

SAFETY DATA SHEET

SECTION 1: IDENTIFICATION

1.1 Product Identifier

Product Name Gas Oil
Chemical Name Fuel diesel
Trade Name Gas Oil
Product type MGO
CAS No. 68334-30-5

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

Identified Use(s) Use only as a Fuel
Fuel for industrial, marine, and commercial boilers and furnaces; fuel for other combustion equipment.

The product should not be used for purposes other than those shown above without first referring to the supplier and obtaining written handling instructions.

1.3 Details of the supplier of the safety data sheet

Company Identification Monjasa AS
Strevelinsvej 34 7000 Fredericia
Denmark

1.4 Emergency telephone number: the details below are available 24/7

Country	Emergency Contact Number	Email
Angola	+244 222002243	angola@monjasa.com
Cyprus	+357 25 123 200	cyprus@monjasa.com
Denmark	+45 70 260 230	denmark@monjasa.com
Dubai	+971 4 420 8600	dubai@monjasa.com
Namibia	+264 64 201 2180	namibia@monjasa.com
Panama	+507 2 025 231	americas@monjasa.com
Singapore	+65 3163 4000	singapore@monjasa.com
Stamford	+1 203 276 6300	americas@monjasa.com
Vietnam	+84 28 6287 5952	vietnam@monjasa.com

SECTION 2: HAZARD IDENTIFICATION

2.1 Classification of the substance or mixture

Regulation (EC) No 1272/2008 (CLP)

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

2.2 Label Elements

Signal Word(s) Danger

Warning Statement

Avoid prolonged and repeated skin contact.
 Launder Contaminated Clothing
 Flammable.
 Maybe harmful if swallowed, inhaled, or absorbed through skin.
 Low viscosity petroleum mixture can cause lung injury if ingested and aspirated.
 Causes eye and skin irritation.
 Use only as fuel.

Hazard Pictogram (s)



Hazard statement

Skin

Repeated or prolonged contact may result in defatting, redness, itching, inflammation, cracking, and possible secondary infection. May cause allergic reactions in some individuals.
 Absorption from prolonged or repeated skin contact may cause systemic toxicity.
 Skin contact may produce a sunburn-like condition through an increased sensitivity to sunlight or other light sources.

Eye

May cause slight eye irritation, experienced as mild discomfort and seen as slight excess redness of the eye.

Inhalation

May cause symptoms of drowsiness or narcosis from inhalation of high vapor concentration.

Ingestion

May be fatal if swallowed and enters airways.
 May be irritating to mouth, throat, and stomach. Symptoms may include pain, nausea, vomiting, and diarrhea. Because of its low viscosity, this material can directly enter the lungs, if swallowed, or if subsequently vomited. Once in the lungs it is very difficult to remove and can cause severe injury or death. Symptoms may include pain, nausea, vomiting and diarrhea.

Long Term Toxic Effects

Suspect cancer hazard. Contains a component(s) that may cause cancer. Risk of cancer depends on duration and level of exposure. May cause damage to organs through prolonged or repeated exposure: Liver, Bone marrow and Thymus.
 Toxic to aquatic life with long lasting effects.

Precautionary statement

Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
 Do not breathe fume.
 Wear protective gloves/protective clothing/eye protection/face protection.
 IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician.
 Do NOT induce vomiting. Store in a well-ventilated place. Keep container tightly closed.
 Avoid release to the environment. Dispose of contents/ container to an approved waste disposal plant.

2.3 Other hazards

May form explosive mixture with air. The vapour is heavier than air; beware of pits and confined spaces. May cause irritation to eyes and

air passages. Product may release Hydrogen Sulphide: A specific assessment of inhalation risks from the presence of hydrogen sulphide in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases should be made to help determine controls appropriate to local circumstances.

Even with proper grounding and bonding, this material can still accumulate an electrostatic charge. If sufficient charge is allowed to accumulate, electrostatic discharge and ignition of flammable air-vapour mixtures can occur. This product is intended for use in closed systems only.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1 Substances

Components	CAS No.	EC No.	Range in %
Fuels, diesel	68334-30-5	269-822-7	100

SECTION 4: FIRST AID MEASURES

4.1 Description of first aid measures

Self-protection for the first aider:	Eliminate sources of ignition. If it is suspected that fumes are still present, the responder should wear an appropriate mask or self-contained breathing apparatus. Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity. It may be dangerous to the person providing aid to give mouth-to-mouth resuscitation. Avoid all contact. Do not ingest. If swallowed, then seek immediate medical assistance.
H2S Warning:	Hydrogen sulphide (H ₂ S) can accumulate in the headspace of storage tanks and reach potentially hazardous concentrations. If there is any suspicion of inhalation: A self-contained breathing apparatus should be worn. Remove to fresh air immediately.
Skin Contact	Wash skin thoroughly with plenty of water for at least 15 minutes, using soap if available. Remove contaminated clothing. In case of burns through contact with hot product, cool with plenty of running water. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.
Eye Contact	Rinse immediately with plenty of water until irritation subsides. Hold eyelids apart while flushing to rinse entire surface of eye and lids with water. If eye irritation persists, get medical attention.
Inhalation	In emergency situations use proper respiratory protection to immediately remove the affected victim from exposure. If not breathing, ensure clear airway. Remove to fresh air. Administer artificial respiration if breathing has stopped. If breathing is difficult, qualified medical personnel may administer oxygen. Keep at rest. Call for prompt medical attention. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or Cardio-Pulmonary Resuscitation as required and transport to the nearest medical facility.

Ingestion

If swallowed, DO NOT induce vomiting. Aspiration of the material can cause serious lung injury such as chemical pneumonia. Call a doctor immediately. If spontaneous vomiting occurs, keep head below hips to prevent aspiration and monitor for breathing difficulty. Never give anything by mouth to an unconscious person.

4.2 Most important symptoms and effects, both acute and delayed

Inhalation: Irritation of the respiratory tract.
Skin Contact: Causes skin irritation.
Eye Contact: May cause eye irritation.
Ingestion: Aspiration into the lungs may cause chemical pneumonitis, which can be fatal. Ingestion may cause irritation of the gastrointestinal tract. Nausea, Vomiting and Diarrhea.

4.3 Indication of any immediate medical attention and special treatment needed

Treat symptomatically

Note to a physician:

IF INHALED: If unconscious, place in recovery position and get medical attention immediately. Administer oxygen if available and artificial respiration if necessary.

IF SWALLOWED: Do not induce vomiting because of risk of aspiration into the lungs. If aspiration is suspected obtain immediate medical attention. If vomiting occurs spontaneously, keep head below hips to prevent aspiration into the lungs.

SECTION 5: FIREFIGHTING MEASURES

5.1 Extinguishing media

Appropriate: Extinguish with sand or dry chemical. Foam, Carbon dioxide, Water fog or dry powder.
Inappropriate: Do not use water jet. Direct water jet may spread the fire.
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

Flammable liquid and vapour. Will float and can be reignited on surface water.
Decomposes in a fire giving off toxic fumes: A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds.
May form explosive mixture with air. Prevent liquid entering sewers, basements and any watercourses. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. If Sulphur compounds are present in appreciable amounts, combustion products may include also H₂S and SO_x (sulfur oxides) or sulfuric acid.

5.3 Advice for fire-fighters

Fight fire with normal precautions from a reasonable distance. Fire fighters should wear complete protective clothing including self-contained breathing apparatus. Keep containers cool by spraying with water if exposed to fire. Avoid release to the environment. Dike fire control water for later disposal.

SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions

Caution - spillages may be slippery. Ensure operatives are trained to minimize exposures. Ensure suitable personal protection during removal of spillages. Eliminate sources of ignition. Shut off leaks if without risk. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Avoid all contact with substance. Ensure adequate ventilation. Do not breathe vapour. Do not ingest. If swallowed, then seek immediate medical assistance. See Section 8 for appropriate personal protection equipment.

H2S Warning:

Product may release Hydrogen Sulphide. Exposure controls - These controls may include: Segregation of areas, Access only to authorised persons, Permit to work systems, Confined space working procedures, Area H2S alarms, Personal H2S alarms, Personal escape sets, H2S awareness training. Please see section 8 for appropriate personal protection equipment.

Small spillages:

Wear flame-resistant antistatic protective clothing.

Large spillages:

Evacuate the area and keep personnel upwind. Drench contaminated clothing with water before removing to avoid risk of sparks from static electricity. Avoid all contact. Wear chemical protection suit and breathing apparatus. See also Section: 8.

6.2 Environmental Precautions

Avoid release to the environment. Do not allow to enter drains, sewers or watercourses. Spillages or uncontrolled discharges into watercourses must be alerted to the relevant authorities or other appropriate regulatory body in accordance with applicable regulations. If necessary: Dike area to contain the spill and prevent releases to sewers, drains, or other waterways.

6.3 Methods and material for containment and cleaning up

Provided it is safe to do so, isolate the source of the leak. Use non-sparking equipment when picking up flammable spill. The vapour is heavier than air; beware of pits and confined spaces. Ensure that the equipment is adequately grounded. Allow small spillages to evaporate provided there is adequate ventilation. Wear flame-resistant antistatic protective clothing. Wear chemical protection suit and breathing apparatus.

Spillages onto land:

In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. Adsorb spillages onto sand, earth or any suitable adsorbent material. Transfer to a lidded container for disposal or recovery. Dispose of this material and its container as hazardous waste.

Small spillages: Allow small spillages to evaporate provided there is adequate ventilation. Wear flame-resistant antistatic protective clothing.

Large spillages: Cover spillage with foam to reduce evaporation. Do not use water jet.

Spillages on water or at sea:

Collect as much as possible in clean container for reuse or disposal.

Small spillages: Contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents.

Large spillages: Open waters should be contained with floating barriers or other mechanical means and recovered, only if this is

strictly necessary and if fire/explosion risks can be adequately prevented. Otherwise control the spreading of the spillage, and let the substance evaporate naturally.

4.4 Reference to other sections

For guidance on selection of personal protective equipment see Section 8 of this Safety Data Sheet., Notify authorities if any exposure to the general public or the environment occurs or is likely to occur. For guidance on disposal of spilled material see Section 13 of this Safety Data Sheet.

Local authorities should be advised if significant spillages cannot be contained.

Maritime spillages should be dealt with using a Shipboard Oil Pollution Emergency Plan (SOPEP), as required by MARPOL Annex 1 Regulation 26.

SECTION 7: HANDLING AND STORAGE

8.1 Precautions for safe handling

Keep away from sources of ignition – No smoking. Use only outdoors or in a well-ventilated area. Prevent vapour build up by providing adequate ventilation during and after use. Avoid contact with skin. Use proper bonding and/or grounding procedures. Prevent small spills and leakage to avoid slip hazard. Material can accumulate static charges which may cause an electrical spark (ignition source).

8.2 Storage

Light hydrocarbon vapours can build up in the headspace of containers. These can cause flammability / explosion hazards. Bund storage facilities to prevent soil and water pollution in the event of spillage. Keep only in original packaging.

Keep container closed. Handle containers with care. Open slowly to control possible pressure release. Store in a cool, well-ventilated area. Storage containers should be grounded and bonded. Drums must be grounded and bonded and equipped with self-closing valves, pressure vacuum bungs and flame arresters.

Protect from sunlight. Keep away from heat, sparks, and flames. Keep containers tightly closed. Handle and store in well-ventilated area and in accordance with local regulations regarding flammable liquids. Empty container may contain product residue which may result in flammable or explosive vapours inside the container.

Storage temperatures

Stable at ambient temperatures.

Incompatible materials

Keep away from oxidising agents.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1 Engineering Controls

Ventilation and other forms of engineering controls are often the preferred means for controlling chemical exposure.

8.2 Personal Protection

Fuels are typically used, transferred and transported in closed systems. If exposure is likely (i.e. during sampling) the following advice may be appropriate. Keep good industrial hygiene. Always wash hands before smoking, eating, and drinking. Do not eat, drink or smoke at the workplace.

In open systems where contact is likely, wear safety goggles, chemical-resistant overalls, and chemically impervious gloves.

Eye/ face protection



Avoid eye contact. The wearing of chemicals safety goggles, or face shield is recommended.

Skin protection



Hand protection: Avoid contact with skin or clothing. Skin contact can be minimized by wearing impervious protective clothing including gloves. Protective clothing made from neoprene, nitrile, or n-butyl rubber is suitable in these applications. Gloves should be changed regularly to avoid permeation problems.

Exposed employees should exercise reasonable personal cleanliness; this includes cleansing exposed skin several times daily with soap and water and laundering or dry-cleaning soiled work clothing at least weekly.

Body protection: Wear anti-static clothing and shoes.
small scale: Wear suitable coveralls to prevent exposure to the skin.
large scale: Chemical protection suit.

Respiratory protection



If engineering controls do not maintain airborne contaminant concentrations at a level which is adequate to protect worker health, an approved respirator may be appropriate. Respirator selection, use, and maintenance must be in accordance with regulatory requirements, if applicable.

No special requirements under ordinary conditions of use and with adequate ventilation in closed systems.

For high airborne concentrations, use an approved supplied-air respirator, operated in positive pressure mode. Supplied air respirators with an escape bottle may be appropriate when oxygen levels are inadequate, gas/vapor warning properties are poor, or if air purifying filter capacity/rating may be exceeded.

When the product is heated /In case of inadequate ventilation wear respiratory protection.

Inhalation

If operating conditions create airborne concentrations that are excessive and may exceed the exposure standard(s), the use of an approved respirator is recommended.

8.3 Environmental exposure controls Avoid release to the environment.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Basic physical and chemical properties

Initial Boiling Point and range	141- 462°C
Flash Point	> 60 °C
Flammability (solid, gas)	Not applicable - Liquid
Vapour Pressure	0.4 kPa @ 40°
Vapour Density	Not established
Relative density	0.8 – 0.91 g/cm ³ @ 15 °C
Solubility	Immiscible with water.
Viscosity	> 1.5 mm ² /s @ 40 °C
Pour Point	< 6 C
Appearance	Liquid, Light Amber, Dark Amber, pale yellow
Odour	Diesel odour

Explosive properties
Oxidizing properties

Not explosive. (Vapour may create explosive atmosphere.)
Not oxidising.

SECTION 10: STABILITY AND REACTIVITY

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|-------------|---|--|
| 10.1 | Stability | Material is stable under normal conditions.
Hazardous polymerisation will not occur.
Product may release Hydrogen Sulphide |
| 10.2 | Reactivity | Reacts with - Strong oxidising agents |
| 10.3 | Possibility of hazardous reactions | Extremely flammable liquid and vapour. May form explosive mixture with air. Vapours are heavier than air and may travel considerable distances to a source of ignition and flashback. Product may release Hydrogen Sulphide. |
| 10.4 | Conditions to avoid | Elevated temperature. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking. Keep away from direct sunlight. In certain circumstances product can ignite due to static electricity. |
| 10.5 | Incompatible materials | Keep away from oxidizing agents. Strong Acids and Alkalis. |
| 10.6 | Hazardous decomposition product(s) | Hazardous decomposition products are not expected to form during normal storage. A mixture of solid and liquid particulates and gases including unidentified organic and inorganic compounds. Decomposes in a fire giving off toxic fumes: CO _x , H ₂ S, SO _x , |

SECTION 11: TOXICOLOGICAL INFORMATION

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|-------------|---|---|
| 11.1 | Information on toxicological effects | Occupational exposure to the substance or mixture may cause adverse effects. |
| | Skin Contact | Causes skin irritation. Repeated exposure may cause skin dryness or cracking. May be absorbed through the skin. |
| | Eye Contact | Direct contact with eyes may cause temporary irritation. |
| | Inhalation | Harmful if inhaled. May cause damage to organs through prolonged or repeated exposure by inhalation. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. |
| | Ingestion | Ingestion may cause irritation and malaise. Droplets of the product aspirated into the lungs through ingestion or vomiting may cause a serious chemical pneumonia. |
| 11.2 | Toxicity Data | |
| | Acute | May be fatal if swallowed and enters airways. Harmful if inhaled. Breathing of high concentrations may cause dizziness, light-headedness, headache, nausea and loss of co-ordination. Continued inhalation may result in unconsciousness. May irritate and cause stomach pain, vomiting, diarrhea and nausea. Hydrogen sulfide, a highly toxic gas may be present. Signs and symptoms of overexposure to hydrogen sulfide include respiratory and eye irritation, dizziness, nausea, coughing, a sensation of dryness and pain in the nose, and loss of consciousness. Odor does not provide a reliable indicator of the presence of hazardous levels of gas in the atmosphere. |

Chronic

Prolonged exposure may cause chronic effects.
Suspected of causing cancer

SECTION 12: ECOLOGICAL INFORMATION

12.1 Toxicity

In the absence of specific environmental data for this product, this assessment is based on information for general hydrocarbon components found in residual fuels. Residual fuels, immediately following a release into the environment, will remain largely on the soil surface, and in water, will distribute largely between the water and sediment surfaces. Based on chemical/physical information from the literature for selected components in this product, harmful effects to terrestrial and aquatic habitats could occur. This product is expected to be resistant to biodegradation and to persist in the environment. Aquatic Chronic; Toxic to aquatic life with long lasting effects.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste Disposal

Dispose of this material and its container as hazardous waste. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Place contaminated materials in disposable containers and dispose of in a manner consistent with applicable regulations. Contact local environmental or health authorities for approved disposal of this material. Containers must not be punctured or destroyed by burning, even when empty.

SECTION 14: TRANSPORT INFORMATION

14.1 UN Number

1202

14.2 Proper Shipping Name

Gas Oil or Diesel Fuel

14.3 Additional Information

Transport in accordance with local regulations regarding flammable liquids.

SECTION 15: REGULATORY INFORMATION

For current health and safety information on marine fuels, contact any Sales Representative in the country where the bunker purchase took place.

SECTION 16: OTHER INFORMATION

SOURCE OF KEY DATA:

The recommendations presented in this Safety Data Sheet were compiled from actual test data (when available), comparison with similar products, component information from suppliers and from recognized codes of good practice.

-----**-NOTE-**-----

The information and recommendations contained herein are, to the best of knowledge and belief, accurate and reliable as of the date issued, but are offered without guarantee or warranty, express or implied. They relate to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Conditions of use of the material are under the control of the user; therefore, it is the user's responsibility to satisfy himself as to the suitability and completeness of such information for his own particular use.

Health and safety precautions and environmental advice noted in this safety data sheet may not be accurate for all individuals and/or situations.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations.

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