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Safety Data Sheet according to WHS and ADG requirements

**SECTION 1 IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING**
**Product Identifier**

<b>Product name</b>	FUEL OIL
<b>Synonyms</b>	Marine Residual Fuel, Petroleum Hydrocarbons

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

<b>Product Use</b>	Fuel for Industrial, Marine, and Commercial Boilers and Furnaces
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**Details of the supplier of the safety data sheet**

<b>Registered company name</b>	Kisimat Singapore PTE LTD
<b>Address</b>	16-09 High Street Centre, Singapore 179094
<b>Telephone</b>	+65 6337 0814
<b>Fax</b>	+65 6338 9440
<b>Website</b>	www.ourkismat.com
<b>Email</b>	sng@ourkismat.com

**Emergency telephone number**

<b>Association / Organisation</b>	Not Available
<b>Emergency telephone numbers</b>	+65 6337 0814
<b>Other emergency telephone numbers</b>	Not Available

**SECTION 2 HAZARDS IDENTIFICATION**
**Classification of the substance or mixture**

**NON-HAZARDOUS CHEMICAL. NON-DANGEROUS GOODS.** According to the WHS Regulations and the ADG Code.

**CHEMWATCH HAZARD RATINGS**

	Min	Max
Flammability	1	1
Toxicity	1	1
Body Contact	1	1
Reactivity	1	1
Chronic	0	0

0 = Minimum  
 1 = Low  
 2 = Moderate  
 3 = High  
 4 = Extreme

<b>Poisons Schedule</b>	Not Applicable
<b>Classification</b>	Not Applicable

**Label elements**

<b>Hazard pictogram(s)</b>	Not Applicable
<b>SIGNAL WORD</b>	<b>NOT APPLICABLE</b>

**Hazard statement(s)**

Not Applicable

**Precautionary statement(s) Prevention**

Not Applicable

**Precautionary statement(s) Response**

Not Applicable

**Precautionary statement(s) Storage**

Not Applicable

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**Precautionary statement(s) Disposal**

Not Applicable

**SECTION 3 COMPOSITION / INFORMATION ON INGREDIENTS**

**Substances**

See section below for composition of Mixtures

**Mixtures**

CAS No	%[weight]	Name
68476-33-5.	90-100	<u>Marine Residual Fuel, Petroleum Hydrocarbons</u>

**SECTION 4 FIRST AID MEASURES**

**Description of first aid measures**

<b>Eye Contact</b>	<p>If this product comes in contact with the eyes:</p> <ul style="list-style-type: none"> <li>Wash out immediately with fresh running water.</li> <li>Ensure complete irrigation of the eye by keeping eyelids apart and away from eye and moving the eyelids by occasionally lifting the upper and lower lids.</li> <li>Seek medical attention without delay; if pain persists or recurs seek medical attention.</li> <li>Removal of contact lenses after an eye injury should only be undertaken by skilled personnel.</li> </ul>
<b>Skin Contact</b>	<p>If skin contact occurs:</p> <ul style="list-style-type: none"> <li>Immediately remove all contaminated clothing, including footwear.</li> <li>Flush skin and hair with running water (and soap if available).</li> <li>Seek medical attention in event of irritation.</li> </ul>
<b>Inhalation</b>	<ul style="list-style-type: none"> <li>If fumes or combustion products are inhaled remove from contaminated area.</li> <li>Lay patient down. Keep warm and rested.</li> <li>Prostheses such as false teeth, which may block airway, should be removed, where possible, prior to initiating first aid procedures.</li> <li>Apply artificial respiration if not breathing, preferably with a demand valve resuscitator, bag-valve mask device, or pocket mask as trained. Perform CPR if necessary.</li> <li>Transport to hospital, or doctor.</li> </ul>
<b>Ingestion</b>	<ul style="list-style-type: none"> <li><b>If swallowed do NOT induce vomiting.</b></li> <li>If vomiting occurs, lean patient forward or place on left side (head-down position, if possible) to maintain open airway and prevent aspiration.</li> <li>Observe the patient carefully.</li> <li>Never give liquid to a person showing signs of being sleepy or with reduced awareness; i.e. becoming unconscious.</li> <li>Give water to rinse out mouth, then provide liquid slowly and as much as casualty can comfortably drink.</li> <li>Seek medical advice.</li> </ul>

**Indication of any immediate medical attention and special treatment needed**

Treat symptomatically.

- Heavy and persistent skin contamination over many years may lead to dysplastic changes. Pre-existing skin disorders may be aggravated by exposure to this product.
- In general, emesis induction is unnecessary with high viscosity, low volatility products, i.e. most oils and greases.
- High pressure accidental injection through the skin should be assessed for possible incision, irrigation and/or debridement.

**NOTE:** Injuries may not seem serious at first, but within a few hours tissue may become swollen, discoloured and extremely painful with extensive subcutaneous necrosis. Product may be forced through considerable distances along tissue planes.

**SECTION 5 FIREFIGHTING MEASURES**

**Extinguishing media**

- Foam.
- Fine water spray and Dry chemical powder
- Clean Agents (Inergen, Argonite)
- Carbon dioxide and Sand or Earth may be used for small fires only

**Hazards from Combustion Products**

Combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates and gases, including carbon monoxide, clean Agents ( Inergen, Argonite), sand or earth maybe used for small fires only

<b>Specific Hazards</b>	<ul style="list-style-type: none"> <li>The vapour is heavier than air, spreads along the ground and distant ignition is possible.</li> <li>Will float and maybe reignited on surface water.</li> <li>Flammable vapours may be present even at temperatures below the flash point.</li> <li>Do not use water jet</li> </ul>
<b>Unsuitable Extinguishing Media</b>	
<b>Protective Equipment For firefighters</b>	<ul style="list-style-type: none"> <li>Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location.</li> <li>This product should be prevented from entering drains and watercourses.</li> </ul>
<b>Additional Advice</b>	<p>Keep adjacent drums and tanks cool by spraying with water from a safe location. If possible remove them from the danger zone. If adequate cooling cannot be achieved, the area needs to be evacuated, and further fire fighting and cooling attempts should be carried out from a safe location.</p>
<b>HAZCHEM</b>	NOT AVAILABLE

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**SECTION 6 ACCIDENTAL RELEASE MEASURES**

**Personal precautions, protective equipment and emergency procedures**

See section 8

**Environmental precautions**

See section 12

**Methods and material for containment and cleaning up**

<b>Minor Spills</b>	Slippery when spilt. <ul style="list-style-type: none"> <li>▪ Remove all ignition sources.</li> <li>▪ Clean up all spills immediately.</li> <li>▪ Avoid breathing vapours and contact with skin and eyes.</li> <li>▪ Control personal contact with the substance, by using protective equipment.</li> </ul>
<b>Major Spills</b>	Slippery when spilt. Minor hazard. <ul style="list-style-type: none"> <li>▪ Clear area of personnel.</li> <li>▪ Alert Fire Brigade and tell them location and nature of hazard.</li> <li>▪ Control personal contact with the substance, by using protective equipment as required.</li> </ul> Remove all ignition sources.

Personal Protective Equipment advice is contained in Section 8 of the SDS.

**SECTION 7 HANDLING AND STORAGE**

**Precautions for safe handling**

<b>Safe handling</b>	<ul style="list-style-type: none"> <li>▪ Limit all unnecessary personal contact.</li> <li>▪ Wear protective clothing when risk of exposure occurs.</li> <li>▪ Use in a well-ventilated area.</li> </ul> Avoid contact with incompatible materials. acid chlorides <ul style="list-style-type: none"> <li>▪ <b>DO NOT allow clothing wet with material to stay in contact with skin</b></li> </ul>
<b>Other information</b>	<ul style="list-style-type: none"> <li>▪ Store in original containers.</li> <li>▪ Keep containers securely sealed.</li> <li>▪ No smoking, naked lights or ignition sources.</li> <li>▪ Store in a cool, dry, well-ventilated area.</li> </ul>

**Conditions for safe storage, including any incompatibilities**

<b>Suitable container</b>	<ul style="list-style-type: none"> <li>▪ Metal can or drum</li> <li>▪ Packaging as recommended by manufacturer.</li> <li>▪ Check all containers are clearly labelled and free from leaks.</li> </ul>
<b>Storage incompatibility</b>	<b>CARE:</b> Water in contact with heated material may cause foaming or a steam explosion with possible severe burns from wide scattering of hot material. Resultant overflow of containers may result in fire. Avoid storage with oxidisers

**SECTION 8 EXPOSURE CONTROLS / PERSONAL PROTECTION**

**Control parameters**

**OCCUPATIONAL EXPOSURE LIMITS (OEL)**


**INGREDIENT DATA**

Not Available

**EMERGENCY LIMITS**

Ingredient	Material name	TEEL-1	TEEL-2	TEEL-3
FUEL OIL	Not Available	Not Available	Not Available	Not Available

**Exposure controls**

<b>Appropriate engineering controls</b>	General exhaust is adequate under normal operating conditions.
<b>Personal protection</b>	
<b>Eye and face protection</b>	<ul style="list-style-type: none"> <li>▪ Safety glasses with side shields; or as required,</li> <li>▪ Chemical goggles.</li> <li>▪ Contact lenses may pose a special hazard; soft contact lenses may absorb and concentrate irritants. A written policy document, describing the wearing of lenses or restrictions on use, should be created for each workplace or task. This should include a review of lens absorption and adsorption for the class of</li> </ul>

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	<ul style="list-style-type: none"> <li>chemicals in use and an account of injury experience.</li> </ul>
<b>Skin protection</b>	See Hand protection below
<b>Hands/feet protection</b>	Wear chemical protective gloves, e.g. PVC. Wear safety footwear.
<b>Body protection</b>	See Other protection below
<b>Other protection</b>	<ul style="list-style-type: none"> <li>Overalls.</li> <li>Barrier cream</li> <li>Eyewash unit.</li> </ul>
<b>Thermal hazards</b>	Not Available

**Respiratory protection**

Type A-P Filter of sufficient capacity. (AS/NZS 1716 & 1715, EN 143:2000 & 149:2001, ANSI Z88 or national equivalent)

Where the concentration of gas/particulates in the breathing zone, approaches or exceeds the "Exposure Standard" (or ES), respiratory protection is required. Degree of protection varies with both face-piece and Class of filter; the nature of protection varies with Type of filter.

Required Minimum Protection Factor	Half-Face Respirator	Full-Face Respirator	Powered Air Respirator
up to 10 x ES	A-AUS P2	-	A-PAPR-AUS / Class 1 P2
up to 50 x ES	-	A-AUS / Class 1 P2	-
up to 100 x ES	-	A-2 P2	A-PAPR-2 P2 ^

^ - Full-face

A(All classes) = Organic vapours, B AUS or B1 = Acid gasses, B2 = Acid gas or hydrogen cyanide(HCN), B3 = Acid gas or hydrogen cyanide(HCN), E = Sulfur dioxide(SO2), G = Agricultural chemicals, K = Ammonia(NH3), Hg = Mercury, NO = Oxides of nitrogen, MB = Methyl bromide, AX = Low boiling point organic compounds(below 65 degC)

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**Information on basic physical and chemical properties**

<b>Appearance</b>	Black		
<b>Physical state</b>	Liquid	<b>Specific density (15°C)</b>	905-990
<b>Odour</b>	Hydrocarbon Odour	<b>Partition coefficient n-octanol / water</b>	Not Available
<b>Odour threshold</b>	Not Available	<b>Auto-ignition temperature (°C)</b>	Not Available
<b>pH (as supplied)</b>	Not Available	<b>Decomposition temperature</b>	Not Available
<b>Melting point / freezing point (°C)</b>	Not Available	<b>Viscosity (D445)</b>	Not Available
<b>Boiling Point (°C)</b>	>300 Deg C	<b>Molecular weight (g/mol)</b>	Not Applicable
<b>Flash point (°C)</b>	Min 60	<b>Taste</b>	Not Available
<b>Evaporation rate</b>	Not Available	<b>Compounds (VOC)</b>	Not Available
<b>Flammability</b>	Flammable liquid and vapor	<b>Oxidising properties</b>	Not Available
<b>Upper Explosive Limit (%)</b>	: 5% v/v	<b>Surface Tension (dyn/cm or mN/m)</b>	Not Available
<b>Lower Explosive Limit (%)</b>	0.5% v/v	<b>Volatile Component (%vol)</b>	Not Available
<b>Vapour pressure (mmHg)</b>	Not Available	<b>Gas group</b>	Not Available
<b>Solubility</b>	Negligible	<b>pH as a solution (1%)</b>	Not Available
<b>Vapour density (Air = 1)</b>	(Air = 1):>1	<b>VOC g/L</b>	Not Available

**SECTION 10 STABILITY AND REACTIVITY**

<b>Chemical Stability</b>	Stable under normal conditions of storage and handling
<b>Hazardous Decomposition Products</b>	<ul style="list-style-type: none"> <li>Thermal decomposition may result in the release of toxic and or irritating fumes including carbon monoxide and carbon dioxide.</li> </ul>
<b>Conditions to Avoid</b>	Heat, open flames, sparks and other sources of ignition
<b>Incompatibility</b>	Strong oxidizers
<b>Hazardous Polymerization</b>	Will not polymerize

**SECTION 11 TOXICOLOGICAL INFORMATION**

**Information on toxicological effects**

<b>Inhaled</b>	The material is not thought to produce either adverse health effects or irritation of the respiratory tract following inhalation (as classified by EC Directives using animal models). Nevertheless, adverse systemic effects have been produced following exposure of animals by at least one other route and good hygiene
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	practice requires that exposure be kept to a minimum and that suitable control measures be used in an occupational setting. Inhalation hazard is increased at higher temperatures. Not normally a hazard due to non-volatile nature of product
Ingestion	The material has <b>NOT</b> been classified by EC Directives or other classification systems as "harmful by ingestion". This is because of the lack of corroborating animal or human evidence.
Skin Contact	Open cuts, abraded or irritated skin should not be exposed to this material The material may accentuate any pre-existing dermatitis condition Entry into the blood-stream, through, for example, cuts, abrasions or lesions, may produce systemic injury with harmful effects. Examine the skin prior to the use of the material and ensure that any external damage is suitably protected.
Eye	Although the liquid is not thought to be an irritant (as classified by EC Directives), direct contact with the eye may produce transient discomfort characterised by tearing or conjunctival redness (as with windburn).
Chronic	Oil may contact the skin or be inhaled. Extended exposure can lead to eczema, inflammation of hair follicles, pigmentation of the face and warts on the soles of the feet.

SECTION 12 ECOLOGICAL INFORMATION

Toxicity

	ENDPOINT	TEST DURATION (HR)	SPECIES	VALUE	SOURCE
FUEL OIL	Not Applicable	Not Applicable	Not Applicable	Not Applicable	Not Applicable

**DO NOT discharge into sewer or waterways.**

[Mobility]Floats on water.[Persistence / Degradability]Not readily biodegradable.[Bioaccumulation]May contain components with the potential to bioaccumulate.

Persistence and degradability

Ingredient	Persistence: Water/Soil	Persistence: Air
	No Data available for all ingredients	No Data available for all ingredients

Bioaccumulative potential

Ingredient	Bioaccumulation
	No Data available for all ingredients

Mobility in soil

Ingredient	Mobility
	No Data available for all ingredients

SECTION 13 DISPOSAL CONSIDERATIONS

Waste treatment methods

Product / Packaging disposal	<ul style="list-style-type: none"> <li>DO NOT allow wash water from cleaning or process equipment to enter drains.</li> <li>It may be necessary to collect all wash water for treatment before disposal.</li> <li>In all cases disposal to sewer may be subject to local laws and regulations and these should be considered first.</li> <li>Where in doubt contact the responsible authority.</li> <li>Recycle wherever possible or consult manufacturer for recycling options.</li> <li>Consult State Land Waste Authority for disposal.</li> <li>Bury or incinerate residue at an approved site.</li> <li>Recycle containers if possible, or dispose of in an authorised landfill.</li> </ul>
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SECTION 14 TRANSPORT INFORMATION

Labels Required

Marine Pollutant	NO
HAZCHEM	Not Applicable

Land transport (ADG): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Air transport (ICAO-IATA / DGR): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Sea transport (IMDG-Code / GGVSee): NOT REGULATED FOR TRANSPORT OF DANGEROUS GOODS

Transport in bulk according to Annex II of MARPOL and the IBC code

Not Applicable

## FUEL OIL

### SECTION 15 REGULATORY INFORMATION

#### Safety, health and environmental regulations / legislation specific for the substance or mixture

##### FUEL OIL (68476-33-5.) IS FOUND ON THE FOLLOWING REGULATORY LISTS

Regulatory List	Component	CAS No
Inventory - Australia (AICS)	All component Listed	68476-33-5
Inventory - Canada Domestic Substance List	All component Listed	68476-33-5
Inventory – China	All component Listed	68476-33-5
Inventory – European IENECS Inventory	All component Listed	68476-33-5
Inventory - Japan (ENCS)	All component Listed	68476-33-5
Inventory – Korea Existing and Evaluated	All component Listed	68476-33-5
Inventory – Philippines Inventory (PICCS)	All component Listed	68476-33-5

### SECTION 16 OTHER INFORMATION

#### Other information

Classification of the preparation and its individual components has drawn on official and authoritative sources as well as independent review by the Chemwatch Classification committee using available literature references.

The SDS is a Hazard Communication tool and should be used to assist in the Risk Assessment. Many factors determine whether the reported Hazards are Risks in the workplace or other settings. Risks may be determined by reference to Exposures Scenarios. Scale of use, frequency of use and current or available engineering controls must be considered.

#### Definitions and abbreviations

PC—TWA: Permissible Concentration-Time Weighted Average  
PC—STEL: Permissible Concentration-Short Term Exposure Limit  
IARC: International Agency for Research on Cancer  
ACGIH: American Conference of Governmental Industrial Hygienists  
STEL: Short Term Exposure Limit  
TEEL: Temporary Emergency Exposure Limit,  
IDLH: Immediately Dangerous to Life or Health Concentrations  
OSF: Odour Safety Factor  
NOAEL :No Observed Adverse Effect Level  
LOAEL: Lowest Observed Adverse Effect Level  
TLV: Threshold Limit Value  
LOD: Limit Of Detection  
OTV: Odour Threshold Value  
BCF: BioConcentration Factors  
BEI: Biological Exposure Index

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