Rix Petroleum Ltd

Safety Data Sheet

Renewable diesel, hydrotreated vegetable oil

Section 1: Identification of the substance / mixture and of the Company / undertaking

1.1 Product identifier

Commercial Product name: Renewable diesel
Product Code: ID13898
REACH registration numbers: 01-2119450077-42-0000
REACH registration notes: 01-2119450077-42-0000 / -0001 / -0002, and 01-0000020119-75
Substance name: Renewable hydrocarbon (diesel type fraction)

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

1.2.1 Identified uses:

Formulation and repackaging of substances and mixtures (ES02)
Distribution of substances (ES 04)
Use as an intermediate (ES 05)
Use as a fuel (ES 06, 14, 23)

1.3 DETAILS OF SUPLIER OF Safety Data sheet

1.3.1	Supplier	Rix Petroleum
	Address:	Two Humber Quays
		Wellington Street West
		Hull
		HU1 2BN
		UK
	Telephone:	+44 (0)1482 838383
	Email	sales@rix.co.uk

1.4 Emergency Telephone number

Telephone number +44 (0)1482 838383

Section 2: Hazard identification

2.1 Classification of the substance or mixture

Classification (Regulation EC 1272/2008)

Physical hazards	Not classified
Health hazards	Asp. Tox. 1 H304: May be fatal if swallowed and enters airways.
Environmental hazards	Not classified

2.2 Label elements

Hazard pictograms:

Signal word: Danger

Hazard Statements: H304 May be fatal if swallowed and enters airways.

Precautionary statements

P301+P310	If SWALLOWED: immediately call a POISON CENTRE / doctor.
P331	Do NOT induce vomiting.
P501	Dispose of contents and container in accordance with local and national regulations.

Supplementary label information

EUH066 Repeated exposure may cause skin dryness or cracking.

Contains Renewable hydrocarbon (diesel type fraction)

2.3 Other hazards

Combustible liquid. Risk of soil and ground water contamination.

Section 3: Composition / Information on ingredients

3.2 Mixtures

Renewable hydrocarbon (diesel type fraction).	**ca. 100%**
CAS number: -	REACH registration number: 01-211945007-42-XXXX
Classification	Asp. Tox. 1 – H304

The full text for all R-Phrases and Hazard Statements are Displayed in Section 16

Other information

Mixture of renewable raw material fuel and additives., Contains middle distillate-range iso and n-paraffinic hydrocarbons., Total aromatics at maximum 1,0 Weight %., Renewable hydrocarbons (diesel type fraction): REACH Nr: 01-2119450077-42-0000 / -0001 / -0002., Identity outside the EU (CAS number and name of the substance): Alkanes, C10-20- branched and linear, CAS 928771-01-1.

Section 4: First Aid Measure

4.1 Description of first aid measures.

Inhalation

Unlikely to be hazardous by inhalation because of the low vapour pressure of the product at ambient temperature. If spray/mist has been inhaled, proceed as follows. Remove person to fresh air and keep comfortable for breathing. Get medical attention if symptoms are severe or persist.

Ingestion

Do not induce vomiting. Get medical attention immediately.

Skin contact

Remove contaminated clothing immediately and wash skin with soap and water. Get medical attention if irritation persists after washing.

Eye contact

Rinse immediately with plenty of water. Remove contact lenses if present and easy to do. Continue rinsing. Get medical attention if irritation persists after washing.

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

General information

Repeated exposure may cause skin dryness or cracking. Spray/mists may cause respiratory tract irritation. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

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

Notes for the doctor: Treat symptomatically.

Section 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media: 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.

Specific hazards

Combustible liquid. Containers can burst violently or explode when heated, due to excessive pressure build-up. **Hazardous combustion products** Carbon dioxide (CO_2). Carbon monoxide (CO).

5.3. Advice for firefighters.

Protective actions during firefighting

Cool containers exposed to heat with water spray and remove them from the fire area if it can be done without risk.

Special protective equipment for firefighters

Wear positive-pressure self-contained breathing apparatus (SCBA) and appropriate protective clothing.

Section 6: Accidental release measures

6.1 Personal precautions, protective equipment, and emergency procedures.

Personal precautions

Wear adequate protective equipment at all operations.

For emergency responders

Prevent unauthorized access. Eliminate all ignition sources if safe to do so. Take precautionary measures against static discharge.

6.2. Environmental precautions

Environmental precautions

Avoid release to the environment. Stop leak if safe to do so. Avoid the spillage or runoff entering drains, sewers, or watercourses. Inform the relevant authorities if environmental pollution occurs (sewers, waterways, soil, or air). Risk of soil and ground water contamination.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up

Immediately start clean-up of the liquid and contaminated soil. Contain spillage with sand, earth, or other suitable non-combustible material. Pay attention to the fire and health hazards caused by the product.

6.4. Reference to other sections

Reference to other sections.

For personal protection, see Section 8.

Section 7: Handling and Storage

7.1. Precautions for safe handling

Usage precautions

Avoid heat, flames, and other sources of ignition. Take precautionary measures against static discharges. Use only outdoors or in a well-ventilated area. Avoid inhalation of vapours and contact with skin and eyes. Use personal protective equipment and/or local ventilation when needed. Do not eat, drink, or smoke when using this product. Wash hands and any other contaminated areas of the body with soap and water before leaving the work site. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

7.2. Conditions for safe storage, including any incompatibilities

Storage precautions

Flammable liquid storage. Store in accordance with local regulations. Store in a demarcated bunded area to prevent release to drains and/or watercourses. Only store in correctly labelled containers. Use containers made of the following materials: Carbon steel. Stainless steel.

7.3. Specific end use(s)

Specific end use(s)

Not known.

Section 8: Exposure controls / personal protection

8.1 Control parameters

Ingredient comments

The individual limit values can be applied for the hydrocarbons. Diesel fuel as total hydrocarbons; ACGIH TLV®-TWA (8h) 100 mg/m^3 (IFV).

PNEC Not available.

Renewable hydrocarbons (diesel type fraction)

DNEL

Workers - Inhalation; Long term systemic effects: 147 mg/m^3
Workers - Dermal; Long term systemic effects: 42 mg/kg/day
Consumer - Inhalation; Long term systemic effects: 94 mg/m^3
Consumer - Dermal; Long term systemic effects: 18 mg/kg/day

8.2. Exposure controls

Appropriate engineering controls

Provide adequate ventilation. Use personal protective equipment and/or local ventilation when needed. Handle in accordance with good industrial hygiene and safety practice. During tank operations follow special instructions (risk of oxygen displacement and hydrocarbons).

Eye/face protection Spectacles.

Hand protection

Wear protective gloves. It is recommended that gloves are made of the following material: Nitrile rubber. Neoprene. Polyvinyl chloride (PVC). The breakthrough time for any glove material may be different for different glove manufacturers. Protective gloves according to standard EN 374. Change protective gloves regularly.

Other skin and body protection

Protective clothing when needed. Wear anti-static protective clothing if there is a risk of ignition from static electricity.

Respiratory protection

Respiratory protection must be used if the airborne contamination exceeds the recommended occupational exposure limit. Wear a respirator fitted with the following cartridge: Combination filter, type A2/P2. Filter must be changed often enough. Gas and combination filter cartridges should comply with European Standard EN14387. At high concentrations a breathing apparatus must be used (self-contained or fresh air hose breathing apparatus).

Environmental exposure controls

Store in a demarcated bunded area to prevent release to drains and/or watercourses.

Section 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance	Liquid
Colour	Colourless, clear.
Odour	Mild
Odour threshold	Data not available
pH	Not applicable
Melting point	Pour point < -20°C @ 1013 hPa (BS4633, EC A1)
Initial Boiling point / range	180 – 320°C (EN ISO 3405)
Flash point	>61°C (EN ISO 2719, EC A9)

Evaporation rate	Data not available
Upper / lower flammability or explosion limit	-
Vapour pressure	0.087kPa @25°C (EC A4)
Vapour density	-
Relative Density	0.77 – 0.79 @ 15/4°C (EN ISO 12185, EC A3)
Solubilities:	Insoluble in water. ~ 0,075 mg/l water @ 25°C (calculated) Soluble in the following materials: Methanol. Hydrocarbons.
Partition coefficient	Log Kow: >6.5 (EC A8)
Autoignition temperature	204°C (EC A15)
Decomposition Temperature	-
Viscosity	Kinematic viscosity 4.0 mm^2/s @ 20°C 2.6 mm^2/s @ 40°C (OECD 114) Dynamic viscosity ≤ 5 mPa s @ 20°C </= 5mPas at 20°C.
Explosive properties	Not considered to be explosive. (EC A14)
Oxidising properties	Does not meet the criteria for classification as oxidising.

9.2 Other information Not known

Section 10: Stability and reactivity

10.1. Reactivity

Reactivity There are no known reactivity hazards associated with this product.

10.2. Chemical stability

Stability Stable at normal ambient temperatures and when used as recommended.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions No potentially hazardous reactions known.

10.4. Conditions to avoid

Conditions to avoid Keep away from heat, sparks, and open flame.

10.5. Incompatible materials

Materials to avoid Oxidising agents.

10.6. Hazardous decomposition products

Hazardous decomposition products

Does not decompose when used and stored as recommended.

Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicological effects Based on available data the classification criteria are not met.

Skin corrosion/irritation

Skin corrosion/irritation

Based on available data the classification criteria are not met. (EC B4) Repeated exposure may cause skin dryness or cracking. The product irritates mucous membranes and may cause abdominal discomfort if swallowed. May cause respiratory system irritation.

Serious eye damage/irritation

Serious eye damage/irritation Based on available data the classification criteria are not met. (EC B5)

Skin sensitisation

Skin sensitisation Based on available data the classification criteria are not met. (EC B6)

Germ cell mutagenicity

Genotoxicity - in vitro

Based on available data the classification criteria are not met. (EC B10, B13/14 & B17**).**

Carcinogenicity

Carcinogenicity Based on available data the classification criteria are not met.

Reproductive toxicity

Reproductive toxicity - fertility

Based on available data the classification criteria are not met. (OECD 416)

Specific target organ toxicity - single exposure

STOT - single exposure Not classified as a specific target organ toxicant after a single exposure.

Specific target organ toxicity - repeated exposure

STOT - repeated exposure Based on available data the classification criteria are not met. (OECD 408)

Aspiration hazard

Aspiration hazard

May be fatal if swallowed and enters airways. Entry into the lungs following ingestion or vomiting may cause chemical pneumonitis.

Toxicological information on ingredients.

Renewable hydrocarbons (diesel type fraction)

Acute toxicity - oral

Notes (oral LD_{50}) LD_{50} >2000 mg/kg, Oral, Rat (EC B1 tris)

Acute toxicity - dermal

Notes (dermal LD_{50}) LD_{50} > 2000 mg/kg, Dermal, Rat (EC B3)

Section 12: Ecological information

12.1. Toxicity

Toxicity Based on available data the classification criteria are not met.

Ecological information on ingredients.

Renewable hydrocarbons (diesel type fraction)

Acute aquatic toxicity

Acute toxicity – fish LL_{50}, 96 hours: > 1000 mg/l,
WAF (OECD 203)

Acute toxicity - aquatic invertebrates

EL50, 48 hours: > 100 mg/l,
WAF (OECD 202)

Acute toxicity - aquatic plants EL50, 72 hours: > 100 mg/l, Algae
WAF (OECD 201)

Acute toxicity - microorganisms EC_{50}, 30-180 minutes: > 1000 mg/l, Micro-organisms (wastewater sludge) (OECD 209)

Chronic aquatic toxicity

Chronic toxicity - aquatic invertebrates

NOEC, 21 days: 1 mg/l,
LOEC, 21 days: 3,2 mg/l,
WAF (OECD 211)
Sediment organisms
NOEC, 10 days: 373 mg/kg,
LOEC, 10 days: 1165 mg/kg,
LC_{50}, 10 days: 1200 mg/kg,
(OSPAR Protocols, Part A: Sediment Bioassay, 2005)

12.2. Persistence and degradability

Stability (hydrolysis) No significant reaction in water.

Biodegradation Rapidly degradable (OECD 301B).

Ecological information on ingredients.

Renewable hydrocarbons (diesel type fraction)

Biodegradation Rapidly degradable (OECD 301B).

12.3. Bioaccumulative potential

Bioaccumulative potential Possibly bioaccumulative.

Partition coefficient log Kow: > 6.5 (EC A8)

12.4. Mobility in soil

Mobility Evaporates slowly. The product has poor water-solubility. The product contains substances which are bound to particulate matter and are retained in soil. Log Koc > 5.6 (EC C19).

12.5. Results of PBT and vPvB assessment

Results of PBT and vPvB assessment

This product does not contain any substances classified as PBT or vPvB.

12.6. Other adverse effects

Other adverse effects Not known.

Section 13: Disposal considerations

13.1. Waste treatment methods

Disposal methods

Dispose of waste to licensed waste disposal site in accordance with the requirements of the local Waste Disposal Authority. When handling waste, the safety precautions applying to handling of the product should be considered. Care should be taken when handling emptied containers that have not been thoroughly cleaned or rinsed out. Product residues retained in emptied containers can be hazardous. Waste packaging should be collected for reuse or recycling.

Section 14: Transport information

Sea transport notes

This cargo is considered an Energy-rich fuel and effective 1 January 2019 should be carried subject to Annex I of MARPOL, see Annex 12 of MEPC.2/Circ.24. Please also refer to MEPC.1/Circ.879 - GUIDELINES FOR THE CARRIAGE OF ENERGY-RICH FUELS AND THEIR BLENDS

14.1. UN number

UN No. (ADR/RID) 1202

UN No. (IMDG) Not classified under IMDG.

14.2. UN proper shipping name

Proper shipping name (ADR/RID)

UN 1202 DIESEL FUEL 14.3.

Transport hazard class(es)

ADR/RID class 3

ADN subsidiary risk F (floater)

14.4. Packing group

ADR/RID packing group III

14.5. Environmental hazards

Environmentally hazardous substance/marine pollutant No.

14.6. Special precautions for user

Hazard Identification Number (ADR/RID) 30

Tunnel restriction code (D/E)

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code

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

National regulations UK REACH Registration number: UK-01-9638319484-0-XXXX. Only Representative UK: Penman Consulting Limited 41, Aspect House, Waylands Avenue, Grove Business Park, Wantage, Oxon, OX12 9FF, United Kingdom; Telephone: 01367 718474, Email: pcltd41@penmanconsulting.com. Location of manufacture: Neste Rotterdam Refinery, the Netherlands.

EU legislation Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH) (as amended).
Commission Regulation (EU) No 2015/830 of 28 May 2015.
Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures (as amended).

15.2. Chemical safety assessment

A chemical safety assessment has been carried out.

SECTION 16: Other information

Abbreviations and acronyms used in the safety data sheet

DNEL = Derived No-Effect Level
PNEC = Predicted No-Effect Concentration
WAF = Water Accommodated Fraction

Key literature references and sources for data

Regulations, databases, literature, own research. Chemical Safety Report Renewable hydrocarbons (diesel type fraction), 2017.

Revision comments

Updated, sections: 15.1. NOTE: Lines within the margin indicate significant changes from the previous revision.

Revision date 10/01/2022
Supersedes date 10/10/2018
SDS number 20220101
Hazard statements in full H304 May be fatal if swallowed and enters airways

Further information

Training advice:	Provide adequate information, instruction, and training for operators.
Other information:	This product is intended for use in closed systems only. The substance does not fulfil all screening criteria for persistence, bioaccumulation and toxicity and hence is not considered to be PBT or vPvB.
Sources of key data used to compile the Safety Data Sheet:	The quoted data are from, but not limited to, one or more sources of information (e.g., toxicological data from Shell Health Services, material suppliers' data, CONCAWE, EU IUCLID date base, EC 1272 regulation, etc).

Identified Uses according to the Use Descriptor System

Uses – Worker.
Title: -Industrial

Formulation & (re)packaging of substances and mixtures.
Uses as a fuel.

Uses – Worker.
Title : -Professional
Use as a fuel.

Uses – Consumer.
Title : -Consumer
Use as a fuel.

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety, and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product.

Renewable Diesel Fuel Quality Specification

			FUEL Standards		
		units	EN 15940:2016 (Class A)		Test method
			min	max	
1	**Cetane number**		70.0	-	EN 15195 / prEN16906 / EN 5165
2	**Density**	kg/m^3	765.0	800.0	EN 12185 EN 3675
3	**Flash Pt.**	°C	>55	-	EN 2719
4	**Viscosity at 40°C**	mm^2/s	2.00	4.50	EN 3104
5	**Initial bp**	°C		Report	EN 3405
6	**recovery at 250°C**	%(v/v)	-	<65	EN3924
7	**recovery at 350°C**	%(v/v)	85.0	-	ISO 3405
8	**95% recovery**	°C	-	360.0	ISO 3405
9	**Lubricity (wsd 1,4) at 60°C**	µm	-	460.0	EN 12156-1
10	**FAME content**	%(v/v)	-	7.0	EN 14078
11	**Manganese (Mn)**	mg/kg	-	2.0	EN 16576
12	**Total aromatics**	% (m/m)	-	1.1	EN 12916
13	**S content**	mg/kg	-	5.0	EN 20846 /EN 20884
14	**C residue (10% distillation)**	% (m/m)	-	0.3	ISO 10370
15	**Ash Content**	% (m/m)	-	0.01	ISO 6245
16	**Water Content**	mg/kg	-	200.0	ISO 12937
17	**Total Contamination**	mg/kg	-	24.0	EN 12662
18	**Cu Strip corrosion (3h at 50°C)**		-	Class 1	ISO 2160
19	**Oxidation Stability**	g/m^3	-	25.0	ISO 12205
20	**Oxidation Stability**	h	20.0		ISO 15751
21	**Cloud point**	°C	-	-5(S) -15 (W)	EN 23015
22	**CFPP**	°C	-	-5(S) -15 (W)	EN 166 / EN16329