



MATERIAL SAFETY DATA SHEET

1 . Chemical & Company Identification

Trade name :	KZN HYDRAULIC OIL HD 46
Supplier :	KZN Oils 45 North Coast Road, Durban, South Africa
Routine inquiries :	+27 31 570 0550
Fax :	+27 31 570 0522
Email :	info@kznoils.co.za
Chemical Description :	Hydraulic Oil

2. Composition & Ingredients

Components	Range in %
Solvent dewaxed heavy paraffinic distillate	> 85
Solvent dewaxed residual oil	< 15
Additives which may include extreme pressure agent, detergent-dispersant, pour point depressant, antifoam and antiwear agent	< 1

3. Hazards Identification

Warning statements:	NO SIGNIFICANT HAZARD.
Eyes:	Expected to cause no more than minor eye irritation characterized by tearing or a burning sensation.
Oral:	If more than several mouthfuls are swallowed, abdominal discomfort, nausea, and diarrhea may occur.
Inhalation:	Breathing the vapour or mist may cause respiratory irritation, discomfort, or other pulmonary effects.
Skin:	Expected to cause no more than minor skin irritation. Prolonged or frequently repeated contact may cause more severe irritation or may cause the skin to become cracked or dry from the defatting action of this material. May cause skin discolouration following prolonged or repeated contact.
Long Term Toxic Effects:	The base oil component(s) are not expected to be carcinogenic based on IARC criteria. This product has not been tested as a whole for chronic health effects. See Section 11 for additional information.

4. First Aid Measures

Eyes:	Flush eyes immediately with fresh water for at least 15 minutes while holding the eyelids open. If irritation persists, see a doctor.
Skin:	Wash skin thoroughly with soap and water. Launder contaminated clothing. If skin irritation persists or a rash develops as a result of excessive contact, see a doctor.
Ingestion:	If swallowed and person is conscious, give water or milk. DO NOT make person vomit except on advice of medical personnel. If advice cannot be obtained, take person with container and label to nearest emergency treatment center. Never give anything by mouth to an unconscious person.
Inhalation:	If respiratory irritation or any signs or symptoms as described in this MSDS occur, move the person to fresh air. If any of these effects continue, see a doctor.
Advice to Doctor:	High-pressure equipment can cause small, often bloodless, puncture wounds where material may have been injected deep into the extremity. Within 24 hours, there is usually extensive swelling, discoloration and intense pain in the affected part. Requires immediate treatment at a surgical emergency centre; else disfigurement or amputation of the affected part may occur. Treatment of high pressure wounds may include: 1) surgical decompression, debridement, and drainage. 2) broad-spectrum antibiotic and 3) anti-inflammatory medication.



5. Fire Fighting Measures

Ignition temp. (degrees c):	Not Determined
Flammable limits (% by volume):	Not Determined
Flash point (degrees c):	> 210 (COC)
Fire extinguishing agents:	According to the National Fire Protection Association Guide, use water fog, dry chemical, foam, or carbon dioxide. Water or foam may cause frothing. Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to provide protection for persons attempting to stop the leak.
Explosion hazards:	For fires involving this material, do not enter any enclosed or confined space without self-contained breathing apparatus to protect against the hazardous effects of combustion products or oxygen deficiency.

6. Accidental Release Measures

In case of spill:	Stop the source of the leak or release and contain spill if possible. Ventilate area. Use respirator and protective clothing as discussed in this MSDS. Cover spill with a generous amount of inert absorbent. Use a stiff broom to mix thoroughly. Sweep up and place in a disposable container. Scrub contaminated area with detergent and water using a stiff broom. Pick up liquid with additional absorbent and place in a disposable container. Prevent contamination of groundwater or surface water.
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7. Handling & Storage

Minimum feasible handling temperatures should be maintained. Periods of exposure to high temperatures should be minimised. Water contamination should be avoided.
Misuse of empty containers can be hazardous. DO NOT cut, weld, heat or drill container. Residue may ignite with explosive violence if heated sufficiently. Do not pressurize or expose to open flame or heat. Keep container closed and drum bungs in place.

8. Exposure Control / Personal Protection

Eyes:	No special eye protection is usually necessary. Safety glasses, chemical type goggles, or face shield appropriate where splashing or misting is expected during routine operations or spill clean-up.
Skin:	Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water, and laundering or dry cleaning soiled work clothing at least weekly.
Inhalation:	Respiratory protection is normally not required. However, if operating conditions create airborne concentrations that are excessive and may exceed the recommended exposure standard(s), the use of an approved respirator is recommended. Wear approved respiratory protection such as a toxic dust, mist and fume respirator.
Ventilation:	Use adequate ventilation to keep the airborne concentrations of this material below the ACGIH TLV for mineral oil mists. Local exhaust ventilation and/or enclosure of the process is preferred in these cases.
Exposure limits:	The ACGIH TLV for mineral oil mists is 5 mg/m ³ for a daily 8-hour exposure. A short term exposure limit (STEL) of 10 mg/m ³ is recommended.



9. Physical & Chemical Properties

Note: The following data may represent a range of approximate or typical values for products in the same family. Precise technical information is provided in Product Bulletins and can be obtained from your Marketing Representative.

Appearance & odor:	Yellowish brown liquid; mild odor
Boiling point (deg. c):	Not Determined
Vapor pr. (mmhg @ 25 deg. c):	Not Determined
Density (kg/l at 15 deg. c):	0.85 - 0.95
Vapor density (air = 1):	Not Determined
ph of undiluted product:	Not Applicable
Polubility (water):	Negligible
Percent volatile by volume:	Not Determined
Evaporation:	Not Determined
Viscosity (all product grades):	30 – 69 mm ² /s @ 40 deg. C

10. Stability & Reactivity

Hazardous polymerizations:	DO NOT OCCUR
Products of combustion:	Carbon monoxide, carbon dioxide, and aldehydes and ketones, combustion products of nitrogen or sulfur.
Conditions to avoid:	Strong oxidizers such as chlorates, nitrates, peroxides, etc.

11. Toxicological Information

<p>This product contains petroleum base oils which may be refined by various processes including severe solvent extraction, hydrocracking and hydrotreating.</p> <p>High-Pressure Equipment Information: Accidental high-velocity injection under the skin of materials of this type may result in serious injury. Seek medical attention at once should an accident like this occur. The initial wound at the injection site may not appear to be serious at first; but, if left untreated, could result in disfigurement or amputation of the affected part. Take this information with you if you seek medical treatment.</p>
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12. Ecological Information

Environmental effects:	No specific ecotoxicity data on this product are available. This material may present environmental risks common to oil spills.
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13. Disposal Considerations

Waste disposal:	Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material.
Remarks:	This material may present environmental risks common to oil spills. Contact your local oil spill response group and applicable government agencies if a spill occurs.



14. Transport Information

Transport of dangerous goods:	
UN Number:	Not Applicable
Dangerous Goods Class:	Not Applicable
Proper Shipping Name:	Not Applicable
Hazchem Code (Australia/NZ):	Not Applicable
Additional Information:	None Determined.

15. Regulatory Information

Respirator information:	Where local approval authority is absent, respirator users can refer to U.S. NIOSH, European Standard EU-149, or joint Australia-New Zealand AS/NZS 1715/1716 for guidance.
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16. Other Information

No specific notes on this product.

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