



MATERIAL SAFETY DATA SHEET

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TRIKILL

SECTION ONE – PRODUCT INFORMATION

Product Name: TriKill **Product Use:** Well Kill Fluid

Shipping Name/Description: NOT REGULATED

Hazard Classes: Primary: N/A **Sub. Class:** N/A

UN/NA Number: N/A **Packing Group:** N/A **ERAP – Not Required**

SECTION TWO – HAZARDOUS INGREDIENTS

<i>Ingredient:</i>	<i>CAS #</i>	<i>%</i>	<i>TLV</i>	<i>LD(50)</i>	<i>LC(50)</i>
<i>Cat cracked clarified oil</i>	64741-62-4	60-100	TWA: 5 Mg/M ³	Oral, Rat 4300 mg/kg	N/A
<i>Sulphur (solid)</i>	7704-34-9	1-5	TWA: 10 Mg/M ³	N/A	N/A

- acid strength in weight percent * - skin absorption N/A - Not available

SECTION THREE – PHYSICAL DATA

PHYSICAL STATE: Liquid

ODOUR AND APPEARANCE: Petroleum odour, black/brown in colour.

ODOUR THRESHOLD: N/A

SPECIFIC GRAVITY: at 60 °F: 1.11 (Water=1)

VAPOUR PRESSURE: N/A

VAPOUR DENSITY (air=1): N/A

EVAPORATION RATE: N/A

BOILING POINT: 168 °C (334.4 °F)

FREEZING POINT: N/A

pH: N/A

SOLUBILITY IN H2O: Insoluble in water.

COEFFICIENT OF WATER/OIL: Insoluble in water.

SECTION FOUR – FIRE AND EXPLOSION DATA

FLASHPOINT (METHOD):	65 °C Closed Cup (Pensky-Martens)
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.
SPECIAL FIRE FIGHTING PROCEDURES:	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.
LOWER EXPLOSION LIMIT (% BY VOL):	N/A
UPPER EXPLOSION LIMIT (% BY VOL.):	N/A
AUTO-IGNITION TEMPERATURE:	N/A
HAZARDOUS COMBUSTION PRODUCTS:	Carbon monoxide, carbon dioxide, sulphur oxides, nitrogen oxides and aldehydes.
SENSITIVITY TO STATIC DISCHARGE:	At temperatures above the flash point, this material is sensitive to static discharge. Grounding of containers/pouring equipment is necessary.
SENSITIVITY TO MECHANICAL IMPACT:	This product is not sensitive to mechanical impact.

SECTION FIVE – REACTIVITY DATA

CHEMICAL STABILITY:	Stable
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.

SECTION SIX – TOXICOLOGICAL PROPERTIES

ROUTES OF ENTRY:	Ingestion, inhalation, eye and skin contact.
ACCUTE OVER EXPOSURE EFFECTS:	<p>INHALATION – May cause headache, dizziness and loss of appetite. Product vapours are irritating to the respiratory tract.</p> <p>EYE CONTACT – Eye contact with product or product vapours may result in eye irritation. Hot liquid product may cause serious thermal burns on direct contact.</p> <p>SKIN CONTACT – 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.</p> <p>INGESTION – Pulmonary aspiration hazard if swallowed and vomiting occurs.</p> <p>This product may contain trace quantities of hydrogen sulphide (H₂S) gas which may collect in confined spaces. Acute effects vary with concentration of H S released from</p>

mild eye, nose and throat irritation at approximately 100 ppm to sudden unconsciousness or death at 500 ppm.

CHRONIC OVEREXPOSURE EFFECTS:

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. In vivo tests conducted on mice and rats indicated a positive response for mutagenic activity. This product contains small quantities of xylene. High exposure to xylene has produced fetotoxic effects in animal studies.

SENSITIZATION:

N/A

CARCINOGENICITY:

See above.

MUTAGENICITY:

See above.

TERETOGENICITY:

N/A

REPRODUCTIVE TOXICITY:

N/A

SYNERGISTIC PRODUCTS:

N/A

SECTION SEVEN – PREVENTATIVE MEASURES

PERSONAL PROTECTIVE EQUIPMENT:

CSA/MSA/NIOSH approved equipment: chemical goggles, impervious gloves, boots and clothing. Respiratory protection may be required in poorly ventilated areas.

SPECIFIC ENGINEERING CONTROLS:

In poorly ventilated areas, provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective threshold limit values.

LEAK AND SPILL PROCEDURES:

Evacuate unnecessary personnel. Eliminate all ignition sources. Stop leak if without risk. Contain spill and absorb with inert absorbent. Large spills should be removed with explosion proof vacuum equipment. Large pools may be covered with foam to prevent vapour evolution. Comply with federal, provincial, and local requirements for spill notification.

WASTE DISPOSAL:

Dispose of in accordance with all federal, provincial and local regulations.

HANDLING/STORAGE REQUIRMENTS:

Keep away from all ignition sources. Head spaces in storage containers may contain hydrocarbon vapours and toxic hydrogen sulphide gas.

SPECIAL SHIPPING INFORMATION:

SECTION EIGHT – FIRST AID MEASURES

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.
EYES:	Flush eyes for at least 15 minutes with clean water. Patch lightly, allowing drainage. Seek medical attention.
SKIN:	Remove contaminated clothing. Wash skin thoroughly with soap and water. Seek medical attention if irritation develops.

SECTION NINE – CLASSIFICATION

SHIPPING NAMES:	NOT REGULATED (TriKill)
TDGR Class (es):	N/A, ERAP – Not required
WHMIS Class (es):	B-3, D-2A, D-2B
DSL:	Listed

SECTION TEN – PREPARATION INFORMATION

Prepared by:	Trican Well Service Ltd.	Phone Number: (403) 266-0202
Prepared on:	May 16, 2005	
Supersedes:	None	
Reviewed by:	Safety Publications Group	

References: 1) Suppliers' Literature. 2) Trican Well Service, Research and Development. 3) NIOSH Pocket Guide to Chemical Hazards 1997. 4) The University of Vermont SIRI MSDS Archives. 5) TDGR Clear Language, October 2001.

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END OF MATERIAL SAFETY DATA