

Material Safety Data Sheet

According to Regulation (EC) No 1907/2006 (REACH)

DMA

1. Identification of the substance/preparation and of the company/undertaking

Identification of the substance or preparation

Fuels, diesel EINECS-No. 269-822-7

Trade name

DMA; Marine Gas Oil; MGO; Gas Oil; F76; DMAXX; DMALS

Use of the substance/preparation

Fuel for industrial, marine and commercial boilers and furnaces; fuel for low and medium speed diesel.

Company/undertaking identification

Bomin Deutschland GmbH & Co. KG

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2. Hazards identification

This preparation is classified as hazardous according to EG No. 1272/2008 (GHS).

This preparation is classified as hazardous according to EG No. 67/548/EWG or 1999/45/EG.

Hazards characteristic

May cause cancer.

Very toxic to aquatic organisms may cause long-term adverse effects in the aquatic environment.

Informations pertaining to special dangers for human and environment

Repeated exposure may cause skin dryness or cracking.

People who suffer from skin sensitization problems, asthma, allergies, chronic or recurring respiratory illnesses should not be deployed in any process using this preparation.

Inhalation of vapour or mist may cause irritation of the respiratory system.

This material is combustible and can be ignited by heat, sparks, flames, or other sources of ignition (e.g. static electricity, pilot lights, or mechanical/electrical equipment).

Vapours of flammable solvents can accumulate in the gas phase of closed container, especially during heat treatment.

3. Composition/information on ingredients

Chemical characterization

Complex mixture of paraffin hydrocarbons, naphthenic, aromatic and olefin hydrocarbons with carbon numbers in C10 to C28 range. Performance enhancing additives may be included.

Fuel, diesel CAS-Nr. 68334-30-5 EINECS-Nr. 269-822-7 90 %

Carc. Cat. 3

Symb.: Xn

R40, 65, 66, 51/53

Cracked components containing polycyclic aromatic hydrocarbon compounds may be present.

Total sulphur content may range up to 1.5% or as limited by local, national or international regulations.

4. First aid measures

Description of First aid measures

General informations

In case of accident or unwellness, seek medical advice immediately (show directions for use or safety data sheet if possible).

If unconscious place in recovery position and seek medical advice.

Symptoms of poisoning may develop several hours following exposure; medical observation therefore necessary for at least 48 hours.

In case of inhalation

Remove casualty to fresh air and keep warm and at rest.

In case of inhalation of spray mist, seek medical advice.

In all cases of doubt, or when symptoms persist, seek medical advice.

In case of skin contact

Wash immediately with: Water and soap.

Do not wash with: Solvents/thinner.

In case of contact with molten product, cool skin area rapidly with cold water.

Do not peel solidified product off the skin.

Burns caused by molten material must be treated clinically.

Medical advice must be obtained urgently if product under high pressure has been injected through the skin.

In case of eye contact

After contact with the eyes, rinse with water with the eyelids open for a sufficient length of time, then consult an ophthalmologist immediately.

If hot material enters the eye, flood immediately with cold water for 10 minutes to dissipate the heat, if possible, ensuring eyelids are held open. Take the casualty to hospital for examination and treatment without delay.

In case of ingestion

Do NOT induce vomiting.

If accidentally swallowed rinse the mouth with plenty of water (only if the person is conscious) and obtain immediate medical attention.

Information to physician

a.) Symptoms

Unconsciousness; dyspnoea; headache; dizziness; nausea

b.) Potential hazards

Depression of the central nervous system; Pulmonary oedema. The onset of pulmonary oedema may be delayed for 24 to 48 hours in case of hydrogen sulphide intoxication.

c.) Treatment

Treat symptomatically.

Where appropriate artificial ventilation.

Regulation of the blood circulation, possible shock treatment.

Additional Information

Rescue of overexposed persons should be attempted only after notifying others of the emergency and only if appropriate personal protective equipment and positive pressure self-contained breathing apparatus (SCBA) is available.

Self-protection of the first aider

First aider: Pay attention to self-protection!

5. Fire-fighting measures

Extinguishing media

Suitable: Foam; extinguishing powder; carbon dioxide (CO₂); sand.

Unsuitable: Full water jet.

Special exposure hazards arising from the substance or preparation itself, combustion products, resulting gases

Nitrogen oxides (NO_x); Carbon monoxide; aldehyde; Sulphur dioxide (SO₂).

Informations for fire-fighters

Special protective equipment for fire-fighters

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

Additional information

Do not inhale explosion and combustion gases.

Burning produces heavy smoke.

Use water spray jet to protect personnel and to cool endangered containers.

Avoid spraying directly into storage containers because of the danger of boil-over.

Collect contaminated fire extinguishing water separately. Do not allow entering drains or surface water.

Fire class

DIN EN 2: B

6. Accidental release measures

Personal precautions

Keep unprotected people away and stay on the upwind side.

Provide adequate ventilation.

Special danger of slipping by leaking/spilling product.

Remove all sources of ignition.

Wear personal protection equipment.

See protective measures under point 7 and 8.

Environmental precautions

Recovery of large spillages should be effected by specialist personnel.

Cover drains. Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

Prevent spread over a wide area (e.g. by containment or oil barriers).

Make sure spills can be contained (e.g. sump pallets or kerbed areas).

Methods for cleaning up

Treat the recovered material as prescribed in the section on waste disposal.

Take up mechanically. Remove from the water surface (e.g. skimming, sucking).

Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents).

Do not wash product into drainage system. Clear contaminated areas thoroughly under observing environmental regulations.

Additional information

Any spillage should be regarded as a potential fire risk. In the case of spillage at sea approved dispersants may be used where authorised by the appropriate government/regulatory authorities. In the event of spillages contact the appropriate authorities.

7. Handling and Storage

7.1. Handling

Advice on safe handling

Persons with a history of asthma, allergies, chronic or recurrent respiratory disease should not be exposed to any process in which this product is used.

Protective measures

Do not breathe vapour/spray/mist.

All work processes must always be designed so that the inhalation of vapours or spray/mist and the contact with skin and eyes is excluded.

Always close containers tightly after the removal of product.

Avoid exposure - obtain special instructions before use.

Use only in well-ventilated areas.

Only use the material in places where open light, fire and other flammable sources can be kept away.

Wear personal protective clothing (see chapter 8).

Technical measures

Floors should be impervious, resistant to liquids and easy to clean.

Technical ventilation of workplace.

Measures required to protect the environment

Protect drains and sewers from entry of the product.

Specific requirements or handling rules

The floor should be leak tight, jointless and not absorbent.

Suitable materials for container/equipment: Stainless steel; Polytetrafluoroethylene (PTFE)

Unsuitable materials for container/equipment: Polyethylene (PE).

Do not siphon product by mouth.

Precautions against fire and explosion

Flammable vapours can accumulate in head space of closed systems.

Only use the material in places where open light, fire and other flammable sources can be kept away.

Take precautionary measures against static discharges.

Keep away from sources of ignition - No smoking.

Never cut, weld, solder or braze empty containers.

7.2. Storage

Technical measures and storage conditions

Store and dispense only in well ventilated areas away from heat and sources of ignition.

Store and use only equipment/containers designed for use with this product.

Storage temperature

Ambient; do not overheat.

Hints on joint storage

Keep away from: Oxidising agents

Do not store together with: Food and feedingstuffs

Keep container tightly closed in a cool, well-ventilated place.

Further information

Empty packages may contain some remaining product. Retain hazard warning labels on empty packages as a guide to the safe handling, storage and disposal of empty packaging.

7.3. Specific Uses

Do not enter storage tank without breathing apparatus unless the tank has been well ventilated to an oxygen concentration of at least 20 % volume and the tank atmosphere has been shown no hazardous hydrocarbon vapour concentration.

8. Exposure controls/Personal protection

8.1. Exposure limit values

To date, no national critical limit values exist.

8.2. Exposure controls

Occupational exposure controls

Respiratory protection

If technical exhaust or ventilation measures are not possible or insufficient, an approved air purifying respirator (Typ A organic gases) and vapour filter has to be used.

According to experience this refers to the following tasks: Cleaning work.

Suitable respiratory protection apparatus: Gas filtering device (DIN EN 141).

Use only permitting respiratory protection equipment. Observe the wear time limits according legal regulations in combination with the rules for using respiratory protection apparatus.

Hand protection

Tested gloves to EN 374 must be worn by short-term hand contact.

Suitable gloves type: NBR (nitrile rubber).

Unsuitable material: Leather; thick fabric.

Before using check leak tightness / impermeability.

For special purposes, it is recommended to check the resistance to chemicals of the protective gloves mentioned above together with the supplier of these gloves.

Eye protection

Suitable eye protection where eye contact can accidentally occur: Eye glasses with side protection exceeding EN 166 are recommended.

Protective clothing

Suitable protective clothing: Chemical protection clothing; Safety shoes.

Protective clothing should be regularly inspected and maintained; overalls should be dry-cleaned, laundered and preferable stashed after use.

When handling with chemical substances, protective clothing with CE-labels including the four control digits or comparable must be worn.

Remove heavily contaminated clothing and wash underlying skin.

General health and safety measures

Work in well ventilated zones or use proper respiratory protection.

Avoid contact with skin, eye and clothing.

Remove contaminated, saturated clothing. Wash contaminated clothing prior to re-use.

Thorough skin-cleansing after handling the product.

Apply skin care products after work.

Street clothing should be stored separately from work clothing.

9. Physical and chemical Properties

9.1. General informations

Physical state: Liquid

Colour: Clear (may be dyed to comply with local regulations/requirements)

Odour: characteristic like hydrocarbons, aromatic

9.2. Safety relevant basis data

pH value:		Not applicable.
Solidifying point:		Not determinate
Flash Point:	ASTM D 93	≥ 60 °C
Auto Ignition temperature:		≥ 220 °C
Vapour pressure:		< 1 mbar at 20 °C
Density at 15 °C:	ASTM D 1298	≤ 890 kg/m ³
Water solubility at 15 °C:		very slightly soluble in water

Soluble in:		Alcohol
Partition coefficient:		
n-Octanol/Water (log Po/w):		3,3 - 7,1.
Kinematic viscosity at 40 °C:	ASTM D 445	2 – 6 mm ² /s
Explosive limits:	lower	0,6 % Vol. in air
	upper	6,5 % Vol. in air

9.3. Other informations

Combustible liquid.

10. Stability and Reactivity

Chemical stability

Stable at ambient temperatures.

Hazardous polymerisation reactions will not occur.

Possibility of hazardous reactions

Hazardous reactions will not occur.

10.1. Conditions to avoid

In case of exceeding the storage temperature: Danger of fire.

Avoid all possible sources of ignition (spark, flame).

10.2. Incompatible materials

Strong oxidising agent.

10.3. Hazardous decomposition products

Thermal decomposition products will vary with conditions. Overheating in storage may cause partial vapourisation and decomposition with the production of toxic gases (H₂S). Incomplete combustion will generate smoke, carbon dioxide and hazardous gases, including carbon monoxide.

11. Toxicological information

11.1. Acute Toxicity

Acute oral toxicity: LD50 (rat): > 2.000 mg/kg (Concawe)

Acute dermal toxicity: no data

Acute inhalative toxicity: no data

Skin corrosion/irritation

Will cause burns if hot material contacts skin. Prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders including cancer.

Serious eye damage/irritation

Conjunctival redness. Will cause burns if hot material contacts eyes.

Irritation to respiratory tract

The inhalation of vapour, mists or fumes over long periods may be hazardous.

Dusts generating during the removal of ash deposits from engine/boiler combustion surfaces or exhaust spaces, will be harmful if inhaled and may cause nausea and eye, nose and throat irritation.

Repeated contact may result in serious irreversible disorder.

11.2. Sensitation

No data available.

11.3. Repeated dose toxicity (sub-acute, sub-chronic, chronic)

Prolonged or repeated skin contact may eventually result in dermatitis or more serious irreversible skin disorders.

11.4. CMR effects (carcinogenicity, mutagenicity and toxicity for reproduction)

Prolonged or repeated skin contact may cause cancer.

11.5. Experiences made in practice

No data.

12. Ecological information

12.1. Ecotoxicity

Aquatic toxicity

Acute fish toxicity: 96h 31 mg/l

Long term toxicity to fish: No data.

Acute daphnia toxicity: No data.

Chronic daphnia toxicity: No data.

Spills may form a film on water surfaces causing physical damage to organisms. Oxygen transfer could also be impaired. May cause long term adverse effects in the aquatic environment.

12.2. Mobility

In case of a penetration into the soil the product is mobile and may contaminate the groundwater. This material may accumulate in sediments.

12.3. Persistence and degradability

Not persistent. Not readily biodegradable.

12.4. Bioaccumulative potential

No indication to bioaccumulation potential.

12.5. Results of PBT assessment

This substance does not meet the criteria for classification as PBT or vPvB.

12.6. Further ecological information

Discharge into the environment must be avoided.

12.7. Additional Information

No data.

13. Disposal considerations

Appropriate disposal/product

Dispose of waste according to applicable local, state, and federal regulations.

Appropriate disposal/package

Contaminated packages must be completely emptied and can be re-used following proper cleaning.

Non-contaminated packages may be recycled.

List of proposed waste codes/waste designations in accordance with EWC

Waste codes product

13 07 01*

13 07 03*

16 07 08*

* hazardous waste

Waste name

fuel oil and diesel

other fuels (including mixtures)

wastes containing oil

14. Transport information

ADR/RID/ADN/IMDG

UN-No.:

1202

Proper shipping name:

GASOIL, "MARINE POLLUTANT"

Class:

3

Packing group:

III

Hazard label:

3

Special provisions(s):

640 M

EmS-No.

F-A, S-F

Transporting in bulk by seagoing vessel in international waters under the scope of Marpol Annex I



15. Regulatory information

15.1. Chemical Safety Assessment

Chemical safety assessments for substances in this preparation were not carried out.

15.2. Labelling

Labelling (Regulation (EC) No 1272/2008)

Hazard components for labelling

Flammable Kat. 3

Carc. 1B

Aquatic Chronic 1

Signal word

Danger.

Hazard pictogram



GHS02



GHS08



GHS09

Hazard statements

H226; H304; H351; H411

Precautionary statements

P210; P240; P242; P281; P303+P361+353; P331

Health properties

EUH066

Labelling (67/548/EEC or 1999/45/EC)

Hazard symbols and hazard statements of dangerous substances and preparations



Harmful



Dangerous for the environment

R-phrases

R40	Possible risk of cancer.
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

S-phrases

S24	Avoid contact with skin.
S36/37	Wear suitable protective clothing and gloves.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62	If swallowed, do not induce vomiting; seek medical advice immediately and show this container or label.

15.3. Other regulations (EU)

Authorisation and/or registration on use

Authorisation:	Combustible.
Restriction on use:	No data.

Other EU regulations

Informations according 1999/13/EC about limitation of emissions of volatile organic compounds (VOC guideline): This chemical is a VOC according to 99/13/EC.

15.4. National regulations (Germany)

Restrictions of occupation

Observe directive 98/24/EC of 7 April 1998 on the protection of the health and safety of workers from the risks related to chemical agents at work.

Observe employment restrictions for pregnant and nursing mothers according to the 'mother protection guideline' (92/85/EEC).

Juvenils are only allowed to handle this product according to the guideline 94/33/EC, and as long as all effects of dangerous substances are prevented.

Störfallverordnung (12. BImSchV)

Substance is subject to the Störfallverordnung, coloum 1, No. 13.3 – attend to the listed limits.

Wassergefährdungsklasse (water hazard class)

Hazardous for water (WGK 2).

Technische Anleitung Luft (TA-Luft)

Class: 1

a total of the following exhaust emissions are not allowed to exceed:

mass flow: 0,1 kg/h

or

mass concentration: 20 mg/m³

Annex 4: ingredient(s) not named.

Lösemittelverordnung (31. BImSchV)

Not applicable.

16. Other information

Relevant R-, S-, H- and P-phrases (Number and full text)

R40	Possible risk of cancer.
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.
S24	Avoid contact with skin.
S36/37	Wear suitable protective clothing and gloves.
S61	Avoid release to the environment. Refer to special instructions/Safety data sheets.
S62	If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.
H226	Flammable liquid or vapour.
H304	May be fatal if swallowed and enters airways.
H351	Suspected of causing cancer.
H411	Toxic to aquatic life with long lasting effects.
EUH066	Repeated exposure may cause skin dryness or cracking.
P210	Keep away from heat/sparks/open flames/hot surfaces. – No smoking.
P240	Ground/bond container and receiving equipment.
P242	Use only non-sparking tools.
P281	Use personal protective equipment as required.
P303+P361+353	IF ON SKIN: Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P331	Do NOT induce vomiting.

Recommended restrictions on use

For industrial purposes only.

Data change compared with the previous version.

Adaption according European Chemicals Regulation (REACH) 1907/2006/EC.

Data sheet issuing division

Betrieblicher Umwelt-Service, Dipl. Ing. Dirk Freudenberg

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The above information describes exclusively the safety requirements of the product and is based on our present-day knowledge. The information is intended to give you advice about the safe handling of the product named in this safety data sheet, for storage, processing, transport and disposal. The information cannot be transferred to other products. In the case of mixing the product with other products or in the case of processing, the information on this safety data sheet is not necessarily valid for the new made-up material.