


TRICAN MATERIAL SAFETY DATA SHEET

SECTION 1. CHEMICAL PRODUCT AND COMPANY IDENTIFICATION			
Product Name	TriKill W	Code	
Supplier	Trican Well Service Ltd. 2900, 645 – 7 th 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)	Revision Date	
Product Uses	Well Kill Fluid	Supersedes Date	November 17, 2005
24 Hour Emergency Numbers	CANUTEC 613-996-6666 (Canada 24 hours)	Preparation Date	October 12, 2007
WHMIS (Pictograms) 		WHMIS (Classification) B3 – Combustible Liquid D2A - Very toxic material causing other toxic effects D2B – 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)*
Cat cracked clarified oil	64741-62-4	60-100	TWA: 5 Mg/M ³	Oral, Rat 4300 mg/kg	Not Available
Sulphur (solid)	7704-34-9	1-5	TWA: 10 Mg/M ³	Not Available	Not Available
Complex mixture of petroleum hydrocarbons	8008-20-8	0-40	Not Available	Oral, Rabbit 2835 mg/kg	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 noted.					

SECTION 3. HAZARDS IDENTIFICATION	
Hazard Summary	May cause cancer. May cause fire. Harmful by inhalation Keep away from sources of ignition. Avoid contact with eyes. do not pour down drains. Take precautionary measures against static discharge.
Routes of Exposure	Eyes, skin, inhalation and ingestion.
Potential Acute Health Effects	
Eyes Contact	Eye contact with product or product vapours may result in eye irritation. Hot liquid product may cause serious thermal burns on direct contact.
Skin Contact/Absorption	Prolonged skin contact may cause defatting of the skin resulting in dry cracked skin and dermatitis. Hot liquid product may cause serious thermal burns on direct contact.
Inhalation	May cause irritation of the respiratory tract and can cause central nervous system depression with symptoms of nausea, headache, vomiting, dizziness, fatigue, light headiness, reduced coordination, unconsciousness and possibly death.
Ingestion	Pulmonary aspiration hazard if swallowed and vomiting occurs. This product may contain trace quantities of hydrogen sulphide (H ₂ S) gas which may collect in confined spaces. Acute effects vary with concentration of H S released from mild eye, nose and throat irritation at approximately 100 ppm to sudden unconsciousness or death at 500 ppm.
Medical Conditions Aggravated by Exposure	Not Available
See Toxicological Information (Section 11)	
Additional Hazard Identification	Not Available
Remarks	

SECTION 4. FIRST AID MEASURES

Skin Contact	Remove contaminated clothing. Wash skin thoroughly with soap and water. Seek medical attention if irritation develops.
Eye Contact	Flush eyes for at least 15 minutes with clean water. Patch lightly, allowing drainage. Seek medical attention.
Inhalation	Protect rescuer. Move exposed person to fresh air. If breathing has stopped apply artificial respiration. Seek medical attention.
Ingestion	If swallowed, do not induce vomiting or give liquids. Seek immediate medical attention.
Notes to Physician	Not Available
Additional First Aid Remarks	Not Available

SECTION 5. FIRE AND EXPLOSION DATA

Conditions of Flammability	Released vapours may form flammable/explosive mixtures at or above the flash point. Vapours may travel considerable distances to ignition sources and cause a flash fire. Grounding of containers/pouring equipment is necessary.
Extinguishing Media	Use dry chemicals, CO ₂ , or foam
Protective Clothing (Fire)	Wear a SCBA and full protective gear for large fires. For very small fires extinguish by a fire extinguisher, SCBA may not be required.
Hazardous combustion Products	Carbon monoxide, carbon dioxide, sulphur oxides, nitrogen oxides and aldehydes.
Sensitivity to Mechanical Impact	This product is not sensitive to mechanical impact.
Sensitivity to Static Discharge	At temperatures above the flash point, this material is sensitive to static discharge. Grounding of containers/pouring equipment is necessary.
Special Remarks on Fire Hazards	Use supplied air or self contained breathing apparatus (SCBA) for large fires or for fires in enclosed areas. Do not spray water onto burning product as this may cause spattering and spreading of the flame.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Leak and Spill Procedures	Remove all ignition sources. Recover free liquid. Add absorbent (sand, earth, sawdust, to spill area). Advise authorities if product has entered or may enter sewers, water courses or extensive land area.
Additional Accidental Release Measures Remarks	Not Available

SECTION 7. HANDLING AND STORAGE

Handling Procedure and Equipment	<p>Put on appropriate personal protective equipment. Avoid contact with eyes, 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>
Storage Requirements	Keep away from sources of ignition. Store in a tightly closed container. Keep from contact with oxidizing materials. Store in a cool, dry, well-ventilated area away from incompatible substances. Flammables-area
Additional Accidental Release Measures Remarks	Not Available

SECTION 8. EXPOSURE CONTROL/PERSONAL PROTECTION

Engineering Controls	Local exhaust recommended. Use only with adequate ventilation.
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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.

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

Feet Steed 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

Not Available

Remarks

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Liquid
Odour and Appearance	Petroleum odour, black/brown in colour.
Odour Threshold	Not Available
Specific Gravity	0.95 - 1.11 (Water=1)
Flashpoint	>40 °C (Open Cup)
Upper Flammable Limit (% by volume)	Not Available
Lower Flammable Limit (% by volume)	Not Available
Autoignition Temperature	Not Available
Vapour Density (air=1)	Not Available
Vapour Pressure	Not Available
Evaporation Rate	Not Available
Boiling Point	approx. 168 °C
Freezing Point	approx. -51 °C
Pour Point	Not Available
pH	Not Available
Viscosity	Not Available
Solubility in Water	Insoluble in water.
Coefficient of Water/Oil	Insoluble in water.
Physical Chemical Comments	Not Available

SECTION 10. STABILITY AND REACTIVITY DATA

Chemical Stability	Stable
Conditions of Instability	Not Available
Incompatible Material	Strong acids, strong oxidizers and chlorine.
Conditions of Reactivity	With incompatibles.
Hazardous Decomposition Products	Carbon monoxide, carbon dioxide, sulphur oxides, nitrogen oxides and aldehydes
Hazardous Polymerization	Will not occur.
Special Stability & Reactivity	Not Available
Remarks	

SECTION 11. TOXICOLOGICAL INFORMATION

Component Toxicological Information

Acute Toxicity

1) Cat cracked clarified oil [64741-62-4] Oral (LD50): Acute: 4300 mg/kg Rat

2) Sulphur (solid) [7704-34-9]	Not Available
3) Complex mixture of petroleum hydrocarbons [8008-20-8]	Oral (LD50): Acute: 2835 mg/kg Rabbit
Effects of Acute Exposure	See Above (Section 3)
Effects of Chronic Exposure	This product may contain small quantities of polycyclic aromatic hydrocarbons. Prolonged contact with these compounds has been associated with the induction of skin and lung tumours. Clarified oil and streams similar in composition have shown the potential to cause skin cancer and adverse effects on the liver in laboratory animals following direct skin application on a daily basis over the lifetime of the animal.
Irritancy of Product	Not Available
Skin Sensitization	Not Available
Respiratory Sensitization	Not Available
Carcinogenicity	See above.
Reproductive Toxicity	Not Available
Teratogenicity	Not Available
Embryotoxicity	This product contains small quantities of xylene. High exposure to xylene has produced fetotoxic effects in animal studies.
Mutagenicity	In vivo tests conducted on mice and rats indicated a positive response for mutagenic activity.
Target organs	Ingestion, inhalation, eye and skin contact.
Target effects	Not Available
Synergistic Products/Effects	Not Available
Other Adverse Effects	Not Available


SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity	Not Available
BOD5 and COD	Not Available
Biodegradable/OECD	Not Available
Toxicity of the Products of Biodegradation	Not Available
Special Remarks	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	FLAMMABLE LIQUID, N.O.S. (Contains hydrocarbons) Class 3, UN1993, PG III	
Marine Pollutant	Not applicable.	
Additional TDG Information	Not applicable.	
Emergency Response Guide	Guide No. 131	
Page Number	Page 204	

SECTION 15. REGULATORY INFORMATION

Canadian Regulations



This product has been classified in accordance with the hazard criteria of the Controlled Product Regulations (CPR) and the MSDS contains all information required by the CPR. Class B3, D2A, D2B.

WHMIS

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: 7 20 45

May cause cancer. May cause fire. Harmful by inhalation

Safety Phrases:

Keep away from sources of ignition. Avoid contact with eyes. do not pour down drains. Take precautionary measures against static discharge.

Symbols: F, T, Xn

Toxic; Harmful

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