



# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830  
Issue date: 15.11.2001 Revision date: 6/29/2020

Version: 14.0

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

#### 1.1. Product identifier

Product form : Substance (UVCB)  
Trade name : Heavy Fuel Oil  
Chemical name : Hydrodesulfurized gas oils (petroleum), heavy vacuum  
IUPAC name : Hydrodesulfurized gas oils (petroleum), heavy vacuum  
EC Index-No. : 649-024-00-9  
EC-No. : 270-675-6  
CAS-No. : 68476-33-5  
REACH registration No : 01-2119474894-22-0093  
Product code : 12010130  
Synonyms : Hydrodesulfurized gas oils (petroleum), heavy vacuum

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

##### 1.2.1. Relevant identified uses

Main use category : Industrial use,Professional use  
Industrial/Professional use spec : Manufacture of substance  
Distribution of substance  
Formulation & (re)packing of substances and mixtures  
Road and construction applications  
Use as an intermediate  
Use as a fuel  
Uses in Coatings  
Function or use category : Fuels, Construction materials additives, Intermediates

##### 1.2.2. Uses advised against

No additional information available

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

SLOVNAFT, a.s.  
Vlčie hrdlo 1  
824 12 Bratislava - Slovakia  
T +421-(0)2/4055-1111 - F +421-(0)2/5859-9759  
[info@slovnaft.sk](mailto:info@slovnaft.sk) - [www.slovnaft.sk](http://www.slovnaft.sk)

#### 1.4. Emergency telephone number

Emergency number : Podnikový dispečing 1: ++0421(0)2/4055 3344

Country	Organisation/Company	Address	Emergency number	Comment
Ireland	National Poisons Information Centre Beaumont Hospital	PO Box 1297 Beaumont Road 9 Dublin	+353 1 809 2566 (Healthcare professionals- 24/7) +353 1 809 2166 (public, 8am - 10pm, 7/7)	
Israel	Israel Poison Information Center Rambam Health Care Campus	6 Ha'Aliya Street 31096 Haifa	+972 4 854 1900	
Malta	Medicines & Poisons Info Office	Mater Dei Hospital MSD Msida	+356 2545 6504	
United Kingdom	National Poisons Information Service (Belfast Centre) Royal Victoria Hospital	Grosvenor Road BT12 6BA Belfast	0344 892 0111	
United Kingdom	National Poisons Information Service (Birmingham Centre) City Hospital	Dudley Road B18 7QH Birmingham	0344 892 0111	

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

United Kingdom	National Poisons Information Service (Cardiff Centre) Gwenwyn Ward, Llandough Hospital	Penarth CF64 2XX Cardiff	0344 892 0111	
United Kingdom	National Poisons Information Service Edinburgh Royal Infirmary of Edinburgh	Little France Crescent EH16 4SA Edinburgh	0344 892 0111	
United Kingdom	Guy's & St Thomas' Poisons Unit Medical Toxicology Unit, Guy's & St Thomas' Hospital Trust	Avonley Road SE14 5ER London	+44 20 7188 7188	
United Kingdom	National Poisons Information Service (Newcastle Centre) Regional Drugs and Therapeutics Centre, Wolfson Unit	Claremont Place Newcastle-upon-Tyne NE1 4LP Newcastle	0344 892 0111	

## SECTION 2: Hazards identification

### 2.1. Classification of the substance or mixture

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

Acute toxicity (inhal.), Category 4	H332
Carcinogenicity, Category 1B	H350
Reproductive toxicity, Category 2	H361
Specific target organ toxicity — Repeated exposure, Category 2	H373
Aspiration hazard, Category 1	H304
Hazardous to the aquatic environment — Acute Hazard, Category 1	H400
Full text of H statements : see section 16	

#### Adverse physicochemical, human health and environmental effects

No additional information available

### 2.2. Label elements

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

Hazard pictograms (CLP)



Signal word (CLP)

: Danger

Hazard statements (CLP)

: H304 - May be fatal if swallowed and enters airways.  
H332 - Harmful if inhaled.  
H350 - May cause cancer.  
H361 - Suspected of damaging fertility or the unborn child.  
H373 - May cause damage to organs through prolonged or repeated exposure.  
H400 - Very toxic to aquatic life.

: P201 - Obtain special instructions before use.  
P280 - Wear protective gloves/protective clothing/eye protection/face protection.  
P301+P310+P331 - IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician. Do NOT induce vomiting.  
P308+P313 - IF exposed or concerned: Get medical advice/attention.  
P312 - Call a POISON CENTRE or doctor if you feel unwell.  
P391 - Collect spillage.

EUH-statements

: EUH066 - Repeated exposure may cause skin dryness or cracking.

### 2.3. Other hazards

No additional information available

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 3: Composition/information on ingredients

#### 3.1. Substances

Substance type : UVCB

Name	Product identifier		% (w/w) Concentration (range)	Classification according to Regulation (EC) No 1272/2008 [CLP/GHS]
	CAS No	EC no		
SN / 270-675-6 / Fuel oil, residual	68476-33-5	270-675-6	100	Asp. Tox. 1, H304 Acute Tox. 4 (Inhalation), H332 Repr. 2, H361 Carc. 1B, H350 STOT RE 2, H373 Aquatic Acute 1, H400 Aquatic Chronic 1, H410
aromatic hydrocarbons			36.6	Not classified
saturated hydrocarbons			23.9	Not classified
polar hydrocarbons			23.8	Not classified
asphaltenes			15.7	Not classified
sulfur	7704-34-9	231-722-6	≤ 1,0	Skin Irrit. 2, H315

#### 3.2. Mixtures

Not applicable

### SECTION 4: First aid measures

#### 4.1. Description of first aid measures

First-aid measures general

: Hydrogen sulphide (H<sub>2</sub>S) can accumulate in the headspace of product storage tanks and reach potentially hazardous concentrations.

First-aid measures after inhalation

: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. If casualty is unconscious and: Not breathing. Ensure that there is no obstruction to breathing and give artificial respiration by trained personnel. If necessary, give external cardiac massage and obtain medical advice. Breathing. Place in the recovery position. Administer oxygen if necessary. Obtain medical assistance if breathing remains difficult. If there is any suspicion of inhalation of H<sub>2</sub>S (hydrogen sulphide). Rescuers must wear breathing apparatus, belt and safety rope, and follow rescue procedures. Remove casualty to fresh air as quickly as possible. Immediately begin artificial respiration if breathing has ceased. Provision of oxygen may help. Obtain medical advice for further treatment.

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

First-aid measures after skin contact	: Remove contaminated clothing, contaminated footwear and dispose of safely. Wash affected area with soap and water. Seek medical attention if skin irritation, swelling or redness develops and persists. When using high-pressure equipment, injection of product can occur. If high-pressure injuries occur, immediately seek professional medical attention. Do not wait for symptoms to develop. For minor thermal burns, cool the burn. Hold the burned area under cold running water for at least five minutes, or until the pain subsides. Body hypothermia must be avoided. Do not put ice on the burn. Remove non-sticking garments carefully. DO NOT attempt to remove portions of clothing glued to burnt skin but cut round them. Seek medical attention in all cases of serious burns.
First-aid measures after eye contact	: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do so. Continue rinsing. If irritation, blurred vision or swelling occurs and persists, obtain medical advice from a specialist. If hot product is splashed into the eye, it should be cooled down immediately to dissipate heat, under cold running water. Immediately obtain specialist medical assessment and treatment for the casualty.
First-aid measures after ingestion	: Do not induce vomiting. Ask for medical advice. Do not give anything by mouth to an unconscious person.

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

Symptoms/effects after inhalation	: irritation of the respiratory tract due to excess fume, mists or vapour exposure.
Symptoms/effects after skin contact	: dry skin. Irritation may arise in case of repeated or prolonged exposure. May cause burn in case of contact with product at high temperature.
Symptoms/effects after eye contact	: Slight eye irritation. May cause burn in case of contact with product at high temperature.
Symptoms/effects after ingestion	: few or no symptoms expected. If any, nausea and diarrhoea might occur.

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

Never use gasoline, kerosene or other solvents for washing of contaminated skin.

## SECTION 5: Firefighting measures

### 5.1. Extinguishing media

Suitable extinguishing media	: Foam (trained personnel only). Water fog (trained personnel only). Dry chemical powder. Carbon dioxide. Other inert gases (subject to regulations). Sand or earth.
Unsuitable extinguishing media	: Do not use direct water jets on the burning product. they could cause splattering and 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

No additional information available

### 5.3. Advice for firefighters

Protection during firefighting	: In case of a large fire or in confined or poorly ventilated spaces, wear full fire resistant protective clothing and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.
Other information	: Incomplete combustion is likely to give rise to a complex mixture of airborne solid and liquid particulates, gases, including carbon monoxide. H <sub>2</sub> S, SO <sub>x</sub> (sulfur oxides) or sulfuric acid. unidentified organic and inorganic compounds.

# Heavy Fuel Oil, sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SECTION 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

##### 6.1.1. For non-emergency personnel

Protective equipment

: Small spillages: normal antistatic working clothes are usually adequate. Large spillages: full body suit of chemically resistant and antistatic material. if necessary heat resistant and insulated. Work gloves providing adequate chemical resistance, specifically to aromatic hydrocarbons. gloves made of PVA are not water-resistant, and are not suitable for emergency use. If contact with hot product is possible or anticipated, gloves should be heat-resistant and thermally insulated. Work helmet. Antistatic non-skid safety shoes or boots. if necessary heat-resistant. Goggles and /or face shield, if splashes or contact with eyes is possible or anticipated. Respiratory protection: a half or full-face respirator with filter(s) for organic vapours/H<sub>2</sub>S, or a Self-contained Breathing Apparatus (SCBA) can be used according to the extent of spill and predictable amount of exposure. If the situation cannot be completely assessed, or if an oxygen deficiency is possible, only SCBA's should be used.

Emergency procedures

: Stop or contain leak at the source, if safe to do so. Avoid direct contact with released material. Stay upwind. In case of large spillages, alert occupants in downwind areas. Keep non-involved personnel away from the area of spillage. Alert emergency personnel. Except in case of small spillages. The feasibility of any actions should always be assessed and advised, if possible, by a trained, competent person in charge of managing the emergency. Eliminate all ignition sources if safe to do so (e.g. electricity, sparks, fires, flares. If required, notify relevant authorities according to all applicable regulations. When the presence of dangerous amounts of H<sub>2</sub>S around the spilled product is suspected or proved, additional or special actions may be warranted, including access restrictions, use of special protection equipment, procedures and personnel training. If necessary dike the product with dry earth, sand or similar non-combustible materials. Let molten material cool naturally. Large spillages may be cautiously covered with foam, if available, to limit vapour cloud formation. Do not use direct jets. When inside buildings or confined spaces, ensure adequate ventilation.

##### 6.1.2. For emergency responders

No additional information available

#### 6.2. Environmental precautions

Prevent product from entering sewers, rivers or other bodies of water, or underground spaces (tunnels, cellars, etc.). Absorb spilled product with suitable non-combustible materials. Collect free product with suitable mechanical means. Collect recovered product and other materials in suitable tanks or containers for recovery or safe disposal. In case of soil contamination, remove contaminated soil and treat in accordance with local regulations. Product less dense than water: In case of small spillages in closed waters, contain product with floating barriers or other equipment. Collect spilled product by absorbing with specific floating absorbents. If possible, large spillages in open waters should be contained with floating barriers or other mechanical means. If this not possible, control the spreading of the spillage, and collect the product by skimming or other suitable mechanical means. The use of dispersants should be advised by an expert, and, if required, approved by local authorities. Product which is denser than water will sink to the bottom, and usually no intervention will be feasible. If possible, collect the product and contaminated materials with mechanical means, and store/dispose of according to relevant regulations. In special situations (to be assessed on case-by case basis, according to expert judgement and local conditions), excavations of trenches on the bottom to collect the product, or burying the product with sand may be a feasible option.

#### 6.3. Methods and material for containment and cleaning up

For containment

: Recommended measures are based on the most likely spillage scenarios for this material; however, local conditions (wind, air temperature, wave/current direction and speed) may significantly influence the choice of appropriate actions. For this reason, local experts should be consulted when necessary. Local regulations may also prescribe or limit actions to be taken. Concentration of H<sub>2</sub>S in tank headspaces may reach hazardous values, especially in case of prolonged storage. This situation is especially relevant for those operations which involve direct exposure to the vapours in the tank. Spillages of limited amounts of product, especially in the open air when vapours will be usually quickly dispersed, are dynamic situations, which will presumably limit the exposure to dangerous concentrations. As H<sub>2</sub>S has a density greater than ambient air, a possible exception may regard the build-up of dangerous concentrations in specific spots, like trenches, depressions or confined spaces. In all these circumstances, however, the correct actions should be assessed on a case-by-case basis.

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 6.4. Reference to other sections

No additional information available

## SECTION 7: Handling and storage

### 7.1. Precautions for safe handling

Precautions for safe handling : Obtain special instructions before use. Ensure that all relevant regulations regarding handling and storage facilities of flammable products are followed. Keep away from heat/sparks/open flames/hot surfaces. Do not eat, drink or smoke when using this product. A specific assessment of inhalation risks from the presence of H<sub>2</sub>S in tank headspaces, confined spaces, product residue, tank waste and waste water, and unintentional releases must be made to help determine controls appropriate to local circumstances. Avoid contact with the hot product. Avoid release to the environment. Take precautionary measures against static electricity. Ground/bond containers, tanks and transfer/receiving equipment. The vapour is heavier than air. Beware of accumulation in pits and confined spaces. Avoid contact with skin. Precautions should be taken to avoid skin burns when handling hot product. Use adequate personal protective equipment as required. For more information regarding protective equipment and operational conditions see Exposure scenarios. Do not breathe vapours. Ensure that proper housekeeping measures are in place. Contaminated materials should not be allowed to accumulate in the workplaces and should never be kept inside the pockets. Keep away from food and beverages. Wash the hands thoroughly after handling. Change contaminated clothes at the end of working shift.

### 7.2. Conditions for safe storage, including any incompatibilities

Technical measures : Before entering storage tanks and commencing any operation in a confined area, check the atmosphere for oxygen content, hydrogen sulphide (H<sub>2</sub>S) and flammability. Empty containers may contain flammable product residues. Do not weld, solder, drill, cut or incinerate empty containers, unless they have been properly cleaned.

Storage conditions : Cleaning, inspection and maintenance of internal structure of storage tanks must be done only by properly equipped and qualified personnel as defined by national, local or company regulations. Store in a well-ventilated place.

Storage area : Use and store only outdoors or in a well-ventilated area. Storage area layout, tank design, equipment and operating procedures must comply with the relevant European, national or local legislation. Storage installations should be designed with adequate bunds in case of leaks or spills. Store separately from oxidising agents.

Special rules on packaging : If the product is supplied in containers: Keep only in the original container or in a suitable container for this kind of product. Keep containers tightly closed and properly labelled.

Packaging materials : Recommended materials: For containers, or container linings use materials specifically approved for use with this product. some synthetic materials may be unsuitable for containers or container linings depending on the material specification and intended use. Compatibility should be checked with the manufacturer.

### 7.3. Specific end use(s)

This substance is handled under Strictly Controlled Conditions in accordance with REACH regulation Article 17(3) for on-site isolated intermediates. in case the substance is transported to other sites for further processing, the substance should be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4). Site documentation to support safe handling arrangements including the selection of engineering, administrative and personal protective equipment controls in accordance with risk-based management systems is available at each manufacturing site. Written confirmation of application of Strictly Controlled Conditions has been received from every affected Distributor and Downstream Processor/User of the Registrant's intermediate.

## SECTION 8: Exposure controls/personal protection

### 8.1. Control parameters

#### Vacuum distillate from VGH (68476-33-5)

#### EU - Occupational Exposure Limits

IOELV TWA (mg/m <sup>3</sup> )	0.002 mg/m <sup>3</sup> benzo(a)pyrene
--------------------------------	--

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### Vacuum distillate from VGH (68476-33-5)

IOELV STEL (mg/m <sup>3</sup> )	0.01 mg/m <sup>3</sup> benzo(a)pyrene
---------------------------------	---------------------------------------

### SN / 231-722-6 / sulfur (7704-34-9)

#### EU - Occupational Exposure Limits

IOELV TWA (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> other fast aerosol
--------------------------------	---

#### Slovakia - Occupational Exposure Limits

NPEL (priemerný) (mg/m <sup>3</sup> )	10 mg/m <sup>3</sup> other fast aerosol
---------------------------------------	---

### Vacuum distillate from VGH (68476-33-5)

#### DNEL/DMEL (Workers)

Acute - systemic effects, inhalation	4700 mg/m <sup>3</sup> / 15 min
Long-term - systemic effects, dermal	0.065 mg/kg bodyweight/day
Long-term - systemic effects, inhalation	0.12 mg/m <sup>3</sup> / 8 h

#### DNEL/DMEL (General population)

Long-term - systemic effects,oral	0.015 mg/kg bodyweight/day / 24 h
-----------------------------------	-----------------------------------

#### PNEC (Oral)

PNEC oral (secondary poisoning)	66.7 mg/kg food Hazard for predators
---------------------------------	--------------------------------------

DNEL : 0.12 mg/m<sup>3</sup> workers:Long term exposure, Systematic, inhalation

## 8.2. Exposure controls

### Personal protective equipment:

Gloves. Protective goggles.

### Hand protection:

Wear chemically resistant gloves (tested to EN374) in combination with specific activity training. Gloves must be periodically inspected and changed in case of wear, perforations or contaminations.

### Eye protection:

If splashing is likely, full head and face protection (protective shield and/or safety goggles) should be used. If contact is likely, a protection (protective shield and/or safety goggles) should be used.

### Skin and body protection:

Wear suitable coveralls to prevent exposure to the skin. Coveralls should be changed at the end of the work shift and cleaned as necessary to avoid transfer of product to clothes or underwear.

### Respiratory protection:

to avoid respiratory tract irritation inhalation exposure should be kept to a minimum. If exposure levels cannot be determined or estimated with adequate confidence, or an oxygen deficiency is possible, only SCBA's should be used. If necessary, approved respiratory protection equipment shall be used when handling hot product in confined spaces: enclosed face mask with cartridge/filter type "A" or self-contained breathing apparatus (SCBA). Change filter cartridge on respirator daily

### Personal protective equipment symbol(s):



# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### Thermal hazard protection:

None in normal conditions.

### Environmental exposure controls:

Store finished products in closed containers (e.g. bulk tanks, drums, cans). Store all VOC-containing wastes in closed, secure containers (e.g. bulk tanks, intermediate bulk containers, drums). Incinerate, absorb, or adsorb vapours stripped from solution whenever necessary. Carefully handle the substance to minimise releases.

### Consumer exposure controls:

Substance registered as Isolated intermediate under SCC). This substance is handled under Strictly Controlled Conditions in accordance with REACH regulation Article 17(3) for on-site isolated intermediates. In case the substance is transported to other sites for further processing, the substance should be handled at these sites under the Strictly Controlled Conditions as specified in REACH regulation Article 18(4). Site documentation to support safe handling arrangements including the selection of engineering, administrative and personal protective equipment controls in accordance with risk-based management systems is available at each manufacturing site. Written confirmation of application of Strictly Controlled Conditions has been received from every affected Distributor and Downstream Processor/User of the Registrant's intermediate.

## SECTION 9: Physical and chemical properties

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

Physical state	: Liquid
Appearance	: Viscous.
Colour	: Yellow or orange-yellow.
Odour	: aromatic odour.
Odour threshold	: No data available
pH	: No data available
Relative evaporation rate (butylacetate=1)	: No data available
Melting point	: No data available
Freezing point	: No data available
Boiling point	: 300 – 585 °C
Flash point	: No data available
Auto-ignition temperature	: No data available
Decomposition temperature	: No data available
Flammability (solid, gas)	: No data available
Vapour pressure	: No data available
Relative vapour density at 20 °C	: No data available
Relative density	: No data available
Density	: ≤ 920 g/m <sup>3</sup> at 15°C
Solubility	: No data available
Partition coefficient n-octanol/water (Log Pow)	: No data available
Viscosity, kinematic	: ≥ 25 mm <sup>2</sup> /s at 50°C
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidising properties	: No data available
Explosive limits	: No data available

### 9.2. Other information

No additional information available

## SECTION 10: Stability and reactivity

### 10.1. Reactivity

This substance is stable under all ordinary circumstances at ambient temperatures, and if released into the environment.

### 10.2. Chemical stability

Stable under normal conditions.

### 10.3. Possibility of hazardous reactions

Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard.



# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### 10.4. Conditions to avoid

They may be ignited by heat, sparks, static electricity or flames.

### 10.5. Incompatible materials

A mixture with nitrates or other strong oxidisers (e.g. chlorates, perchlorates, liquid oxygen) may create an explosive mass.

### 10.6. Hazardous decomposition products

No decomposition if stored normally.

## SECTION 11: Toxicological information

### 11.1. Information on toxicological effects

Acute toxicity (oral) : Not classified  
Acute toxicity (dermal) : Not classified  
Acute toxicity (inhalation) : Harmful if inhaled.

#### SN / 270-675-6 / Vacuum distillate from VGH (68476-33-5)

LD50 oral rat	> 5000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	4.1 mg/l

#### SN / 231-722-6 / sulfur (7704-34-9)

LD50 oral rat	> 2000 mg/kg
LD50 dermal rat	> 2000 mg/kg
LC50 inhalation rat (mg/l)	5430 mg/m <sup>3</sup>

Skin corrosion/irritation : Not classified  
Serious eye damage/irritation : Not classified  
Respiratory or skin sensitisation : Not classified  
Germ cell mutagenicity : Not classified  
Carcinogenicity : May cause cancer.

Reproductive toxicity : Suspected of damaging fertility or the unborn child.

STOT-single exposure : Not classified

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

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

#### Vacuum distillate from VGH (68476-33-5)

Viscosity, kinematic	≥ 25 mm <sup>2</sup> /s at 50°C
----------------------	---------------------------------

## SECTION 12: Ecological information

### 12.1. Toxicity

Hazardous to the aquatic environment, short-term (acute) : Very toxic to aquatic life.  
Hazardous to the aquatic environment, long-term (chronic) : Not classified

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### SN / 270-675-6 / Vacuum distillate from VGH (68476-33-5)

LC50 fish 1	79 mg/l
LC50 fish 2	0.1 mg/l
EC50 Daphnia 1	2 mg/l
EC50 Daphnia 2	0.27 mg/l
EC50 other aquatic organisms 1	0.75 mg/l

### SN / 231-722-6 / sulfur (7704-34-9)

LC50 fish 1	< 5 µg/l
LC50 other aquatic organisms 2	< 5 mg/l
EC50 Daphnia 1	< 5 µg/l
EC50 Daphnia 2	< 100 mg/l

## 12.2. Persistence and degradability

### SN / 270-675-6 / Vacuum distillate from VGH (68476-33-5)

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

## 12.3. Bioaccumulative potential

### SN / 270-675-6 / Vacuum distillate from VGH (68476-33-5)

Bioconcentration factor (BCF REACH)	Maximal biodegradation is 44%
Bioaccumulative potential	May accumulate in organisms.

## 12.4. Mobility in soil

No additional information available

## 12.5. Results of PBT and vPvB assessment

Component	
SN / 270-675-6 / Vacuum distillate from VGH (68476-33-5)	Anthracene is not present in this substance at greater than 0,1%. No other representative hydrocarbons structures were found to meet the PBT / vPvB criteria.
SN / 231-722-6 / sulfur (7704-34-9)	PBT and vPvB assessment is not required for inorganic substances

## 12.6. Other adverse effects

No additional information available

# SECTION 13: Disposal considerations

## 13.1. Waste treatment methods

Regional legislation (waste)	: DIRECTIVE 2008/98/EC OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL of 19 November 2008 on waste and repealing certain Directives.
Waste treatment methods	: Contain and dispose of waste according to local regulations. External recovery and recycling of waste should comply with applicable local and/or national regulations. External treatment and disposal of waste should comply with applicable local and/or national regulations. Where possible (e.g. in the absence of relevant contamination), recycling of used substance is feasible and recommended.
Sewage disposal recommendations	: Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Do not empty into drains; dispose of this material and its container in a safe way.
Waste disposal recommendations	: Clear up spills immediately and dispose of waste safely. Dispose of waste or used sacks/containers according to local regulations.

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

Additional information	: (*) Hazardous waste according to Directive 91/689/EEC. European Waste Catalogue code(s) (Decision 2001/118/CE): The final user has the responsibility for the attribution of the most suitable code, according to the actual use(s) of the material, contaminations or alterations.
Ecology - waste materials	: hazardous waste. Avoid any discharge of the product into waste water. Disposal in high-temperature incinerator (> 1200 °C).
EWC (EURAL) code	: 13 07 01* - fuel oil and diesel 15 01 01 - paper and cardboard packaging

## SECTION 14: Transport information

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

### 14.1. UN number

UN-No. (ADR)	: UN 3082
UN-No. (IMDG)	: UN 3082
UN-No. (IATA)	: UN 3082
UN-No. (ADN)	: UN 3082
UN-No. (RID)	: UN 3082

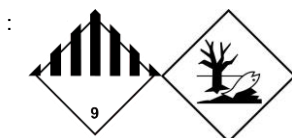
### 14.2. UN proper shipping name

Proper Shipping Name (ADR)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil)
Proper Shipping Name (IMDG)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil)
Proper Shipping Name (IATA)	: Environmentally hazardous substance, liquid, n.o.s. (Heavy Fuel Oil)
Proper Shipping Name (ADN)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Vac Heavy Fuel Oil)
Proper Shipping Name (RID)	: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil)
Transport document description (ADR)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil), 9, III, (E)
Transport document description (IMDG)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil), 9, III, MARINE POLLUTANT
Transport document description (IATA)	: UN 3082 Environmentally hazardous substance, liquid, n.o.s. (Heavy Fuel Oil), 9, III
Transport document description (ADN)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil), 9, III
Transport document description (RID)	: UN 3082 ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Heavy Fuel Oil), 9, III

### 14.3. Transport hazard class(es)

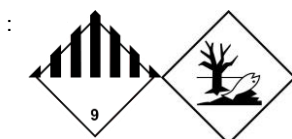
#### ADR

Transport hazard class(es) (ADR)	: 9
Danger labels (ADR)	: 9



#### IMDG

Transport hazard class(es) (IMDG)	: 9
Danger labels (IMDG)	: 9



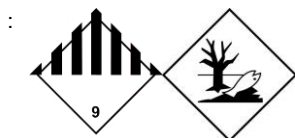
#### IATA

Transport hazard class(es) (IATA)	: 9
Danger labels (IATA)	: 9

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830



### ADN

Transport hazard class(es) (ADN) : 9

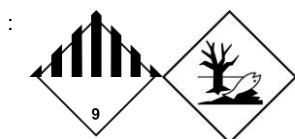
Danger labels (ADN) : 9



### RID

Transport hazard class(es) (RID) : 9

Danger labels (RID) : 9



## 14.4. Packing group

Packing group (ADR) : III

Packing group (IMDG) : III

Packing group (IATA) : III

Packing group (ADN) : III

Packing group (RID) : III

## 14.5. Environmental hazards

Dangerous for the environment : Yes

Marine pollutant : Yes

Other information : No supplementary information available

## 14.6. Special precautions for user

### Overland transport

Classification code (ADR) : M6

Special provisions (ADR) : 274, 335, 601, 375

Limited quantities (ADR) : 5I

Excepted quantities (ADR) : E1

Packing instructions (ADR) : P001, IBC03, LP01, R001

Special packing provisions (ADR) : PP1

Mixed packing provisions (ADR) : MP19

Portable tank and bulk container instructions (ADR) : T4

Portable tank and bulk container special provisions (ADR) : TP1, TP29

Tank code (ADR) : LGBV

Vehicle for tank carriage : AT

Transport category (ADR) : 3

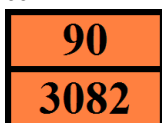
Special provisions for carriage - Packages (ADR) : V12

Special provisions for carriage - Loading, unloading

and handling (ADR)

Hazard identification number (Kemler No.) : 90

Orange plates :



Tunnel restriction code (ADR) : E

EAC code : •3Z

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

### Transport by sea

Special provisions (IMDG)	: 274, 335, 969
Limited quantities (IMDG)	: 5 L
Excepted quantities (IMDG)	: E1
Packing instructions (IMDG)	: P001, LP01
Special packing provisions (IMDG)	: PP1
IBC packing instructions (IMDG)	: IBC03
Tank instructions (IMDG)	: T4
Tank special provisions (IMDG)	: TP2, TP29
EmS-No. (Fire)	: F-A
EmS-No. (Spillage)	: S-F
Stowage category (IMDG)	: A

### Air transport

PCA Excepted quantities (IATA)	: E1
PCA Limited quantities (IATA)	: Y964
PCA limited quantity max net quantity (IATA)	: 30kgG
PCA packing instructions (IATA)	: 964
PCA max net quantity (IATA)	: 450L
CAO packing instructions (IATA)	: 964
CAO max net quantity (IATA)	: 450L
Special provisions (IATA)	: A97, A158, A197
ERG code (IATA)	: 9L

### Inland waterway transport

Classification code (ADN)	: M6
Special provisions (ADN)	: 274, 335, 375, 601
Limited quantities (ADN)	: 5 L
Excepted quantities (ADN)	: E1
Carriage permitted (ADN)	: T
Equipment required (ADN)	: PP
Number of blue cones/lights (ADN)	: 0

### Rail transport

Classification code (RID)	: M6
Special provisions (RID)	: 274, 335, 375, 601
Limited quantities (RID)	: 5L
Excepted quantities (RID)	: E1
Packing instructions (RID)	: P001, IBC03, LP01, R001
Special packing provisions (RID)	: PP1
Mixed packing provisions (RID)	: MP19
Portable tank and bulk container instructions (RID)	: T4
Portable tank and bulk container special provisions (RID)	: TP1, TP29
Tank codes for RID tanks (RID)	: LGBV
Transport category (RID)	: 3
Special provisions for carriage – Packages (RID)	: W12
Special provisions for carriage - Loading, unloading and handling (RID)	: CW13, CW31
Colis express (express parcels) (RID)	: CE8
Hazard identification number (RID)	: 90

## 14.7. Transport in bulk according to Annex II of Marpol 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

Heavy Fuel Oil is not on the REACH Candidate List

Heavy Fuel Oil is not on the REACH Annex XIV List

# Heavy Fuel Oil,sulfur to 1,0%

## Safety Data Sheet

according to Regulation (EU) 2015/830

Heavy Fuel Oil is not subject to Regulation (EU) No 649/2012 of the European Parliament and of the Council of 4 July 2012 concerning the export and import of hazardous chemicals.

Heavy Fuel Oil is not subject to Regulation (EU) No 2019/1021 of the European Parliament and of the Council of 20 June 2019 on persistent organic pollutants

### 15.1.2. National regulations

Regional legislation : 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(CLP), 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), COMMISSION REGULATION (EU) No 605/2014 of 5 June 2014 amending, for the purposes of introducing hazard and precautionary statements in the Croatian language and its adaptation to technical and scientific progress, Regulation (EC) No 1272/2008 of the European Parliament and of the Council on classification, labelling and packaging of substances and mixtures, COMMISSION REGULATION (EU) 2015/830 of 28 May 2015, amending Regulation (EC) No 1907/2006 of the European Parliament and of the Council on the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH)

### 15.2. Chemical safety assessment

No additional information available

## SECTION 16: Other information

### Full text of H- and EUH-statements:

Acute Tox. 4 (Inhalation)	Acute toxicity (inhal.), Category 4
Aquatic Acute 1	Hazardous to the aquatic environment — Acute Hazard, Category 1
Asp. Tox. 1	Aspiration hazard, Category 1
Carc. 1B	Carcinogenicity, Category 1B
Repr. 2	Reproductive toxicity, Category 2
STOT RE 2	Specific target organ toxicity — Repeated exposure, Category 2
H304	May be fatal if swallowed and enters airways.
H332	Harmful if inhaled.
H350	May cause cancer.
H361	Suspected of damaging fertility or the unborn child.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
EUH066	Repeated exposure may cause skin dryness or cracking.

SDS EU (REACH Annex II)

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.