>
<b>Effects of Chronic Exposure</b>	Reports have associated repeated and prolonged occupational overexposure to solvents with permanent brain and nervous system damage.
<b>Irritancy of Product</b>	Irritation to eyes, and skin.
<b>Skin Sensitization</b>	Not Available
<b>Respiratory Sensitization</b>	Not Available
<b>Carcinogenicity</b>	Ethylene Glycol Mono Butyl Ether [111-76-2] is a confirmed animal carcinogen with ACGIH (A3).
<b>Reproductive Toxicity</b>	Ethylene Glycol Mono Butyl Ether [111-76-2] is a reproductive toxin.
<b>Teratogenicity</b>	Not Available
<b>Embryotoxicity</b>	Not Available
<b>Mutagenicity</b>	Not Available
<b>Synergistic Products/Effects</b>	Not Available
<b>Other Adverse Effects</b>	Not Available

## SECTION 12. ECOLOGICAL INFORMATION

<b>Ecotoxicity</b>	Not Available
<b>BOD5 and COD</b>	Not Available
<b>Biodegradable/OECD</b>	Not Available
<b>Toxicity of the Products of Biodegradation</b>	Not Available
<b>Special Remarks</b>	Do not allow product or run-off from fire control to enter storm or sanitary sewers, lakes, rivers, streams or public waterways. Block off drains and ditches. May be harmful to aquatic life.

## SECTION 13. DISPOSAL CONSIDERATIONS

Responsibility for proper waste disposal rests with the generator of the waste. Dispose of any waste material in

accordance with all applicable federal, provincial and local regulations.

**Additional Waste Remarks** Note that these regulations may also apply to empty containers, liners and rinsate. Processing, use, dilution or contamination of this product may cause its physical and chemical properties to change.

## SECTION 14. TRANSPORT INFORMATION

### TDG Classification

COMBUSTIBLE LIQUID N.O.S. (Methanol)  
Class 3, UN1993, PG I



**Marine Pollutant** Not applicable.

**Additional TDG Information** Not applicable.

**Emergency Response Guide** Guide No. 128

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## SECTION 15. REGULATORY INFORMATION

### Canadian Regulations



#### WHMIS

This product had been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all information required by the CPR. Class B3, D1B, D2B.

#### Environmental Regulations

Not available.

#### DSL Inventory

All components of this product are either on the Domestic Substances List (DSL), the Non-Domestic Substances List (NDSL) or exempt.

#### TSCA Inventory Status

All components are included or are exempted from listing on the US Toxic Substances Control Act Inventory.  
This product contains the following components that are subject to the reporting requirements of TSCA Section 12(b) if exported from the United States. None

### International Regulations

#### European Union

All components are included or are exempted from listing on the European Inventory of Existing Commercial Chemical Substances or the European List of Notified Chemical Substances.

### ILO Risk and Safety Phrases

Risk Phrases: 23/24/25

Toxic by inhalation, in contact with skin and if swallowed.

Safety Phrases: (1/2-)7-16-24/25-45

Keep locked up and out of reach of children. Keep container tightly closed.

Keep away from sources of ignition – No smoking. Avoid contact with skin and eyes. In case of accident or if you feel unwell, seek medical advice immediately (show label or this MSDS if possible).

Symbols: T

Toxic. Poisonous

### Other Regulatory Information

No further regulatory information is available.

## SECTION 16. OTHER INFORMATION

**Other Special Considerations** Format change; New issue

### Trican Well Service Ltd. Disclaimer

*NOTE: The information on this MSDS is based on data, which is considered to be accurate. Trican Well Service Ltd., however, makes no guarantees or warranty, either expressed or implied of the accuracy or completeness of this information.*

*The conditions or methods of handling, storage, use and disposal of the product are beyond our control and may be beyond our knowledge. For this and other reasons, we do not assume responsibility and expressly disclaim liability for loss, damage or expense arising out of or in any way connected with the handling, storage, use or disposal of this product.*

*This MSDS was prepared and is to be used for this product. If the product is used as a component in another product, this MSDS information may not be applicable.*

END OF MATERIAL SAFETY DATA