Safety Data Sheet

according to Regulation (EC) No. 453/2010



Date of issue: 01/10/2018 Version: 1.0 Revision date:

SECTION 1: Identification of the substance/mixture and of the company/undertaking

Product identifier

Product form : Mixture

Product name : Gasoil, Marine Gasoil

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

1.2.1. Relevant identified uses

Use of the substance/mixture : Fuels

Uses advised against

Solvent, cleaning agent, skin cleanser

Details of the supplier of the safety data sheet

Greenergy Fuels Limited High Holborn London WC1V 7BD T 0207 404 7700 msds-info@greenergy.com

Emergency telephone number

Emergency number : +44 (0)1235 836 100

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SECTION 2: Hazards identification

Classification of the substance or mixture

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Flam. Liq. 3 H226 Acute Tox. 4 (Inhalation) H332 Skin Irrit. 2 H315 Carc. 2 H351 STOT RE 2 H373 H304 Asp. Tox. 1 Aquatic Chronic 2 H411

Full text of H-phrases: see section 16

Classification according to Directive 67/548/EEC or 1999/45/EC

Carc.Cat.3; R40

Xn; R20 Xn; R65 Xi; R38 N: R51/53

Full text of R-phrases: see section 16

Adverse physicochemical, human health and environmental effects

No additional information available

Label elements

Labelling according to Regulation (EC) No. 1272/2008 [CLP]

Hazard pictograms (CLP)









GHS02 GHS07

GHS08

GHS09

Signal word (CLP) : Danger

Hazard statements (CLP) : H226 - Flammable liquid and vapour

H304 - May be fatal if swallowed and enters airways

H315 - Causes skin irritation H332 - Harmful if inhaled

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Precautionary statements (CLP)

H351 - Suspected of causing cancer

H373 - May cause damage to organs through prolonged or repeated exposure

H411 - Toxic to aquatic life with long lasting effects

: P201 - Obtain special instructions before use

P202 - Do not handle until all safety precautions have been read and understood

P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking

%

Classification according to

Aquatic Chronic 2, H411

P233 - Keep container tightly closed

Product identifier

P240 - Ground/bond container and receiving equipment

P241 - Use explosion-proof electrical/ventilating/lighting/... equipment

2.3. Other hazards

No additional information available

SECTION 3: Composition/information on ingredients

3.1. Substance

Not applicable

Name

3.2. Mixture

Name	Product identifier	%	Directive 67/548/EEC
Fuels, diesel	(CAS No) 68334-30-5 (EC no) 269-822-7 (EC index no) 649-224-00-6 (REACH-no) 01-2119484664-27	50 - 100	Carc.Cat.3; R40 Xn; R20 Xn; R65 Xi; R38 N; R51/53
Kerosine (petroleum), hydrodesulfurized, Kerosine - unspecified, [A complex combination of hydrocarbons obtained from a petroleum stock by treating with hydrogen to convert organic sulfur to hydrogen sulfide which is removed. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 150 °C to 290 °C (302 °F to 554 °F).]	(CAS No) 64742-81-0 (EC no) 265-184-9 (EC index no) 649-423-00-8 (REACH-no) 01-2119462828-25	< 30	R10 Xn; R65 Xi; R38 N; R51/53
Kerosine (petroleum)	(CAS No) 8008-20-6 (EC no) 232-366-4 (EC index no) 649-404-00-4 (REACH-no) 01-2119485517-27	< 30	R10 Xn; R65 Xi; R38 N; R51/53
Distillates (Fischer-Tropsch), C8-26, branched and linear	(CAS No) 848301-67-7 (EC no) 481-740-5 (REACH-no) 01-0000020119-75	0 - 25	Xn; R65 R66
Kerosine, full range, C8-16-branched and linear	(CAS No) 848301-66-6 (EC no) 481-670-5;619-567-6 (REACH-no) 01-0000020121-90	0 - 25	Xn; R65 R10 R66
Distillates (Fischer-Tropsch), heavy, C18-50-branched, cyclic and linear	(CAS No) 848301-69-9 (EC no) 482-220-0 (REACH-no) 01-000020163-82	0 - 20	Xn; R65
Distillates, petroleum, heavy hydrocracked	(CAS No) 64741-76-0 (EC no) 265-077-7 (EC index no) 649-453-00-1 (REACH-no) 01-2119486951-26	0 - 10	Xn; R65
Name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Fuels, diesel	(CAS No) 68334-30-5 (EC no) 269-822-7 (EC index no) 649-224-00-6 (REACH-no) 01-2119484664-27	50 - 100	Flam. Liq. 3, H226 Acute Tox. 4 (Inhalation:dust,mist), H332 Skin Irrit. 2, H315 Carc. 2, H351 STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Kerosine (petroleum), hydrodesulfurized, Kerosine - unspecified, [A complex combination of hydrocarbons obtained from a petroleum stock by treating with hydrogen to convert organic sulfur to hydrogen sulfide which is removed. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 150 °C to 290 °C (302 °F to 554 °F).]	(CAS No) 64742-81-0 (EC no) 265-184-9 (EC index no) 649-423-00-8 (REACH-no) 01-2119462828-25	< 30	Flam. Liq. 3, H226 Skin Irrit. 2, H315 STOT SE 3, H336 Asp. Tox. 1, H304 Aquatic Chronic 2, H411
Kerosine (petroleum)	(CAS No) 8008-20-6 (EC no) 232-366-4 (EC index no) 649-404-00-4 (REACH-no) 01-2119485517-27	< 30	Flam. Liq. 3, H226 Asp. Tox. 1, H304 Skin Irrit. 2, H315 STOT SE 3, H336

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Full text of R- and H-phrases: see section 16

SECTION 4: First aid measures

4.1.	Description	of first aid	moscuroc

First-aid measures after inhalation

: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Get immediate medical advice/attention.

First-aid measures after skin contact

: Rinse immediately with plenty of water for 15 minutes. If skin irritation occurs: Get medical advice/attention. If high-pressure injuries occur, immediately seek professional medical attention . Do not wait for symptoms to develop.

First-aid measures after eye contact

: In case of contact with eyes flush immediately with plenty of flowing water for 10 to 15 minutes holding eyelids apart and consult an ophthalmologist. Remove contact lenses, if present and easy to do. Continue rinsing. If redness, burning, blurred vision or swelling occur, transport to nearest medical facility for additional treatment.

First-aid measures after ingestion

If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration. Never give anything by mouth to an unconscious person. May result in aspiration into the lungs, causing chemical pneumonia. Do NOT induce vomiting. Get immediate medical advice/attention.

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

Symptoms/injuries after inhalation

: Excessive concentrations may cause nervous system depression, headache, and weakness leading to unconsciousness. Narcosis. Cyanosis may occur (lips and fingernails turn blue). Risk of lung oedema. Proteinuria.

Symptoms/injuries after skin contact

Symptoms/injuries after ingestion

: Repeated exposure may cause skin dryness or cracking.

: May result in aspiration into the lungs, causing chemical pneumonia. If material enters lung, signs and symptoms may include coughing, chocking, wheezing, difficulty in breathing, chest congestion, shortness of breath and/or fever. Depression of the central nervous system, headaches, dizziness, drowsiness, loss of coordination.

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

Treat symptomatically.

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media

: carbon dioxide (CO2), water, dry chemical powder.

Unsuitable extinguishing media

: Do not use water jet. Simultaneous use of foam and water on the same surface is to be avoided as water destroys the foam.

5.2. Special hazards arising from the substance or mixture

Fire hazard

: Vapours are heavier than air and may travel considerable distance to an ignition source and flash back to source of vapours. Flammable vapours may be present even at temperatures below the flash point. Will float and can be reignited on water surface.

Explosion hazard
Hazardous decomposition products in case of

Vapours can form explosive mixtures with air.Carbon monoxide. Carbon dioxide. Sulphur oxides.

fire

5.3. Advice for firefighters

Firefighting instructions

: Move undamaged containers from immediate hazard area if it can be done safely. Cool down the containers exposed to heat with a water spray. Prevent fire-fighting water from entering environment.

Protective equipment for firefighters : In case of fire: Wear self-contained breathing apparatus.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

6.1.1. For non-emergency personnel

Protective equipment : In case of fire: Wear self-contained breathing apparatus.

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Emergency procedures

: Evacuate and limit access. Spilled material may present a slipping hazard. Ensure adequate ventilation. Use care in walking on spilled material. Remove all sources of ignition. Avoid breathing mist or vapor.

6.1.2. For emergency responders

Protective equipment

: In case of fire: Wear self-contained breathing apparatus.

Emergency procedures

: Evacuate and limit access. Spilled material may present a slipping hazard. Use care in walking on spilled material. Eliminate all ignition sources if safe to do so. Provide adequate ventilation.

6.2. Environmental precautions

Do not allow run-off from fire-fighting to enter drains or water courses. Relevant water authorities should be notified of any large spillage to water course or drain. Do not discharge into drains or the environment. Notify authorities if liquid enters sewers or public waters. Will float and can be reignited on water surface.

6.3. Methods and material for containment and cleaning up

For containment

: Stop leak if safe to do so. Ventilate affected area. Prevent entry to sewers and public waters. Use only antistatically equipped (spark-free) tools.

Methods for cleaning up

For small liquids spilled (< 1 drum), transfer by mechanical means to a labelled, sealable container for product recovery or safe disposal. Use only antistatically equipped (spark-free) tools. Dispose of waste according to applicable legislation. move container from spill area. Ensure all waste water is collected and treated via a waste water treatment plant. Large spills: Use approved industrial vacuum cleaner for removal. For residues: Contain and/or absorb spill with inert material (sand, vermiculite or other appropriate material), then place in suitable container. Contaminated absorbent material may pose the same hazard as the spilled product.

6.4. Reference to other sections

No additional information available

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Additional hazards when processed

Precautions for safe handling

- : Handle empty containers with care because residual vapours are flammable. Heavier than air, vapours may travel long distances along ground, ignite and flash back to source.
- Use only in well-ventilated areas. In case of insufficient ventilation, wear suitable respiratory equipment. Containers remain hazardous when empty. Continue to observe all precautions. Ground/bond container and receiving equipment. Avoid contact with skin, eyes and clothes. Open and handle container with care. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources. Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. Never siphon by mouth. Avoid breathing mist or vapor. Should always be handled in a closed system.

7.2. Conditions for safe storage, including any incompatibilities

Technical measures

: Use only antistatically equipped (spark-free) tools.

Storage conditions

Keep container tightly closed. Store in dry, cool, well-ventilated area. Protect against direct sunlight. Drum and small container storage: Drums should be stacked to a maximum of 3 high.

Heat and ignition sources

Special rules on packaging

: Remove all sources of ignition. Store away from excessive heat.

Storage area

: Store in a well-ventilated place. Containers which are opened should be properly resealed and kept upright to prevent leakage. Store according to local legislation. Limit access only to the necessary cleaning personnel.

: Correctly labelled.

Packaging materials

: For containers or container linings use mild steel, stainless steel.

7.3. Specific end use(s)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Fuels, diesel (68334-30-5)			
Belgium	Limit value (mg/m³)	100 mg/m³	
Ireland	OEL (15 min ref) (mg/m3)	100 mg/m³	
USA - ACGIH	ACGIH TWA (mg/m³)	100 mg/m ³	

Kerosine (petroleum), hydrodesulfurized, Kerosine - unspecified, [A complex combination of hydrocarbons obtained from a petroleum stock by treating with hydrogen to convert organic sulfur to hydrogen sulfide which is removed. It consists of hydrocarbons having carbon numbers predominantly in the range of C9 through C16 and boiling in the range of approximately 150 °C to 290 °C (302 °F to 554 °F).] (64742-81-0)

· · · · · · · · · · · · · · · · · · ·		
Belgium	Limit value (mg/m³)	200 mg/m³
Belgium	Remark*	D

Kerosine (petroleum) (8008-2	20-6)	
Belgium	Limit value (mg/m³)	200 mg/m³

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Kerosine (petroleum) (8008-20-6)		
Belgium	Remark*	D
Poland	NDS (mg/m³)	100 mg/m³
Poland	NDSCh (mg/m³)	300 mg/m³
USA - ACGIH	ACGIH TWA (mg/m³)	200 mg/m ³
USA - ACGIH	Remark (ACGIH)	Р
USA - NIOSH	NIOSH REL (TWA) (mg/m³)	100 mg/m³

8.2. Exposure controls

Eye protection

Appropriate engineering controls : Mechanical ventilation is recommended. Emergency eye wash fountains and safety showers

should be available in the immediate vicinity of any potential exposure.

Personal protective equipment : Gloves. Protective clothing.





Hand protection : Wear suitable gloves tested to EN374. Use heavy duty gloves constructed of chemical resistant materials such as Viton® or heavy nitrile rubber. Chlorinated polyethylene. (breakthrough time of

: Use safety glasses with side-shields or goggles. DIN EN 166.

Skin and body protection : Use clean protective clothing if splashing or spraying conditions are present such as long-

sleeved garment. DIN EN 14605.

Respiratory protection : This product should not be used under conditions of poor ventilation unless a protective mask

with an appropriate gas filter (i.e. type A1 according to standard EN 14387) is used.

> 240 minutes). For incidental contact/splash protection Neoprene, PVC gloves may be suitable.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Liquid

Appearance : Colorless liquid. : colourless to yellow. Colour : Not specified. odour Odour threshold No data available : No data available pН Relative evaporation rate (butyl acetate=1) : No data available Melting point : No data available : No data available Freezing point · 170 - 390 °C **Boiling point** : > 55 °C Flash point : > 220 Auto-ignition temperature

Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapour pressure : 1 hPa at 20°C
Relative vapour density at 20 °C : No data available
Relative density : 0,82 - 0,89 g/cm³ at 15°C

Solubility : No data available

Log Pow : 3 - 6

Viscosity, kinematic : 1,5 - 6 mm²/s at 40°C Viscosity, dynamic : No data available

Explosive properties : Not explosive. However, formation of explosive air/vapour mixtures are possible.

Oxidising properties : not oxidizing.

Explosive limits : 1 - 6 vol %

9.2. Other information

Specific conductivity : < 100 pS/m

SECTION 10: Stability and reactivity

10.1. Reactivity

Stable under normal conditions.

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10.2. Chemical stability

Stable under normal conditions.

10.3. Possibility of hazardous reactions

Hazardous polymerization will not occur.

10.4. Conditions to avoid

Keep away from open flames, hot surfaces and sources of ignition. Do not pressurize, cut, weld, braze, solder, drill, grind, or expose containers to flames, sparks, heat, or other potential ignition sources.

10.5. Incompatible materials

Oxidizing agents.

10.6. Hazardous decomposition products

Stable under normal conditions of use. Hazardous decomposition products may be released during prolonged heating like smokes, carbon monoxide and dioxide.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Harmful if inhaled.

Gasoil, Marine Gasoil	
LD50 oral rat	> 5000 mg/kg
LD50 dermal rabbit	> 2000 mg/kg
LC50 inhalation rat (Dust/Mist - mg/l/4h)	< 5 mg/l/4h
ATE CLP (gases)	4500,000 ppmv/4h
ATE CLP (vapours)	11,000 mg/l/4h

Skin corrosion/irritation : Causes skin irritation.

Serious eye damage/irritation : Not classified

Respiratory or skin sensitisation : Not classified

Germ cell mutagenicity : Not classified

Carcinogenicity : Suspected of causing cancer.

Reproductive toxicity : Not classified Specific target organ toxicity (single exposure) : Not classified

Specific target organ toxicity (repeated

exposure)

: May cause damage to organs through prolonged or repeated exposure.

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

Gasoil, Marine Gasoil	
Viscosity, kinematic	1,5 - 6 mm ² /s at 40°C

SECTION 12: Ecological information

12.1. Toxicity

Gasoil, Marine Gasoil	
LC50 fishes 1	1 - 10 mg/l
EC50 Daphnia 1	1 - 10 g/l
EC50 other aquatic organisms 2	10 - 100 mg/l
ErC50 (algae)	1 - 10 mg/l
NOEC (acute)	1 - 10 mg/l
NOEC (chronic)	1 - 10 mg/l

12.2. Persistence and degradability

Gasoil, Marine Gasoil	
Persistence and degradability	Major constituents are expected to be inherently biodegradable.

12.3. Bioaccumulative potential

Gasoil, Marine Gasoil	
Log Pow	3 - 6
Bioaccumulative potential	Contains constituents with the potential to bioaccumulate.

12.4. Mobility in soil

Gasoil, Marine Gasoil	
Ecology - soil	Large volumes may penetrate soil and could contaminate groundwater.

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12.5. Results of PBT and vPvB assessment

The components in this formulation do not meet the criteria for PBT, vPvB classification.

12.6. Other adverse effects

No additional information available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Regional legislation (waste) : Dispose of this material and its container to hazardous or special waste collection point.

Waste treatment methods : Recycling the product is recommended. If recycling is not possible, suitable routes of disposal

are supervised incineration with energy recovery according to the characteristic of material at the

time of disposal and based on local legislation.

Waste disposal recommendations : Empty containers should be taken for recycling, recovery or waste in accordance with local

regulation.

SECTION 14: Transport information

In accordance with ADR / RID / IMDG / IATA / ADN

14.1. UN number

UN-No. (ADR) : 1268

14.2. UN proper shipping name

Proper Shipping Name (ADR) : PETROLEUM PRODUCTS N.O.S

14.3. Transport hazard class(es)

Transport hazard class(es) : 3 Hazard labels : 3

14.4. Packing group

Packing group (ADR) : III

14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : No

Other information : No supplementary information available

14.6. Special precautions for user

14.6.1. Overland transport

Classification code (ADR) : F1
Special provision (ADR) : 363
Limited quantities (ADR) : 5L
Excepted quantities (ADR) : E1
Hazard identification number (Kemler No.) : 30

Orange plates

30 1268

Tunnel restriction code (ADR) : D/E EAC code : 3YE

14.6.2. Transport by sea

Transport regulations (IMDG) : Subject to the provisions

Special provision (IMDG) : 223, 363, 955 EmS-No. : F-E, S-E

14.6.3. Air transport

Transport regulations (IATA) : Subject to the provisions

PCA Limited quantities (IATA) : Y344

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PCA packing instructions (IATA) : 355
CAO packing instructions (IATA) : 366

14.6.4. Inland waterway transport

Transport regulations (ADN) : No additional information available Dangers (ADN) : 3+(N1, N2, N3, CMR, F or S)

14.6.5. Rail transport

Transport regulations (RID) : Subject to the provisions

Carriage prohibited (RID) : No

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

15.1.1. EU-Regulations

No REACH Annex XVII restrictions Contains no REACH candidate substance

15.1.2. National regulations

No additional information available

15.2. Chemical safety assessment

A chemical safety assessment has been carried out for the substance or the mixture by the supplier

SECTION 16: Other information

Other information

It is the user's responsibility to take the mentioned precautionary measures and to ensure that this information is complete and sufficient for the use of this product. 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.

Full text of R-, H- and EUH-phrases:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhalation) Category 4
Acute Tox. 4 (Inhalation:dust,mist)	Acute toxicity (inhalation:dust,mist) Category 4
Aquatic Chronic 2	Hazardous to the aquatic environment — Chronic Hazard, Category 2
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 2	Carcinogenicity, Category 2
Flam. Liq. 3	flammable liquids Category 3
Skin Irrit. 2	skin corrosion/irritation Category 2
STOT RE 2	Specific target organ toxicity (repeated exposure) Category 2
STOT SE 3	Specific target organ toxicity (single exposure) Category 3
H226	Flammable liquid and vapour
H304	May be fatal if swallowed and enters airways
H315	Causes skin irritation
H332	Harmful if inhaled
H336	May cause drowsiness or dizziness
H351	Suspected of causing cancer
H373	May cause damage to organs through prolonged or repeated exposure
H411	Toxic to aquatic life with long lasting effects
R10	Flammable
R20	Harmful by inhalation
R38	Irritating to skin
R40	Limited evidence of a carcinogenic effect
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment
R65	Harmful: may cause lung damage if swallowed
R66	Repeated exposure may cause skin dryness or cracking
N	Dangerous for the environment
Xi	Irritant
Xn	Harmful

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SDS EU (REACH Annex II)

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