

**INTERMEDIATE FUEL OIL (IFO)**

Revision date: 31.08.2022

Product code: 30755-1

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**SECTION 1: Identification of the substance/mixture and of the company/undertaking**
**1.1. Product identifier**

INTERMEDIATE FUEL OIL (IFO)

Substance name:	Fuel oil, residual; Heavy Fuel oil
REACH Registration Number:	01-2119474894-22-
CAS No:	68476-33-5
Index No:	649-024-00-9
EC No:	270-675-6
UFI:	0JD9-R449-AX00-CV6T

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

Product Categories [PC]: PC 13 Fuels.

**1.3. Details of the supplier of the safety data sheet**

Company name:	Hoyer Marine GmbH	
Street:	Palmaille 63	
Place:	D-22767 Hamburg	
Telephone:	+49 (40) 53798470	
e-mail:	sicherheitsdatenblatt@hoyer-energie.de	
Contact person:	Technical Service	Telephone: +49 (4262) 799603
Internet:	www.hoyer-energie.de	

**1.4. Emergency telephone number:**

+356 25456508

**SECTION 2: Hazards identification**
**2.1. Classification of the substance or mixture**
**Regulation (EC) No 1272/2008**

Acute Tox. 4; H332  
 Carc. 1B; H350  
 Repr. 2; H361d  
 STOT RE 2; H373  
 Aquatic Acute 1; H400  
 Aquatic Chronic 1; H410

Full text of hazard statements: see SECTION 16.

**2.2. Label elements**
**Regulation (EC) No 1272/2008**

Signal word: Danger

Pictograms:


**Hazard statements**

H332	Harmful if inhaled.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.



according to Regulation (EC) No 1907/2006

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**Precautionary statements**

P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/spray.
P273	Avoid release to the environment.
P280	Wear protective gloves/protective clothing/eye protection/face protection/hearing protection.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P501	Dispose of contents/container to hazardous or special waste collection point.

**2.3. Other hazards**

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

**SECTION 3: Composition/information on ingredients****3.1. Substances****Hazardous components**

CAS No	Chemical name	Quantity
	EC No	
	Index No	
	REACH No	
	Classification (Regulation (EC) No 1272/2008)	
68476-33-5	Fuel oil, residual; Heavy Fuel oil	100,0 %
	270-675-6	
	649-024-00-9	
	01-2119474894-22	
	Carc. 1B, Repr. 2, Acute Tox. 4, STOT RE 2, Aquatic Acute 1, Aquatic Chronic 1; H350 H361d H332 H373 H400 H410	

Full text of H and EUH statements: see section 16.

**Specific Conc. Limits, M-factors and ATE**

CAS No	EC No	Chemical name	Quantity
		Specific Conc. Limits, M-factors and ATE	
68476-33-5	270-675-6	Fuel oil, residual; Heavy Fuel oil	100,0 %
		inhalation: LC50 = 4,3 mg/l (vapours); inhalation: ATE = 1,5 mg/l (dusts or mists); dermal: LD50 = > 2000 mg/kg; oral: LD50 = > 5000 mg/kg	

**SECTION 4: First aid measures****4.1. Description of first aid measures****General information**

First aider: Pay attention to self-protection!

Move victim out of danger zone.

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

**After inhalation**

IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If victim is at risk of losing consciousness, position and transport on their side.

In case of irregular breathing or respiratory arrest provide artificial respiration. Where appropriate artificial ventilation. Call a physician immediately.

**After contact with skin**

After contact with skin, take off immediately all contaminated clothing, and wash immediately with plenty of water and soap. After cleaning apply high-fat content skin care cream.

In case of skin irritation, seek medical treatment.

**After contact with eyes**

Rinse cautiously with water for several minutes.

Remove contact lenses, if present and easy to do. Continue rinsing.

In case of troubles or persistent symptoms, consult an ophthalmologist.

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**After ingestion**

Provide fresh air. Rinse mouth immediately and drink plenty of water.

IF SWALLOWED: Immediately call a POISON CENTER/doctor.

Do NOT induce vomiting.

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

Headache, Dizziness, Dizziness, Inebriation, Dyspnoea, Impaired consciousness,

May cause cancer.

Harmful if inhaled.

Possible risk of harm to the unborn child.

May cause damage to organs through prolonged or repeated exposure.

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

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

Warning after ingestion: Caution if victim vomits: Risk of aspiration! Subsequent observance for pneumonia and lung oedema.

First Aid, decontamination, treatment of symptoms.

**SECTION 5: Firefighting measures****5.1. Extinguishing media****Suitable extinguishing media**

Extinguishing powder, Foam, Carbon dioxide (CO<sub>2</sub>), Water fog.

Co-ordinate fire-fighting measures to the fire surroundings.

**Unsuitable extinguishing media**

High power water jet.

**5.2. Special hazards arising from the substance or mixture**

Vapours can form explosive mixtures with air.

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide.

**5.3. Advice for firefighters**

In case of fire and/or explosion do not breathe fumes.

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

**Additional information**

Move undamaged containers from immediate hazard area if it can be done safely.

Use water spray jet to protect personnel and to cool endangered containers. Contaminated fire-fighting water must be collected separately. Do not allow to enter into surface water or drains.

**SECTION 6: Accidental release measures****6.1. Personal precautions, protective equipment and emergency procedures****General advice**

Remove persons to safety. Do not breathe vapour/aerosol. Provide adequate ventilation.

In case of leakage, eliminate all ignition sources. Use non-sparking tools.

Avoid contact with skin, eyes and clothes. Wear personal protection equipment.

In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.

**6.2. Environmental precautions**

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

**6.3. Methods and material for containment and cleaning up****Other information**

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

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

High slip hazard because of leaking or spilled product.

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

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

**6.4. Reference to other sections**

Personal protection equipment: refer to chapter 8.

**SECTION 7: Handling and storage****7.1. Precautions for safe handling****Advice on safe handling**

Do not breathe vapour/aerosol. Provide adequate ventilation as well as local exhaustion at critical locations.  
Avoid contact with skin and eyes. Take off immediately all contaminated clothing. For industrial purposes only.

**Advice on protection against fire and explosion**

Keep away from heat/sparks/open flames/hot surfaces. - No smoking.  
Vapours are heavier than air and will spread at floor level. Vapours can travel considerable distances to a source of ignition where they can ignite, flash back, or explode.

**Advice on general occupational hygiene**

Do not eat, drink, smoke or sneeze at the workplace.  
Do not breathe vapour/aerosol. Avoid contact with skin, eyes and clothes.  
Take off contaminated clothing and wash it before reuse.  
Protect skin by using skin protective cream.  
Wash hands before breaks and after work.  
After cleaning apply high-fat content skin care cream.  
Do not put any product-impregnated cleaning rags into your trouser pockets.  
Minimum standard for preventive measures while handling with working materials are specified in the TRGS 500.

**Further information on handling**

Ground and bond container and receiving equipment.  
Use non-sparking tools.  
Take precautionary measures against static discharges.

**7.2. Conditions for safe storage, including any incompatibilities****Requirements for storage rooms and vessels**

Store in a place accessible by authorized persons only.  
Only use containers specifically approved for the substance/product.  
Keep container tightly closed in a cool, well-ventilated place.  
Always close containers tightly after the removal of product.  
Recommended storage temperature: 5 - 30 °C.

**Hints on joint storage**

Do not store together with: Oxidising agent,  
Keep away from food, drink and animal feedingstuffs.

**Further information on storage conditions**

Protect against: Heat, Light, Frost, moisture. Protect from direct sunlight.

**7.3. Specific end use(s)**

Fuels.  
Observe technical data sheet.

**SECTION 8: Exposure controls/personal protection****8.1. Control parameters****Additional advice on limit values**

Air limit values:  
Limit value type (country of origin): US-OSHA PEL-Value: 5 mg/m<sup>3</sup>  
Limit value type (country of origin): ACGIH STEL-Value: 10 mg/m<sup>3</sup>

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### 8.2. Exposure controls

#### Appropriate engineering controls

Provide adequate ventilation as well as local exhaust at critical locations.  
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.

#### Individual protection measures, such as personal protective equipment

##### Eye/face protection

Suitable eye protection: Tightly sealed safety glasses. (EN 166)

##### Hand protection

Tested protective gloves are to be worn: German Industry Norms (DIN) / European Norms (EN): EN 420, EN ISO 374.

Suitable material: NBR (Nitrile rubber), FKM (fluoro rubber).

Unsuitable material: Textile material.

Required properties: liquid-tight.

penetration time (maximum wearing period): > 480 min.

Thickness of glove material: 0,4 mm

Before using check leak tightness / impermeability.

##### Skin protection

Handling larger quantities: Wear suitable protective clothing.

##### Respiratory protection

With correct and proper use, and under normal conditions, breathing protection is not required.

Respiratory protection necessary at: exceeding exposure limit values, insufficient ventilation, aerosol or mist generation.

Suitable respiratory protective equipment: A gas filtering equipment (EN 141). AP Combination filter device (DIN EN 141)..

## SECTION 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

Physical state:	liquid
Colour:	dark brown
Odour:	characteristic

#### Test method

#### Changes in the physical state

Melting point/freezing point: No data available.

Boiling point or initial boiling point and boiling range: approx. 160 - 400 °C

Flash point: > 60 °C ASTM D 93

#### Explosive properties

In use may form flammable/explosive vapour-air mixture.

Lower explosion limits: approx. 0,5 vol. %

Upper explosion limits: approx. 5,0 vol. %

Auto-ignition temperature: 220 °C ASTM E 659-78

pH-Value: not applicable

Viscosity / kinematic:  
(at 40 °C) approx. 35 - 1500 mm<sup>2</sup>/s DIN EN ISO 3104

Vapour pressure:  
(at 50 °C) < 10 hPa EN13016-1

Density (at 15 °C): approx. 0,95 - 1,05 g/cm<sup>3</sup>

Relative vapour density: > 3

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**9.2. Other information**
**Information with regard to physical hazard classes**

Oxidizing properties

No data available.

**Other safety characteristics**
**Further Information**

none

**SECTION 10: Stability and reactivity**
**10.1. Reactivity**

No hazardous reaction when handled and stored according to provisions.

**10.2. Chemical stability**

The product is stable under storage at normal ambient temperatures.

**10.3. Possibility of hazardous reactions**

In use may form flammable/explosive vapour-air mixture.

**10.4. Conditions to avoid**

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

**10.5. Incompatible materials**

Strong acid, Strong alkali, Oxidising agent, strong.

**10.6. Hazardous decomposition products**

Thermal decomposition can lead to the escape of irritating gases and vapours.

In case of fire may be liberated: Carbon dioxide (CO<sub>2</sub>), Carbon monoxide.
**SECTION 11: Toxicological information**
**11.1. Information on hazard classes as defined in Regulation (EC) No 1272/2008**
**Toxicokinetics, metabolism and distribution**

No information available.

**Acute toxicity**

Harmful if inhaled.

CAS No	Chemical name				
	Exposure route	Dose	Species	Source	Method
68476-33-5	Fuel oil, residual; Heavy Fuel oil				
	oral	LD50 > 5000 mg/kg	Rat		OECD 401
	dermal	LD50 > 2000 mg/kg	Rabbit		OECD 434
	inhalation (4 h) vapour	LC50 4,3 mg/l	Rat		
	inhalation dust/mist	ATE 1,5 mg/l			

**Irritation and corrosivity**

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

**Sensitising effects**

Respiratory or skin sensitisation: not sensitising. No known symptoms to date.

**Carcinogenic/mutagenic/toxic effects for reproduction**

May cause cancer. (Fuel oil, residual; Heavy Fuel oil)

Suspected of damaging the unborn child. (Fuel oil, residual; Heavy Fuel oil)

Germ cell mutagenicity: Based on available data, the classification criteria are not met.

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**STOT-single exposure**

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

**STOT-repeated exposure**

May cause damage to organs through prolonged or repeated exposure. (Fuel oil, residual; Heavy Fuel oil)

**Aspiration hazard**

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

**11.2. Information on other hazards****Endocrine disrupting properties**

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

**SECTION 12: Ecological information****12.1. Toxicity**

Very toxic to aquatic life with long lasting effects.

CAS No	Chemical name					
	Aquatic toxicity	Dose	[h]   [d]	Species	Source	Method
68476-33-5	Fuel oil, residual; Heavy Fuel oil					
	Acute fish toxicity	LC50	79 mg/l	96 h	Oncorhynchus mykiss (Rainbow trout)	OECD 203
	Acute algae toxicity	ErC50	0,75 mg/l	72 h	Pseudokirchneriella subcapitata	
	Acute crustacea toxicity	EC50	2 mg/l	48 h	Daphnia magna	

**12.2. Persistence and degradability**

Not easily bio-degradable (according to OECD-criteria).

**12.3. Bioaccumulative potential**

No information available.

**12.4. Mobility in soil**

Physical state at 20 °C and 101.3 kPa: liquid.

If product enters soil, it will be mobile and may contaminate groundwater

Due to its low solubility in water the product is almost completely mechanically separated in biological sewage plants.

**12.5. Results of PBT and vPvB assessment**

The substances in the mixture do not meet the PBT/vPvB criteria according to REACH, annex XIII.

**12.6. Endocrine disrupting properties**

This product does not contain a substance that has endocrine disrupting properties with respect to non-target organisms as no components meets the criteria.

**12.7. Other adverse effects**

No information available.

**Further information**

Discharge into the environment must be avoided.

Do not allow to enter into surface water or drains.

Do not allow to enter into soil/subsoil.

**SECTION 13: Disposal considerations****13.1. Waste treatment methods****Disposal recommendations**

Do not allow to enter into surface water or drains.

Dispose of waste according to "Kreislaufwirtschafts- und Abfallgesetz (KrW-/AbfG)".

Dispose of waste according to applicable legislation.

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According to EAKV, allocation of waste identity numbers/waste descriptions must be carried out in a specific way for every industry and process.

Consult the local waste disposal expert about waste disposal.

**List of Wastes Code - residues/unused products**

130703 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); wastes of liquid fuels; other fuels (including mixtures); hazardous waste

**List of Wastes Code - used product**

130703 OIL WASTES AND WASTES OF LIQUID FUELS (EXCEPT EDIBLE OILS, AND THOSE IN CHAPTERS 05, 12 AND 19); wastes of liquid fuels; other fuels (including mixtures); hazardous waste

**List of Wastes Code - contaminated packaging**

150110 WASTE PACKAGING; ABSORBENTS, WIPING CLOTHS, FILTER MATERIALS AND PROTECTIVE CLOTHING NOT OTHERWISE SPECIFIED; packaging (including separately collected municipal packaging waste); packaging containing residues of or contaminated by hazardous substances; hazardous waste

**Contaminated packaging**

Contaminated packages must be completely emptied and can be re-used following proper cleaning. Packing which cannot be properly cleaned must be disposed of.

**SECTION 14: Transport information**
**Land transport (ADR/RID)**
**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuel oil, residual; Heavy Fuel oil)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L

Excepted quantity:

E1

Transport category:

3

Hazard No:

90

Tunnel restriction code:

-

**Inland waterways transport (ADN)**
**14.1. UN number or ID number:**

UN 3082

**14.2. UN proper shipping name:**

ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuel oil, residual; Heavy Fuel oil)

**14.3. Transport hazard class(es):**

9

**14.4. Packing group:**

III

Hazard label:

9



Classification code:

M6

Special Provisions:

274 335 375 601

Limited quantity:

5 L



according to Regulation (EC) No 1907/2006

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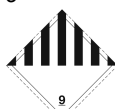
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Excepted quantity: E1

**Marine transport (IMDG)**

**14.1. UN number or ID number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuel oil, residual; Heavy Fuel oil)  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Special Provisions: 274, 335, 969  
 Limited quantity: 5 L  
 Excepted quantity: E1  
 EmS: F-A, S-F

**Air transport (ICAO-TI/IATA-DGR)**

**14.1. UN number or ID number:** UN 3082  
**14.2. UN proper shipping name:** ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
**14.3. Transport hazard class(es):** 9  
**14.4. Packing group:** III  
 Hazard label: 9



Special Provisions: A97 A158 A197  
 Limited quantity Passenger: 30 kg G  
 Passenger LQ: Y964  
 Excepted quantity: E1  
 IATA-packing instructions - Passenger: 964  
 IATA-max. quantity - Passenger: 450 L  
 IATA-packing instructions - Cargo: 964  
 IATA-max. quantity - Cargo: 450 L

**14.5. Environmental hazards**

ENVIRONMENTALLY HAZARDOUS: Yes



Danger releasing substance: Fuel oil, residual; Heavy Fuel oil

**14.6. Special precautions for user**

Handling (Transport information): See protective measures under point 7 and 8.

**SECTION 15: Regulatory information****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****EU regulatory information**

Restrictions on use (REACH, annex XVII):  
 Entry 3, Entry 28, Entry 75

**Additional information**

Safety Data Sheet according to Regulation (EC) No. 1907/2006 (REACH)

**National regulatory information**



according to Regulation (EC) No 1907/2006

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Employment restrictions: Observe restrictions to employment for juveniles according to the 'juvenile work protection guideline' (94/33/EC). Observe employment restrictions under the Maternity Protection Directive (92/85/EEC) for expectant or nursing mothers.

Water hazard class (D): 3 - highly hazardous to water

**Additional information**

Restricted to professional users.

The receiver of our product is singularly responsible for adhering to existing laws and regulations. Observe in addition any national regulations!

**15.2. Chemical safety assessment**

For this substance a chemical safety assessment has been carried out.

**SECTION 16: Other information****Changes**

This data sheet contains changes from the previous version in section(s): 1,2,3,7,8,9,10,11,12,15.

**Relevant H and EUH statements (number and full text)**

H332	Harmful if inhaled.
H350	May cause cancer.
H361d	Suspected of damaging the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.

**Further Information**

The information is based on the present level of our knowledge. It does not, however, give assurance of product properties and establishes no contract legal rights.