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SAFETY DATA SHEET

This SDS is compiled in accordance with the GHS

1. IDENTIFICATION

Product Name: **Enersol HFK**
Synonyms: Kerosene (petroleum), Petroleum Distillate
CAS Number: 8008-20-6
Product Use: Industrial Solvent
Manufacturer/Supplier: IOR Energy Pty Ltd
Address: 39 Byron Street Bulimba, Queensland, Australia 4171

General Information: +61 7 3895 4444
Emergency Contact: 000 (Australia Only)
Poisons Information Centre: 13 11 26

2. HAZARDS IDENTIFICATION

GHS Classification:

Physical Hazard(s)	Combustible Liquid Category 4
Health Hazard(s)	Skin Irritant Category 2 Aspiration Toxicity Category 1 STOT Single Exposure Category 3
Environment Hazard(s)	Aquatic Toxicity Chronic 2

GHS Label Elements	
Signal Word	**DANGER**

Hazard Statement(s)

H227	Combustible Liquid.
H304	May be fatal if swallowed and enters airways.
H315	Causes skin irritation.
H336	May cause drowsiness or dizziness.
H411	Toxic to aquatic life with long lasting effects.

Precautionary Statement(s): Prevention

P210	Keep away from flames and hot surfaces. No smoking.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection.

Precautionary Statement(s): Response

P301+P310	IF SWALLOWED: Immediately call a POISONS CENTRE on **13 11 26** or doctor/physician.
P331	Do NOT induce vomiting

3. COMPOSITION/INFORMATION ON INGREDIENTS

Component	*CAS Number*	*Volume %*
Kerosene	8008-20-6	100

4. FIRST AID MEASURES

Eye: Flush thoroughly with water. Obtain medical advice if any pain or redness develops or persists.

Skin: Wash contact areas with water. Remove contaminated clothing. Launder contaminated clothing before re-use.

Inhalation: Remove from further exposure. If respiratory irritation, dizziness, nausea, or unconsciousness occurs, seek immediate medical assistance. If breathing has stopped, assist ventilation with bag-valve-mask devise or use mouth-to-mouth resuscitation.

Ingestion: Seek immediate medical attention. Do not induce vomiting.

Advice to Physician: Material if aspirated into the lungs may cause chemical pneumonitis. Treat appropriately.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media: Foam, Dry chemical, CO_2, and water fog.

Fire Fighting Procedures: Use water to cool fire-exposed containers. If a leak or spill has not ignited, use water spray to disperse the vapours and to protect personnel attempting to stop leak. Water spray may be used to flush spills away from exposures. Prevent runoff from fire control or dilution from entering waterways, sewers or drinking water supply. For fires in enclosed areas, fire fighters must use self-contained breathing apparatus.

Unusual Fire and Explosion Hazards: Carbon monoxide may be evolved if incomplete combustion occurs. The vapour is heavier than air, spreads along the ground and distant ignition is possible. Hazardous combustion products may include: Oxides of sulphur.

6. ACCIDENTAL RELEASE MEASURES

Notification Procedure: Report spills as required to appropriate authorities such as local Environmental Health Officer or Fire Brigade. If spills are likely to enter any drain, waterway or groundwater, contact the area water Authority. In case of accident or road spill, contact police and fire brigade and if appropriate, the Area Water Authority.

Spill/Release Procedure: Eliminate all ignition sources. Contain and adsorb on suitable chemical absorbent material, etc. Shovel up and dispose of at an appropriate licensed waste disposal site in accordance with current applicable laws and regulations and product characteristics at time of disposal. Remove leaking containers to detached area.

Environmental Procedures: Prevent spills from entering storm sewers or drains and contact with soil.

Personal Precautions: Refer to Section 8.

7. HANDLING AND STORAGE

Handling: Avoid breathing of or contact with material. Use only in well ventilated areas. Wash thoroughly after handling. For guidance on selection of personal protective equipment refer to Section *.

Avoid inhaling vapour and/or mists. Avoid contact with skin, eyes, and clothing. Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge (<= 1 m/sec until fill pipe submerged to twice its diameter, then <= 7 m/sec). Avoid splash filling. Do NOT use compressed air for filling, discharging, or handling operations. Vapours are heavier than air, beware of accumulation in pits and confined spaces. Extinguish any naked flames. Do not smoke. Remove ignition sources. Avoid sparks. Handling Temperature: Ambient.

Electrostatic charges may be generated during pumping. Electrostatic discharge may cause fire. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Restrict line velocity during pumping in order to avoid generation of electrostatic discharge. Keep containers closed when not in use. Do not use compressed air for filling, discharging or handling.

Storage: Keep away from aerosols, flammables, oxidizing agents, corrosives and from other flammable products which are not harmful or toxic to man or to the environment. Keep container tightly closed. Must be stored in a dyked (bunded), well- ventilated area, away from sunlight, ignition sources and any other sources of heat. Vapours from tanks should not be released to atmosphere. Breathing losses during storage should be controlled by a suitable vapour treatment system.

Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Component	*CAS Number*	*TWA (mg/m³)*	*STEL (mg/m³)*
Kerosene	8008-20-6	No Limit	No Limit

Engineering Controls: Provide exhaust ventilation or other engineering controls to keep airborne concentrations of vapours below respective occupational exposure limits. Ensure that eyewash stations and safety showers are proximal to workstation locations.

Personal Protective Equipment (PPE)

Eye Protection: Avoid contact with eyes. Wear chemical splash goggles.

Skin Protection: Do not get on skin or clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil. Wear chemical and oil resistant gloves. Consider conditions of work and use, and condition of gloves, when selecting gloves. Develop safety procedures for material handling practices for each intended application.

Respiratory Protection: Use only with adequate ventilation. Avoid breathing vapour or mist. Approved air supplied respiratory protection should be worn whenever it is required for the worker's face to be within 1m of an open hatch.

9. PHYSICAL AND CHEMICAL PROPERTIES

Physical State	Mobile Liquid
Colour	Clear to Straw
Odour	Mild
Density	0.79 – 0.810 kg/L @ 15°C
Boiling Range	175-340°C (347-644°F)
Vapour Pressure	NA
Flash Point (FP)	>65°C (149F)
LEL	0.6% (typical)
UEL	7.0% (typical)
Solubility in Water	NA

10. STABILITY AND REACTIVITY

Stability: Stable under normal conditions of use.

Conditions to Avoid: Heat, sparks, flame and build-up of static electricity.

Incompatibility: Strong oxidizers, Halogens, strong acids and alkalis. Do not allow molten material to contact water or liquids as this can cause violent eruptions, splatter hot material, or ignite flammable material.

Hazardous Decomposition: Product does not decompose at ambient temperatures. Thermal decomposition is highly dependent on conditions. A complex mixture of airborne solids, liquids and gases including carbon monoxide, carbon dioxide, sulphur oxides and unidentified organic compounds will be evolved when this material undergoes combustion or thermal or oxidative degradation.

Hazardous Polymerization: Will not occur.

11. TOXICOLOGICAL INFORMATION

Eye Contact: May cause irritation in contact with the eyes, which can result in redness, stinging and tearing.

Skin Contact: May cause irritation in contact with the eyes, which can result in redness, stinging and tearing.

Inhalation: Mists and vapours generated may cause irritation of the upper respiratory tract. Inhalation of high concentration may lead to headache, dizziness, nausea, vomiting, drowsiness or narcosis.

Ingestion: Harmful, may cause lung damage if swallowed. Ingestion of this product will irritate the gastric tract causing nausea and vomiting. Aspiration into the lungs may result in chemical pneumonitis.

Chronic Effects: Possible risk of irreversible effect. Prolonged or repeated skin contact may cause skin irritation leading to dermatitis. Repeated or prolonged inhalation of high vapour concentrations can cause drowsiness and lead to narcosis or death.

12. ECOLOGICAL INFORMATION

Acute Toxicity: Harmful to aquatic organisms may cause long term effects in the aquatic environment. Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired.

Mobility: Spillages may penetrate the soil causing ground water contamination. This material may accumulate in sediments.

Persistence/Degradability: This product is inherently biodegradable

Bioaccumulation: There is no evidence to suggest bioaccumulation will occur.

13. DISPOSAL CONSIDERATIONS

Material Disposal: Recover or recycle if possible. It is the responsibility of the waste generator to determine the toxicity and physical properties of the material generated to determine the proper waste classification and disposal methods in compliance with applicable regulations. The product is suitable for burning in an enclosed, controlled burner for fuel value or disposed by supervised incineration.

Local Legislation: Disposal should be in accordance with applicable regional, national, and local laws and regulations. Local regulations may be more stringent than regional or national requirements and must be complied with.

14. TRANSPORT INFORMATION

UN Number	NA
UN Proper Shipping Name	Petroleum Distillate/Product (High Flash Kerosene)
Transport Hazard Class	NA
Packing Group	NA
Marine Pollutant	Yes

15. REGULATORY INFORMATION

AS1940 Class	Combustible Liquid C1
Hazardous Chemical GHS Category	4

16. OTHER INFORMATION

Compiled by:

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