SAFETY DATA SHEET – Regular Kerosene

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier

Substance name: Regular Kerosene
MARPOL Annex I Category: Kerosenes
REACH Registration Number: 01-2119485517-27-0005

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

Relevant identified uses: Heating Oil
Transportation Fuel
Lamp Oil

Uses Advised Against: Uses other than those covered by the exposure scenarios appended to this Safety Data Sheet are not supported.

1.3 Details of the Supplier of the Safety Data Sheet

Supplier: Rix Petroleum Limited
Supplier address: 2 Humber Quays
Wellington Street
Hull
HU1 2BN
Telephone No: (Hull) 01482 224422
Email: sales@rix.co.uk

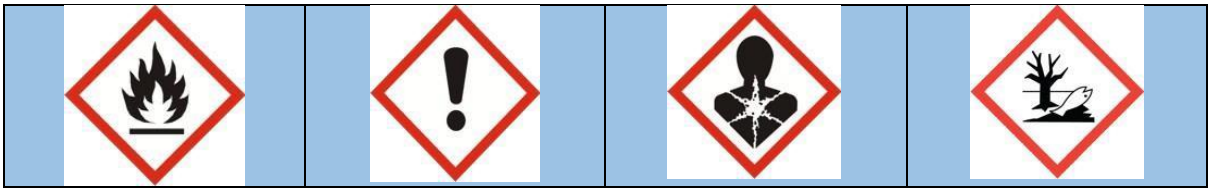
SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

CLP Classification (EC No 1272/2008)

H226 -- Flammable liquids -- Category 3
H304 -- Aspiration Hazard -- Category 1
H315 -- Skin corrosion/irritation -- Category 2
H336 -- Specific target organ toxicity (single exposure) -- Category 3
H411 -- Hazardous to the aquatic environment, chronic toxicity -- Category 2

2.2 Label Elements



DANGER
Flammable liquid and vapour
May be fatal if swallowed and enters airways
Causes skin irritation
May cause drowsiness or dizziness
Toxic to aquatic life with long lasting effects

P102 - Keep out of reach of children
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P301 + P310 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician
P331 - Do NOT induce vomiting

2.3 Other hazards

Does not meet the criteria for persistent, bioaccumulative and toxic (PBT) or very persistent, very bioaccumulative (vPvB) substances.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substance

Chemical Name	CASRN	EINECS	REACH Registration No.	Concentration[1]	CLP Classification[2]
Kerosine, petroleum	8008-20-6	232-366-4	01-2119485517-27	100	H304

[1] All concentrations are percent by weight unless ingredient is a gas. Gas concentrations are in percent by volume.

[2] Regulation EC 1272/2008.

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Eye Contact: If irritation or redness develops from exposure, flush eyes with clean water. If symptoms persist, seek medical attention.

Skin Contact: Remove contaminated shoes and clothing, and flush affected area(s) with large amounts of water. If skin surface is damaged, apply a clean dressing and seek medical attention. If skin surface is not damaged, cleanse affected area(s) thoroughly by washing with mild soap and water or a waterless hand cleaner. If irritation or redness develops, seek medical attention. Wash contaminated clothing before reuse.

Inhalation (Breathing): First aid is not normally required. If breathing difficulties develop, move victim away from source of exposure and into fresh air in a position comfortable for breathing. Seek immediate medical attention.

Ingestion (Swallowing): Aspiration hazard: Do not induce vomiting or give anything by mouth because this material can enter the lungs and cause severe lung damage. If victim is drowsy or unconscious and vomiting, place on the left side with the head down. If possible, do not leave victim unattended and observe closely for adequacy of breathing. Seek medical attention.

4.2 Most important symptoms and effects, both acute and delayed

While significant vapour concentrations are not likely, high concentrations can cause minor respiratory irritation, headache, drowsiness, dizziness, loss of coordination, disorientation and fatigue. Ingestion can cause irritation of the digestive tract, nausea, diarrhoea, and vomiting. Dry skin and possible irritation with repeated or prolonged exposure.

4.3 Indication of immediate medical attention and special treatment needed

Other Comments: none

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Dry chemical, carbon dioxide, or foam is recommended. Water spray is recommended to cool or protect exposed materials or structures. Carbon dioxide can displace oxygen. Use caution when applying carbon dioxide in confined spaces. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam. Water may be ineffective for extinguishment, unless used under favourable conditions by experienced fire fighters.

5.2 Special hazards arising from the substance or mixture

Unusual Fire & Explosion Hazards: Flammable. This material can be ignited by heat, sparks, flames, or other sources of ignition (e.g., static electricity, pilot lights, mechanical/electrical equipment, and electronic devices such as cell phones, computers, calculators, and pagers which have not been certified as intrinsically safe). Vapours may travel considerable distances to a source of ignition where they can ignite, flash back, or explode. May create vapour/air explosion hazard indoors,
in confined spaces, outdoors, or in sewers. This product will float and can be reignited on surface water. Vapours are heavier than air and can accumulate in low areas. If container is not properly cooled, it can rupture in the heat of a fire.

Hazardous Combustion Products: Combustion may yield smoke, carbon monoxide, and other products of incomplete combustion. Oxides of nitrogen and sulfur may also be formed.

5.3 Special protective actions for firefighters

For fires beyond the initial stage, emergency responders in the immediate hazard area should wear protective clothing. When the potential chemical hazard is unknown, in enclosed or confined spaces, a self contained breathing apparatus should be worn. In addition, wear other appropriate protective equipment as conditions warrant (see Section 8).

Isolate immediate hazard area and keep unauthorized personnel out. Stop spill/release if it can be done safely. Move undamaged containers from immediate hazard area if it can be done safely. Water spray may be useful in minimizing or dispersing vapours and to protect personnel. Avoid spreading burning liquid with water used for cooling purposes. Cool equipment exposed to fire with water, if it can be done safely.

See Section 9 for Flammable Properties including Flash Point and Flammable (Explosive) Limits

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Flammable. Spillages of liquid product will create a fire hazard and may form an explosive atmosphere. Keep all sources of ignition and hot metal surfaces away from spill/release if safe to do so. The use of explosion-proof electrical equipment is recommended. Stay upwind and away from spill/release. Avoid direct contact with material. For large spillages, notify persons downwind of the spill/release, isolate immediate hazard area and keep unauthorized personnel out. Wear appropriate protective equipment, including respiratory protection, as conditions warrant (see Section 8). See Sections 2 and 7 for additional information on hazards and precautionary measures.

6.2 Environmental precautions

Stop and contain spill/release if it can be done safely. Prevent spilled material from entering sewers, storm drains, other unauthorized drainage systems, and natural waterways. Use foam on spills to minimize vapours Use water sparingly to minimize environmental contamination and reduce disposal requirements. If spill occurs on water notify appropriate authorities and advise shipping of any hazard.

6.3 Methods and material for containment and cleaning up

Notify relevant authorities in accordance with all applicable regulations. Immediate clean-up of any spill is recommended. Dike far ahead of spill for later recovery or disposal. Absorb spill with inert material such as sand or vermiculite, and place in suitable container for disposal. If spilled on water remove with appropriate methods (e.g. skimming, booms or absorbents). In case of soil contamination, remove contaminated soil for remediation or disposal, in accordance with local regulations.

Recommended measures are based on the most likely spillage scenarios for this material; however local conditions and regulations may influence or limit the choice of appropriate actions to be taken.

SECTION 7: HANDLING AND STORAGE

7.1 Precautions for safe handling

Keep away from ignition sources such as heat/sparks/open flame – No smoking. Take precautionary measures against static discharge. No sparking tools should be used. Wear protective gloves/clothing and

eye/face protection. Wash thoroughly after handling. Use good personal hygiene practices and wear appropriate personal protective equipment (see section 8).

Flammable. May vaporise easily at ambient temperatures. The vapour is heavier than air and may create an explosive mixture of vapour and air. Beware of accumulation in confined spaces and low lying areas. Electrostatic charge may accumulate and create a hazardous condition when handling or processing this material. To avoid fire or explosion, dissipate static electricity during transfer by grounding and bonding containers and equipment before transferring material. The use of explosion-proof electrical equipment is recommended and may be required (see appropriate fire codes for specific bonding/grounding requirements). Open container slowly to relieve any pressure. Do not enter confined spaces such as tanks or pits without following proper entry procedures. Do not wear contaminated clothing or shoes. Keep contaminated clothing away from sources of ignition such as sparks or open flames.

The use of hydrocarbon fuel in an area without adequate ventilation may result in hazardous levels of incomplete combustion products (e.g. carbon monoxide, oxides of sulfur and nitrogen, benzene and other hydrocarbons) and/or dangerously low oxygen levels.

7.2 Conditions for safe storage, including any incompatibilities

Keep container(s) tightly closed and properly labelled. Use and store this material in cool, dry, well-ventilated areas away from heat, direct sunlight, hot metal surfaces, and all sources of ignition. Store only in approved containers. Post area "No Smoking or Open Flame." Keep away from any incompatible material (see Section 10). Protect container(s) against physical damage.

"Empty" containers retain residue and may be dangerous. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose such containers to heat, flame, sparks, or other sources of ignition. They may explode and cause injury or death. "Empty" drums should be completely drained, properly bunged, and promptly shipped to the supplier or a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with governmental regulations. Before working on or in tanks which contain or have contained this material, refer to appropriate guidance pertaining to cleaning, repairing, welding, or other contemplated operations. Outdoor or detached storage is preferred. Indoor storage should meet Country or Committee standards and appropriate fire codes.

7.3 Specific end use(s)

Refer to supplemental exposure scenarios if attached.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Control parameters

Occupational Exposure Limits			
Chemical Name	**ACGIH**	**UK-EH40**	**Other**
Kerosine, petroleum	TWA: 200 mg/m3 Skin	---	200 mg/m3 TWA8hr 100 mg/m3 TWA12hr 28 ppm TWA8hr 14 ppm TWA12hr

STEL = Short Term Exposure Limit (15 minutes); TWA = Time Weighted Average (8 hours); --- = No Occupational Exposure Limit

Relevant DNEL and PNEC:

Worker Derived No-Effect Level (DNEL)
Inhalation: Not applicable
Dermal: Not applicable

Consumer Derived No-Effect Level (DNEL)
Inhalation: Not applicable
Dermal: Not applicable
Ingestion: 18.8 mg/kgbw/day

Environmental Predicted No-Effect Concentration (PNEC): Not applicable

8.2 Exposure controls

Engineering controls: If current ventilation practices are not adequate to maintain airborne concentrations below the established exposure limits, additional engineering controls may be required.

Eye/Face Protection: The use of eye protection that meets or exceeds EN 166 is recommended to protect against potential eye contact, irritation, or injury. Depending on conditions of use, close fitting eye protection and a face shield may be necessary.

Skin/Hand Protection: The use of gloves impervious to the specific material handled that comply with EN 374 is advised to prevent skin contact. Users should check with manufacturers to confirm the breakthrough performance of their products. Depending on exposure and use conditions, additional protection may be necessary to prevent skin contact including use of items such as chemical resistant boots, aprons, arm covers, hoods, coveralls, or encapsulated suits. Suggested protective materials: Nitrile

Respiratory Protection: Where there is potential for airborne exposure above the exposure limit an approved air purifying respirator equipped with Type A, organic gases and vapour filters (as specified by the manufacturer) may be used.

A respiratory protection program that follows recommendations for the selection, use, care and maintenance of respiratory protective devices in EN 529:2005 should be followed whenever workplace conditions warrant a respirator's use. Air purifying respirators provide limited protection and cannot be used in atmospheres that exceed the maximum use concentration (as directed by regulation or the manufacturer's instructions), in oxygen deficient (less than 19.5 percent oxygen) situations, or under conditions that are immediately dangerous to life and health.

Other Protective Equipment: Eye wash and quick-drench shower facilities should be available in the work area. Thoroughly clean shoes and wash contaminated clothing before reuse.

Environmental Exposure Controls: Refer to Sections 6, 7, 12 and 13.

Suggestions provided in this section for exposure control and specific types of protective equipment are based on readily available information. Users should consult with the specific manufacturer to confirm the performance of their protective equipment. Specific situations may require consultation with industrial hygiene, safety, or engineering professionals.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES - TYPICAL

9.1 Information on basic physical and chemical properties

Data represent typical values and are not intended to be specifications. N/A = Not Applicable; N/D = Not Determined

Appearance: Colourless
Physical Form: Liquid
Odour: Mild paraffinic
Odour Threshold: N/D
pH: N/A
Melting/Freezing Point: < -47 °C
Initial Boiling Point/Range: 150 - 290 °C
Flash Point: > 38 °C
Evaporation Rate (nBuAc=1): N/D
Flammability (solid, gas): N/A
Upper Explosive Limits (vol % in air): 6.0
Lower Explosive Limits (vol % in air): 0.5
Vapour Pressure: 3 kPa @20°C
Relative Vapour Density (air=1): >1
Relative Density (water=1): 0.77-0.82 @ 15°C
Solubility (ies): Solubility in water: Negligible
Partition Coefficient (n-octanol/water) (Kow): N/D
Auto-ignition Temperature: 250 °C
Decomposition Temperature: N/D
Viscosity: 1.0-2.0 mm^2/s @ 20°C
Explosive Properties: N/D
Oxidising Properties: N/D

9.2 Other Information

Pour Point: < -25 °C

SECTION 10: STABILITY AND REACTIVITY

10.1 Reactivity Not chemically reactive.

10.2 Chemical stability Stable under normal ambient and anticipated conditions of use.

10.3 Possibility of hazardous reactions Hazardous reactions not anticipated.

10.4 Conditions to avoid: Avoid high temperatures and all sources of ignition. Prevent vapour accumulation.

10.5 Incompatible materials Avoid contact with strong oxidizing agents and strong reducing agents.

10.6 Hazardous decomposition products: Not anticipated under normal conditions of use.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on Toxicological Effects of Substance/Mixture

Substance / Mixture

Acute Toxicity	Hazard	Additional Information	LC50/LD50 Data
Inhalation	Unlikely to be harmful		>5.2 mg/L (mist) (rat)
Dermal	Unlikely to be harmful		>2 g/kg (rabbit)
Oral	Unlikely to be harmful		>5 g/kg (rat)

Aspiration Hazard: May be fatal if swallowed and enters airways.

Skin Corrosion/Irritation: Causes skin irritation. Repeated exposure may cause skin dryness or cracking.

Serious Eye Damage/Irritation: Causes mild eye irritation.

Skin Sensitization: Not expected to be a skin sensitizer.

Respiratory Sensitization: No information available.

Specific Target Organ Toxicity (Single Exposure): May cause drowsiness and dizziness.

Specific Target Organ Toxicity (Repeated Exposure): Not expected to cause organ effects from repeated exposure.

Carcinogenicity: Not expected to cause cancer. Petroleum middle distillates have been shown to cause skin tumours in mice following repeated and prolonged skin contact. Follow-up studies have shown that these tumours are produced through a non-genotoxic mechanism associated with frequent cell damage and repair, and that they are not likely to cause tumours in the absence of prolonged skin irritation.

Germ Cell Mutagenicity: Not expected to cause heritable genetic effects.

Reproductive Toxicity: Not expected to cause reproductive toxicity.

SECTION12: ECOLOGICAL INFORMATION

12.1 Toxicity

Acute aquatic toxicity studies on samples of jet fuel and kerosine streams show acute toxicity values greater than 1 mg/L and mostly in the range 1-100 mg/L. These tests were carried out on water-accommodated fractions, in closed systems to prevent evaporative loss. Results are consistent with the predicted aquatic toxicity of these substances based on their hydrocarbon composition. Kerosines should be regarded as toxic to aquatic organisms, with the potential to cause long term adverse effects in the aquatic environment.

12.2 Persistence and degradability

The hydrocarbons in this material are not readily biodegradable but are regarded as inherently biodegradable since their hydrocarbon components can be degraded by microorganisms.

Persistence per IOPC Fund definition: Non-Persistent

12.3 Bioaccumulative potential

Hydrocarbon constituents of kerosine show measured or predicted Log Kow values ranging from 3 to 6 and above and therefore would be regarded as having the potential to bioaccumulate. In practice, metabolic processes may reduce bioconcentration.

12.4 Mobility in soil and environmental fate

On release to water, hydrocarbons will float on the surface and since they are sparingly soluble, the only significant loss is volatilization to air. It is possible that some of the higher molecular weight hydrocarbons will be adsorbed on sediment. Biodegradation in water is a minor loss process. In air, these hydrocarbons are photodegraded by reaction with hydroxyl radicals with half-lives varying from 0.1 to 0.7 days.

12.5 Results of PBT and vPvB Assessment

Not a PBT or vPvB substance.

12.6 Other Adverse Effects

None anticipated.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

European Waste Code: 13 07 03* other fuels (including mixtures)

This material, if discarded as produced, would be considered as hazardous waste pursuant to Directive 2008/98/EC on hazardous waste, and subject to the provisions of that Directive unless Article 1(5) of that Directive applies. This code has been assigned based upon the most common uses for this material and may not reflect contaminants resulting from actual use. Waste generators/producers are responsible for assessing the actual process used when generating the waste and it's contaminants in order to assign the proper waste disposal code.

Disposal must be in accordance with Directive 2008/98/EC and other applicable national or regional provisions, and based upon material characteristics at time of disposal. For incineration of waste, follow Directive 2000/76/EC. For landfill of waste, follow Directive 1999/31/EC. Product is suitable for burning in an enclosed controlled burner for fuel value if >5000 BTU, or disposal by supervised incineration at very high temperatures to prevent formation of undesirable combustion products. Follow Directive 2000/76/EC.

Empty Containers: Container contents should be completely used and containers emptied prior to discard.

Empty drums should be properly sealed and promptly returned to a drum reconditioner. All containers should be disposed of in an environmentally safe manner and in accordance with applicable regulations.

SECTION14: TRANSPORT INFORMATION

14.1 UN number UN1223

14.2 UN proper shipping name HEATING OIL, LIGHT

14.3 Transport hazard class(es) 3

14.4 Packing group III

14.5 Environmental hazards Marine pollutant - Environmentally Hazardous

14.6 Special precautions for user **If transported in bulk by marine vessel in international waters, product is being carried under the scope of MARPOL Annex I.**

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Not applicable

SECTION 15: REGULATORY INFORMATION

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

EC 1272/2008 - Classification, labelling and packaging of substances and mixtures
EN166:2002 Eye Protection
EN 529:2005 Respiratory Protective devices
BS EN 374-1:2003 Protective gloves against chemicals and micro-organisms
Workplace Exposure Limits, EH40/2005, Control of Substances Hazardous to Health
Directive 2008/98/EC (Waste Framework Directive)
Directive 2000/76/EC on incineration of waste
Directive 1999/31/EC on landfill of waste

Export Rating: NLR (No License Required)

15.2 Chemical Safety Assessment

A chemical safety assessment has been carried out for the substance/mixture.

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SECTION 16: OTHER INFORMATION

Date of Issue: 10-Aug-2015
Revised Sections or Basis for Revision: Periodic review and update
Precautionary Statement(s) (Section 2)
Environmental hazards (Section 12)

Ref P66: 815896
Language: English
List of Relevant Hazard Statements:
H226: Flammable liquid and vapour
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
R10: Flammable..

Regulatory Basis of Classification

CLP Classification (EC No 1272/2008) Regulatory Basis
H226 -- Flammable liquids -- Category 3 Based on component information.
H304 -- Aspiration Hazard -- Category 1 Based on component information.
H315 -- Skin corrosion/irritation -- Category 2 Based on component information.
H336 -- Specific target organ toxicity (single exposure) -- Category 3 Based on component information.
H411 -- Hazardous to the aquatic environment, chronic toxicity -- Category 2 Based on component information.

Guide to Abbreviations:
ACGIH = American Conference of Governmental Industrial Hygienists; ADR = Agreement on Dangerous Goods by Road; BMGV = Biological Monitoring Guidance Value; CASRN = Chemical Abstracts Service Registry Number; CEILING = Ceiling Limit; EINECS - European Inventory of Existing Commercial Chemical Substances; EPA = [US] Environmental Protection Agency; Germany-TRGS = Technical Rules for Dangerous Substances; IARC = International Agency for Research on Cancer; ICAO/IATA = International Civil Aviation Organization / International Air Transport Association; INSHT = National Institute for Health and Safety at Work; IMDG = International Maritime Dangerous Goods; Irland-HSA = Ireland's National Health and Safety Authority; LEL = Lower Explosive Limit; MARPOL = Marine Pollution; N/A = Not Applicable; N/D = Not Determined; NTP = [US] National Toxicology Program; PBT = Persistent, Bioaccumulative and Toxic; RID = Regulations Concerning the International Transport of Dangerous Goods by Rail; STEL = Short Term Exposure Limit; TLV = Threshold Limit Value; TRGS 903 = Technical rules for hazardous substances; TWA = Time Weighted Average; UEL = Upper Explosive Limit; UK-EH40 = United Kingdom EH40/2005 OEL; vPvB = very Persistent, very Bioaccumulative