

MATERIAL SAFETY DATA SHEET

SECTION I: IDENTIFICATION OF PRODUCT

COMPANY: **Prairie Mud Services** DATE: November 20, 2017
738 6th Street PHONE: 306-634-3411
Estevan, SK Canada FAX: 306-634-7310

PRODUCT NAME: **MINERAL OIL INVERT
80/20 IEF**

PRODUCT USE: Drilling fluid

CHEMICAL FAMILY: Organic hydrocarbon & water CAS #: Mixture

SECTION II: HAZARD IDENTIFICATION:

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not WHMIS controlled WORKPLACE HAZARD: None known.

ROUTE OF ENTRY: [XX] EYE CONTACT [XX] SKIN [XX] INHALATION [XX] INGESTION

EYE CONTACT: May cause slight irritation.

SKIN CONTACT: May cause slight irritation. Prolonged or repeated exposure may cause dermatitis.

INGESTION: May cause laxative effect.

INHALATION: Vapours or mists may cause respiratory tract irritation. Prolonged exposure to high vapour concentration can cause headache, dizziness, nausea, blurred vision and central nervous system depression. Aspiration of product during swallowing or vomiting may cause chemical pneumonitis and/or pulmonary edema.

CARCINOGENICITY: Not known to contain any chemicals at reportable quantities that are listed: As Group A1 or A2 carcinogens by ACGIH; Group 1, 2A or 2B carcinogens by IARC; by NTP; by IRIS; or, by OSHA. TERATOGENICITY: Not expected to be teratogenic based on available information.

REPRODUCTIVE TOXICITY: Not expected to be a reproductive toxin based on available information.

MUTAGENICITY: Not expected to be mutagenic based on available information.

SYNERGISTIC PRODUCTS: No information available.

SECTION III: HAZARDOUS INGREDIENTS

<u>INGREDIENT</u>	<u>% (w/w)</u>	<u>CAS NUMBER</u>	<u>LD₅₀ Oral-Rat</u>	<u>LC₅₀ Inhal-Rat</u>	<u>ACGIH-TLV</u>
severely hydrotreated and hydrocracked base oil	60-100	64742-46-7	>5000 mg/kg	>2500 mg/m ³ /4hr	5 mg/m ³ (oilmist)

SECTION IV: HEALTH HAZARDS & FIRST AID MEASURES

SKIN CONTACT: Immediately wash thoroughly with water while removing contaminated clothing. If irritation develops, obtain medical attention. Immediately flush with gently flowing warm water for 15 minutes or until irritation ceases. When flushing is complete, obtain medical attention.

INGESTION: Do not induce vomiting or give liquids. Obtain immediate medical

attention. If vomiting occurs, keep head below hips to prevent aspiration of vomitus.

INHALATION: Move victim to fresh air. Apply oxygen or artificial respiration if required. Obtain medical attention.

SECTION V: FIRE AND EXPLOSION HAZARD DATA

FLASH POINT: $\geq 104^{\circ}\text{C}$ (PMCC) (based on components)
SPECIAL FIRE FIGHTING PROCEDURES: Self-contained breathing apparatus required for fire fighting personnel. Remove containers from fire area, or cool with water spray, if possible.
UNUSUAL FIRE AND EXPLOSION HAZARDS: This product is combustible.

SECTION VI: STEPS TO BE TAKEN IN CASE THE MATERIAL IS SPILLED OR RELEASED

Use appropriate safety equipment and personnel protective equipment. Evacuate nonessential personnel. Eliminate ignition sources. Stop leak if possible to do so without risk. For large spills, dike to prevent spread. Collect spilled material by vacuum if possible. Soak up remainder and small spills with absorbent material. Collect contaminated material and absorbents in approved containers for disposal. Large pools may be covered with foam to prevent vapour evolution. Comply with federal, provincial and local requirements for spill notification.

SECTION VII: HANDLING AND STORAGE

PRECAUTIONS TO BE TAKEN IN HANDLING AND STORING

Practice reasonable caution and personal cleanliness. Avoid skin and eye contact, ingestion and inhalation. Launder contaminated clothing before reuse. Keep away from oxidizers and ignition sources. Maintain temperature below flash point. Ground and bond containers before transferring.

SECTION VIII: SPECIAL PROTECTION INFORMATION

RESPIRATORY PROTECTION: Under normal conditions respiratory protection is not required. In poorly ventilated areas or enclosed spaces use an approved respirator with organic vapour cartridges or SCBA as required to prevent exposure.
VENTILATION: Use local exhaust ventilation, process enclosure or other engineering controls to maintain concentration of mists and vapours below TLV. Ensure all equipment used is explosion proof.
PROTECTIVE GLOVES: Chemical resistant gloves recommended.
EYE PROTECTION: Wear non-vented chemical goggles during use.
OTHER PROTECTIVE EQUIPMENT Full body covering clothing recommended. Ensure eye wash station and emergency shower are available.

SECTION IX: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE AND ODOUR: Clear liquid; slight petroleum odour
SPECIFIC GRAVITY: Not available
BOILING POINT ($^{\circ}\text{C}$): Not available
MELTING POINT ($^{\circ}\text{C}$): Not available
SOLUBILITY IN WATER: Insoluble pH: Not applicable
PERCENT VOLATILE BY VOLUME: Not available
EVAPORATION RATE: Not available
VAPOUR PRESSURE (mmHg): Negligible at ambient temperature and pressure.
VAPOUR DENSITY (air= 1): Not available
BULK DENSITY: Not applicable

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SECTION X: REACTIVITY DATA

STABILITY: STABLE [XX] UNSTABLE []
INCOMPATIBILITY: Avoid contact with strong oxidizers.
(CONDITIONS TO AVOID):
CONDITIONS OF REACTIVITY: Not available.
HAZARDOUS DECOMPOSITION PRODUCTS: May release oxides of carbon, methylacrylate monomers, smoke and irritating vapours when heated to decomposition.
HAZARDOUS POLYMERIZATION: WILL NOT OCCUR [XX] MAY OCCUR []

SECTION XI: TOXICOLOGICAL INFORMATION

CARCINOGENICITY: Not known to contain any chemicals at reportable quantities that are listed: As Group A1 or A2 carcinogens by ACGIH; Group 1, 2A or 2B carcinogens by IARC; by NTP; by IRIS; or, by OSHA. TERATOGENICITY: Not expected to be teratogenic based on available information.
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SECTION XIII WASTE DISPOSAL METHOD

Dispose of in accordance with federal, provincial and local regulations. It is the responsibility of the end-user to determine if material meets the criteria of hazardous waste at the time of disposal.

SECTION XIV: TRANSPORTATION OF DANGEROUS GOODS (TDG)

PROPER SHIPPING NAME: Not regulated under TDG
TDG CLASSIFICATION: Not applicable
UN NUMBER (PIN): Not applicable
PACKING GROUP: Not applicable

SECTION XV: REGULATORY INFORMATION

WORKPLACE HAZARDOUS MATERIALS INFORMATION SYSTEM (WHMIS)

WHMIS CLASSIFICATION: Not WHMIS controlled WORKPLACE HAZARD: None known.

SECTION XVI: OTHER INFORMATION

THE INFORMATION CONTAINED HEREIN IS GIVEN IN GOOD FAITH,
BUT NO WARRANTY, EXPRESSED OR IMPLIED, IS MADE.