

SDS – Hydraulic Oil 68 KX+

Information

1. Identification of the Substance/Preparation and the Company/Undertaking

1.1 Product identifier:

Product name:	Hydraulic Oil 68 KX+
REACH registered name:	Not determined
REACH registered No:	Not determined
CAS Number:	Not determined

1.2 Relevant identified uses of the substance or mixture and uses advised against

Identified use(s): Sectors of Use: - SU1, SU3, SU17, PC6, PC17. - Lubricant

1.3 Details of the supplier of the safety data sheet:

Hyperdrive Lubricants Limited
47 Heming Road
Washford
Redditch
B98 0EA
www.hyperdrivelubricants.com
Tel: 01527 502252
Email: sales@keraxhyperdrive.com

Emergency telephone number: +44 (0) 1527 502252 (Office Hours)

2. Hazards Identification

2.1 Classification of the Substance or Mixture:

GHS- Classification [Regulation (EC) No 1272/2008 – Not Classified]

2.2 Label Elements:

GHS- Classification [Regulation (EC) No 1272/2008 – No label elements required.]

2.3 Other Hazards:

- **PBT:** This product is not identified as a PBT / vPvB substance – REACH annex XIII

3. Composition

3.1 Substances: Not Applicable

3.2 Mixtures: This material is defined as a mixture.

CAS No:	Substance Name	Mass % Range	EC Number	GHS/CLP Classification	REACH Reg No
64742-65-0	Distillates (petroleum), solvent-dewaxed heavy paraffinic	75-99	265-169-7	Asp. Tox. 1 H304	01-2119471299-27
85940-28-9	Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	<0.1	288-917-4	Skin Irrit. 2; H315 Eye Dam. 1; H318 Aquatic Chronic 2; H411	01-2119521201-61
67-63-0	Propan-2-ol	<0.1	200-661-7	Flam Liq. 2; H225 Eye Irrit. 2; H318 STOT SE 3; H336	01-2119457558-25

Note: See SDS Section 16 for full text of hazard statements.

There are no additional ingredients present which, within current knowledge of the supplier, are classified and contribute to the classification of the substance and hence require reporting in this section in accordance with Regulation (EC) No. 1272/2008

4. First aid measures

4.1. Description of first aid measures

Inhalation

Remove from further exposure. For those providing assistance, avoid exposure to yourself or others. Use adequate respiratory protection. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with a mechanical device or use mouth-to-mouth resuscitation.

Skin Contact

Wash contact areas with soap & water. If product is injected into or under the skin, or into any part of the body, regardless of the appearance of the wound or its size, the individual should be evaluated immediately by a physician as a surgical emergency. Even though initial symptoms from high pressure injection may be minimal or absent, early surgical treatment

within the first few hours may significantly reduce the ultimate extent of injury.

Eye Contact

Flush thoroughly with water. If irritation occurs, get medical assistance.

Ingestion

First aid is normally not required. Seek medical attention if discomfort occurs.

4.2. Most important symptoms and effects, both acute and delayed

Local necrosis as evidenced by delayed onset of pain and tissue damage a few hours after injection.

4.3. Indication of any immediate medical attention and special treatment needed

The need to have special means for providing specific and immediate medical treatment available in the workplace is not expected.

5. Firefighting measures

5.1. Extinguishing Media

Suitable Extinguishing Media: Use water fog, foam, dry chemical or carbon dioxide (CO₂) to extinguish flames.

Unsuitable Extinguishing Media: Straight streams of water

5.2. Special hazards arising from the substance or mixture

Hazardous Combustion Products: Smoke, Fume, Aldehydes, Sulphur oxides, Oxides of carbon, incomplete combustion products

5.3. Advice for fire fighters

Fire Fighting Instructions: Evacuate area. Prevent run-off from fire control or dilution from entering streams, sewers or drinking water supply. Fire-fighters should use standard protective equipment and in enclosed spaces, self-contained breathing apparatus (SCBA). Use water spray to cool fire exposed surfaces and to protect personnel.

Flammability Properties:

Flash Point [Method]: >232°C

Upper/Lower Flammable Limits (Approximate volume % in air): No data available

Auto ignition Temperature: No data available

6. Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

Notification Procedures

In the event of a spill or accidental release, notify relevant authorities in accordance with all applicable regulations.

Protective Measures

Avoid contact with spilled material. See Section 5 for firefighting information. See the Hazard Identification Section for Significant Hazards. See Section 4 for First Aid Advice. See Section 8 for advice on the minimum requirements for personal protective equipment. Additional protective measures may be necessary, depending on the specific circumstances and/or the expert judgment of the emergency responders.

For emergency responders: Respiratory protection: respiratory protection will be necessary only in special cases, e.g., formation of mists. Half-face or full-face respirator with filter(s) for dust/organic vapor or Self Contained Breathing Apparatus (SCBA) can be used depending on the size of spill and potential level of exposure. If the exposure cannot be completely characterized or an oxygen deficient atmosphere is possible or anticipated, SCBA is recommended. Work gloves that are resistant to hydrocarbons are recommended. Gloves made of polyvinyl acetate (PVA) are not water-resistant and are not suitable for emergency use. Chemical goggles are recommended if splashes or contact with eyes is possible. Small spills: normal antistatic work clothes are usually adequate. Large spills: full body suit of chemical resistant, antistatic material is recommended.

6.2. Environmental Precautions

Large Spills: Dyke far ahead of liquid spill for later recovery and disposal. Prevent entry into waterways, sewers, basements or confined areas.

6.3. Methods and material for containment and cleaning up

Land Spill: Stop leak if you can do so without risk. Recover by pumping or with suitable absorbent.

Water Spill: Stop leak if you can do so without risk. Confine the spill immediately with booms. Warn other shipping. Remove from the surface by skimming or with suitable absorbents. Seek the advice of a specialist before using dispersants.

Water spill and land spill recommendations are based on the most likely spill scenario for this material; however, geographic conditions, wind, temperature, (and in the case of a water spill) wave and current direction and speed may greatly influence the appropriate action to be taken. For this reason, local experts should be consulted. Note: Local regulations may prescribe or limit action to be taken.

6.4. References to other sections

See Sections 8 and 13.

7. Handling and storage**7.1. Precautions for safe handling**

Avoid contact with used product. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source). When the material is handled in bulk, an electrical spark could ignite any flammable vapors from liquids or residues that may be present (e.g., during switch-loading operations). Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Consult local applicable standards for guidance. Additional references include American Petroleum Institute 2003 (Protection Against Ignitions Arising out of Static, Lightning and Stray Currents) or National Fire Protection Agency 77 (Recommended Practice on Static Electricity) or CENELEC CLC/TR 50404 (Electrostatics - Code of practice for the avoidance of hazards due to static electricity).

Static Accumulator: This material is a static accumulator.

7.2. Conditions for safe storage, including any incompatibilities

The container choice, for example storage vessel, may effect static accumulation and dissipation. Do not store in open or unlabelled containers.

7.3. Specific end uses: Section 1 informs about identified end-uses. No industrial or sector specific guidance available.

8. Exposure Controls/Personal Protection**8.1 Control Parameters:**

Exposure limit values

Exposure limits/standards (Note: Exposure limits are not additive)

Substance Name	Form	Limit/Standard		Source
Distillates (petroleum), solvent-dewaxed heavy paraffinic	Mist.	TWA	5 mg/m ³	ACGIH

Exposure limits/standards for materials that can be formed when handling this product: When mists/aerosols can occur the following is recommended: 5 mg/m³ - ACGIH TLV (inhalable fraction). 10 mg/m³ - ACGIH STEL

Note: Information about recommended monitoring procedures can be obtained from the relevant agency (ies) /institute(s): UK Health and Safety Executive (HSE)

DERIVED NO EFFECT LEVEL*Worker*

Substance Name	Dermal	Inhalation
Distillates (petroleum), solvent-dewaxed heavy paraffinic	NA	5.4 mg/m ³ DNEL, Chronic Exposure, Local Effects
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	9.6 mg/kg/day Long-term systemic effects	6.6 mg/m ³ Long-term systemic effects

Consumer

Substance Name	Dermal	Inhalation	Oral
Distillates (petroleum), solvent-dewaxed heavy paraffinic	NA	1.2 mg/m ³ DNEL, Chronic Exposure, Local Effects	NA
Phosphorodithioic acid, mixed O,O-bis(2-ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	4.8 mg/kg Long-term systemic effects	1.67 mg/m ³ Long-term systemic effects	0.19 mg/kg/day Long-term systemic effects

Note: The Derived No Effect Level (DNEL) is an estimated safe level of exposure that is derived from toxicity data in accord with specific guidance within the European REACH regulation. The DNEL may differ from an Occupational Exposure Limit (OEL) for the same chemical. OELs may be recommended by an individual company, a governmental regulatory body or an expert organization, such as the Scientific Committee for Occupational Exposure Limits (SCOEL) or the American Conference of Governmental Industrial Hygienists (ACGIH). OELs are considered to be safe exposure levels for a typical worker in an occupational setting for an 8-hour work shift, 40 hour work week, as a time weighted average (TWA) or a 15 minute short-term exposure limit (STEL). While also considered to be protective of health, OELs are derived by a process different from that of REACH.

PREDICTED NO EFFECT CONCENTRATION (PNEC)

Substance Name	Aqua (fresh water)	Aqua (marine water)	Marine Water Sediment	Fresh Water Sediment	Sewage Treatment plant	Soil	Oral (secondary poisoning)
Distillates (petroleum), solvent-dewaxed heavy paraffinic	NA	NA	NA	NA	NA	NA	9.33 mg/kg (food)
Phosphorodithioic acid, mixed O,O-bis(2- ethylhexyl and iso-Bu and iso-Pr) esters, zinc salts	0.002 mg/l	-	1.93 mg/kg	19.3 mg/kg	-	-	-

8.2. Exposure Controls**Engineering Controls**

The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Control measures to consider:

No special requirements under ordinary conditions of use and with adequate ventilation.

Personal Protection

PPE selections vary based on potential exposure conditions such as applications, handling practices, concentration and ventilation. Information on the selection of protective equipment for use with this material, as provided below, is based upon intended, normal usage.

Respiratory Protection: If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable. Types of respirators to be considered for this material include:
No special requirements under ordinary conditions of use and with adequate ventilation.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapour warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

Hand Protection: Any specific glove information provided is based on published literature and glove manufacturer data. Glove suitability and breakthrough time will differ depending on the specific use conditions. Contact the glove manufacturer for specific advice on glove selection and breakthrough times for your use conditions. Inspect and replace worn or damaged gloves. The types of gloves to be considered for this material include:

No protection is ordinarily required under normal conditions of use.

Eye Protection: If contact is likely, safety glasses with side shields are recommended.

Skin and Body Protection: Any specific clothing information provided is based on published literature or manufacturer data. The types of clothing to be considered for this material include: No skin protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid skin contact.

Specific Hygiene Measures: Always observe good personal hygiene measures, such as washing after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Environmental Controls

Comply with applicable environmental regulations limiting discharge to air, water and soil. Protect the environment by applying appropriate control measures to prevent or limit emissions.

9. Physical and Chemical Properties

9.1 Information on basic chemical and physical properties:

Appearance:	Amber to Light Brown Liquid
Odour:	Typical - Mild
pH:	Not determined
Boiling point/ range:	Not determined
Flash Point:	>232°C
Evaporation Point:	Not determined
Flammability (solid, gas):	Not determined
Explosion Limits:	Not determined
Vapour pressure:	Not determined
Vapour density:	Not determined
Relative density (at 15°C):	0.87 – 0.89
Solubility in water:	Insoluble
Solubility in other solvents:	Not determined
Partition coefficient n-octanol/water:	Not determined
Auto-ignition temperature:	Not determined
Decomposition temperature:	Not determined
Viscosity (Kinematic, at 40°C):	68 cSt
Viscosity (Kinematic, at 100°C):	8.6 cSt
Explosive properties:	None
Oxidizing properties:	None

9.2 Other Information:

Pour Point	- 28°C
Viscosity Index	100

Note: Physical and chemical properties are provided for safety, health and environmental considerations only and may not fully represent product specifications. Contact the Supplier for additional information.

10. Stability and Reactivity

10.1 Reactivity: See sub-sections below.

10.2 Chemical stability: Material is stable under normal conditions.

10.3 Possibility of hazardous reactions: Hazardous polymerization will not occur.

10.4 Conditions to avoid: Excessive heat. High energy sources of ignition.

10.5 Incompatible materials: Strong oxidisers

10.6 Hazardous decomposition products: Material does not decompose at ambient temperatures.

11. Toxicological Information

11.1 Information on toxicological effects

Information on likely routes of exposure

Eye contact

Ingestion

Inhalation

Skin contact

Aspiration

Product: Not expected to be an aspiration hazard. Based on physio-chemical properties of the material.

Acute toxicity

Product:

Acute oral toxicity

Remarks: No data available

Acute inhalation toxicity

Remarks: No data available

Acute dermal toxicity

Remarks: No data available

Component:**Distillates (petroleum), solvent-dewaxed heavy paraffinic – 64742-65-0**

Acute oral toxicity

LD50 (Rat): > 5000 mg/kg

Acute inhalation toxicity

LC50 (Rat): > 5.3 mg/l Exposure time: 4 h
Test atmosphere: air

Acute dermal toxicity

LD50 (Rabbit): > 5000 mg/kg

Skin corrosion/irritation**Product:**

Remarks: No data available

Component:**Distillates (petroleum), solvent-dewaxed heavy paraffinic – 64742-65-0**

Result: There may be mild irritation at the site of contact.

Serious eye damage/eye irritation**Product:**

Remarks: No data available

Component:**Distillates (petroleum), solvent-dewaxed heavy paraffinic – 64742-65-0**

Result: There may be irritation and redness.

Respiratory or skin sensitization

There may be irritation of the throat with a feeling of tightness in the chest.

Germ cell mutagenicity

No data available

Carcinogenicity

No data available

Reproductive toxicity

No data available

STOT - single exposure

No data available

STOT - repeated exposure

No data available

Aspiration

Aspiration hazard. Can enter lungs and cause damage.

12. Ecological Information

12.1. Toxicity - Product -- May cause long lasting harmful effects to aquatic life.

Distillates (petroleum), solvent-dewaxed heavy paraffinic - CAS No – 64742-65-0		
toxicity to fish – 96hrs Acute	EC50 –Pimephales promelas	>100 mg/L
toxicity to algae – 72hrs	EC50 - Pseudokirchneriella subcapitata	>100 mg/L

12.2. Persistence and degradability

Biodegradation:

Base oil component -- Expected to be inherently biodegradable - May cause long term effects in the environment.

12.3. Bio-accumulative potential

Base oil components -- Have the potential to bio-accumulate, however metabolism or physical properties may reduce the bio-concentration or limit bioavailability.

12.4. Mobility in soil

Base oil components -- Low solubility and float and are expected to migrate from water to the land. Expected to partition to sediment and wastewater solids.

12.5. Persistence, bioaccumulation and toxicity for substance(s)

This product is not, or does not contain, a substance that is a PBT or a vPvB.

12.6. Other adverse effects

No other adverse effects are expected.

13 Disposal Considerations

Disposal recommendations based on material as supplied. Disposal must be in accordance with current applicable laws and regulations, and material characteristics at time of disposal.

13.1. Waste treatment methods

Product is suitable for burning in an enclosed controlled burner for fuel value or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Protect the environment. Dispose of used oil at designated sites. Minimize skin contact. Do not mix used oils with solvents, brake fluids or coolants.

Regulatory Disposal Information

European Waste Code: 13 02 05

NOTE: These codes are assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste producers need to assess the actual process used when generating the waste and its contaminants in order to assign the

proper waste disposal code(s).

This material is considered as hazardous waste pursuant to Directive 91/689/EEC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies.

Empty Container Warning Empty Container Warning (where applicable): Empty containers may contain residue and can be dangerous. Do not attempt to refill or clean containers without proper instructions. Empty drums should be completely drained and safely stored until appropriately reconditioned or disposed. Empty containers should be taken for recycling, recovery, or disposal through suitably qualified or licensed contractor and in accordance with governmental regulations. DO NOT PRESSURISE, CUT, WELD, BRAZE, SOLDER, DRILL, GRIND, OR EXPOSE SUCH CONTAINERS TO HEAT, FLAME, SPARKS, STATIC ELECTRICITY, OR OTHER SOURCES OF IGNITION. THEY MAY EXPLODE AND CAUSE INJURY OR DEATH.

14. Transport Information

LAND (ADR/RID):

14.1-14.6 Not Regulated for Land Transport

INLAND WATERWAYS (ADNR/ADN):

14.1-14.6 Not Regulated for Inland Waterways Transport

SEA (IMDG):

14.1-14.6 Not Regulated for Sea Transport according to IMDG-Code

SEA (MARPOL 73/78 Convention - Annex II):

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
Not classified

AIR (IATA):

14.1-14.6 Not Regulated for Air Transport

15. Regulatory Information

Applicable EU Directives and Regulations:

1907/2006 [... on the Registration, Evaluation, Authorisation and Restriction of Chemicals ... and amendments thereto]

689/2008/EC [... concerning the export and import of dangerous substances and amendments thereto]

1272/2008 [... on classification, labelling and packaging of substances and mixtures.. and

amendments thereto]

15.2. Chemical Safety Assessment

REACH Information: A Chemical Safety Assessment has been carried out for one or more substances present in the material.

16. Other Information

Indication of changes: First Issue

Key to the H-codes contained in section 3 of this document (for information only):

Asp. Tox. 1; H304 - May be fatal if swallowed and enters airways - aspiration hazard – Cat 1

Skin Irrit. 2; H315 - Causes skin irritation. -- Skin Irritant Cat 2

Eye Dam. 1; H318 - Causes serious eye damage. – Eye Damage Cat 1

Aquatic Chronic 2; H411 - Toxic to aquatic life with long lasting effects.

STOT SE3; H336 – May cause drowsiness or dizziness.

Eye Irrit. 2; H319; - Causes serious eye irritation. – Eye Irritation Cat 2

Flam. Liq. 2; H225 - Highly flammable liquid and vapour. Flammable liquid Cat 2

Abbreviations & Acronyms

PNEC	Predicted No Effect Level
DNEL	Derived No Effect Level
LD50	Median Lethal Dose
LC50	Median Lethal Concentration
CAS No	Chemical Abstract Services number
CLP	Classification Labelling and Packaging Regulation
GHS	Global Harmonisation Scheme
ES	Exposure Scenario
EC	European Commission
EC No	European Chemical Number – EINECS - ELINCS
ECHA	European Chemical Agency
EINECS	European Inventory of Existing Commercial Chemical Substances
ELINCS	European List of Notified Chemical Substances.
TWA	Time Weighted Average
ACGIH	American Conference of Governmental Industrial Hygienists
STEL	Short Term Exposure Limits

DISCLAIMER:

The information and recommendations contained herein are, to the best of Kerax Limited's knowledge and belief, accurate and reliable as of the date issued, but is offered without guarantee or warranty. They relate to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Conditions of use of the material are under the control of the user. Therefore, it is the user's responsibility to satisfy their self as to the suitability and completeness of such information for their own particular use.

HYPERDRIVE[®]

PARKAIR[®]

Hyperdrive – Safety Data Sheet

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