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

1.1. Product identifier

Trade name/designation	:	Vacuum gas oil
Chemical name	:	Gas oils (petroleum), heavy vacuum
EC Index	:	649-009-00-7
EC No	:	265-058-3
CAS No.	:	64741-57-7
Formula	:	Unspecified

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

Main use category	:	Industrial use,Professional use

1.3. Details of the supplier of the safety data sheet

Company	:	Mercuria Energy Trading B.V. supplying for and on behalf of Mercuria Energy Trading S.A Herculesplein 108 3584AA Utrecht , Netherlands Telephone +41 22 594 7000 Telefax: +41 22 594 3904 E-mail: emergency@sgs.com

1.4. Emergency telephone number

Emergency telephone	:	+32 3 575 11 30 (SGS 24/7 Emergency Hotline)

IRELAND (REPUBLIC OF)
National Poisons Information Centre
Beaumont Hospital +353 18 37 99 64/+353 1 809 21 66

UNITED KINGDOM
National Poisons Information Service
(Newcastle Centre) 0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)
Regional Drugs and Therapeutics Centre,
Wolfson Unit

SECTION 2: Hazards identification

2.1. Classification of the substance or mixture

2.1.1. Classification according to Regulation (EU) 1272/2008

CLP-Classification : The product is classified as hazardous in accordance with Regulation (EC) No. 1272/2008.

Acute Tox. 4 (Inhalation:dust,mist)	H332
Carc. 1B	H350
Repr. 2	H361d
STOT RE 2	H373
Asp. Tox. 1	H304
Aquatic Acute 1	H400
Aquatic Chronic 1	H410

Full text of H-phrases: see section 16

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC

Classification : This substance is classified as hazardous according to 67/548/EEC.

Xn; R20
Carc.Cat.2; R45
Xn; R48/21
Repr.Cat.3; R63
R66
N; R50/53

Full text of R-phrases: see section 16

2.2. Label elements

2.2.1. Labelling according to Regulation (EU) 1272/2008

Hazard pictograms :

GHS07 GHS08 GHS09

Signal word : Danger

Hazard statements :
H304 - May be fatal if swallowed and enters airways.
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.

Precautionary statements :
P201 - Obtain special instructions before use.
P260 - Do not breathe dust/fume/gas/mist/vapours/spray.
P273 - Avoid release to the environment.
P281 - Use personal protective equipment as required.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.
P331 - Do NOT induce vomiting.

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

2.2.2. Labelling according to Directives (67/548 - 1999/45)

Not relevant

2.3. Other hazards

Other hazards : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

Substance name	Product identifier	%	Classification according to Directive 67/548/EEC
Gas oils (petroleum), heavy vacuum	(CAS No.) 64741-57-7 (EC No) 265-058-3 (EC Index) 649-009-00-7	100	Carc.Cat.1; R45 Xn; R20 Xn; R48/21 Repr.Cat.3; R63 N; R50/53 R66

Substance name	Product identifier	%	Classification according to Regulation (EC) No. 1272/2008 [CLP]
Gas oils (petroleum), heavy vacuum	(CAS No.) 64741-57-7 (EC No) 265-058-3 (EC Index) 649-009-00-7	100	Acute Tox. 4 (Inhalation), H332 Carc. 1B, H350 Repr. 2, H361d STOT RE 2, H373 Asp. Tox. 1, H304 Aquatic Acute 1, H400 Aquatic Chronic 1, H410

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

3.2. Mixtures

Not applicable

SECTION 4: First aid measures

4.1. Description of first aid measures

Inhalation : Remove person to fresh air and keep comfortable for breathing.
When in doubt or if symptoms are observed, get medical advice.
If breathing is irregular or stopped, administer artificial respiration.
Get immediate medical advice/attention.

Skin contact : Take off contaminated clothing.
Gently wash with plenty of soap and water.
When in doubt or if symptoms are observed, get medical advice.
In the event of a high pressure injection injury, worker should obtain immediate medical assistance.
Contact with hot product will cause thermal burns.
Immerse in cool water/wrap in wet bandages.
Get medical advice/attention.

Eye contact : Rinse immediately carefully and thoroughly with eye-bath or water.
When in doubt or if symptoms are observed, get medical advice.
Get medical advice/attention.

In case of ingestion : Rinse mouth thoroughly with water.
Do NOT induce vomiting.
Get immediate medical advice/attention.

Additional advice : First aider: Pay attention to self-protection!
Personal protection equipment: see section 8
Never give anything by mouth to an unconscious person or a person with cramps.
When in doubt or if symptoms are observed, get medical advice.
Show this safety data sheet to the doctor in attendance.
Treat symptomatically.

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

Inhalation : Harmful if inhaled. The following symptoms may occur: Irritation.

Skin contact : The following symptoms may occur: erythema (redness) Dry skin.

Eye contact : The following symptoms may occur: Swelling of tissue blurred vision Irritation.

Ingestion : May be fatal if swallowed and enters airways. The following symptoms may occur: Ingestion may cause gastrointestinal irritation, nausea, vomiting and diarrhoea.

Other adverse effects : May cause cancer. Suspected of damaging the unborn child. May cause damage to organs through prolonged or repeated exposure. (blood, thymus, liver).

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

Not applicable

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Water spray, alcohol resistant foam, Dry extinguishing powder, Carbon dioxide, inert gas, Sand, Earth .

Extinguishing media which must not be used for safety reasons : Strong water jet

5.2. Special hazards arising from the substance or mixture

Fire hazard : Combustible

Specific hazards : Heating causes rise in pressure with risk of bursting.
Hazardous combustion products:
Carbon oxides,
Organic compounds,
(As appropriate :
Sulphur oxides,
Hydrogen sulfide (H2S),
Sulphuric acid)

5.3. Advice for firefighters

Advice for firefighters : Special protective equipment for firefighters.
In case of fire: Wear self-contained breathing apparatus.
Use water spray jet to protect personnel and to cool endangered containers.
Use foam on spills to minimise vapours.
Evacuate area.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Do not allow run-off from fire-fighting to enter drains or water courses.
Dispose according to legislation.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel : Evacuate area.
Stay upwind/keep distance from source.
Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ensure that the equipment is adequately grounded.
Avoid contact with skin, eyes and clothes.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.
As appropriate :
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.

For emergency responders : Ensure procedures and training for emergency decontamination and disposal are in place.
Personal protection equipment: see section 8.

6.2. Environmental precautions

Environmental precautions : Do not allow to enter into ground-water, surface water or drains.
If the product contaminates rivers and lakes or drains inform respective authorities.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up : Stop leak if safe to do so.
Dam up.
Clean-up methods - small spillage: Absorb with liquid-binding material (e.g. sand, diatomaceous earth, acid- or universal binding agents)., Collect in closed and suitable containers for disposal.
Clean-up methods - large spillage: Large spills should be collected

mechanically (remove by pumping) for disposal., Collect in closed and suitable containers for disposal.
Use foam on spills to minimise vapours.
Site should have a spill plan to ensure that adequate safeguards are in place to minimize the impact of episodic releases.
Dispose of waste product or used containers according to local regulations.

6.4. Reference to other sections

Personal protection equipment: see section 8
Disposal: see section 13.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Handling : Provide adequate ventilation.
Use personal protective equipment as required.
Personal protection equipment: see section 8
Do not breathe vapour/spray.
Avoid contact with skin, eyes and clothes.
Take any precaution to avoid mixing with incompatible materials.
See also section 10
Ensure proper process control to avoid excess waste discharge (temperature, concentration, pH, time).
Do not allow contact with soil, surface or ground water.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Ensure that the equipment is adequately grounded.
Use explosion-proof machinery, apparatus, ventilation facilities, tools etc.
Use only non-sparking tools.
As appropriate :
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.

Advices on general occupational hygiene : Keep good industrial hygiene.
Wash hands before breaks and immediately after using the product.
When using do not eat, drink or smoke.
Keep away from food, drink and animal feedingstuffs.
Keep work clothes separately.
Take off contaminated clothing.
Wash contaminated clothing before reuse.

7.2. Conditions for safe storage, including any incompatibilities

Storage : Keep in a dry, cool and well-ventilated place.
Do not store near or with any of the incompatible materials listed in section 10.
Bund storage facilities to prevent soil and water pollution in the event of spillage.
Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
as appropriate :
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.

Packaging materials : Keep/Store only in original container.
Suitable material:

Stainless steel
Carbon steel
Unsuitable material:
synthetic material

7.3 Specific end use(s)

No data available.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Exposure limit values : Not applicable

8.2. Exposure controls

Personal protection equipment : The type of protective equipment must be selected according to the concentration and amount of the dangerous substance at the specific workplace.

Respiratory protection : In case of insufficient ventilation, wear suitable respiratory equipment.
Half-face mask (EN 140)
Full face mask (EN 136)
Filter type: ABEK / P (EN 141)
The filter class must be suitable for the maximum contaminant concentration (gas/vapour/aerosol/particulates) that may arise when handling the product. If the concentration is exceeded, self-contained breathing apparatus must be used. (EN 137)

Hand protection : Wear chemically resistant gloves (tested to EN374) ,Suitable material:,NBR (Nitrile rubber),The quality of the protective gloves resistant to chemicals must be chosen as a function of the specific working place concentration and quantity of hazardous substances.

Eye protection : Use suitable eye protection. (EN166): Safety glasses

Body protection : Wear suitable protective clothing.
Wear suitable coveralls to prevent exposure to the skin.
(Chemical protection clothing)

Thermal hazard protection : Use dedicated equipment.
Not required under normal use.

Engineering control measures : Provide adequate ventilation.
Organisational measures to prevent/limit releases, dispersion and exposure
Safe handling: see section 7 .
Use only outdoors or in a well-ventilated area.
Store locked up.

Environmental exposure controls : Comply with applicable Community environmental protection legislation.
Do not allow contact with soil, surface or ground water.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Appearance	:	liquid
Colour	:	No data available
Odour	:	characteristic
Odour threshold	:	No data available
pH	:	No data available

Melting point/freezing point	:	-1 - 13 °C
Initial boiling point and boiling range	:	No data available
Flash point	:	>= 71 °C (closed cup)
Evaporation rate	:	No data available
Flammability (solid, gas)	:	Not applicable, liquid
Upper/lower flammability or explosive limits	:	No data available
Vapour pressure	:	> 5 hPa (at 20 °C)
Vapour density	:	No data available
Density	:	0,84 g/cm³ (at 15 °C)
Relative density	:	No data available
Water solubility	:	< 0,1 g/l (at 20 °C)
Solubility in different media	:	No data available
Partition coefficient n-octanol/water	:	No data available
Auto-ignition temperature	:	No data available
Decomposition temperature	:	No data available
Viscosity	:	No data available
Explosive properties	:	Not applicable The study does not need to be conducted because there are no chemical groups associated with explosive properties present in the molecule.
Oxidising properties	:	Not applicable The classification procedure needs not to be applied because there are no chemical groups present in the molecule which are associated with oxidising properties.

9.2. Other information

No data available

SECTION 10: Stability and reactivity

10.1. Reactivity

Reactivity : Combustible
Reference to other sections: 10.5

10.2. Chemical stability

Stability : The product is stable under storage at normal ambient temperatures.

10.3. Possibility of hazardous reactions

Possibility of hazardous reactions : None under normal processing.

10.4. Conditions to avoid

Conditions to avoid : Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
Safe handling: see section 7

10.5. Incompatible materials

Incompatible materials : Oxidising substances, Safe handling: see section 7

10.6. Hazardous decomposition products

Hazardous decomposition products : Burning produces noxious and toxic fumes. Reference to other sections: 5.2

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Inhalation:dust,mist: Harmful if inhaled.

Gas oils (petroleum), heavy vacuum (64741-57-7)	
LD50/oral/rat	4320 mg/kg
LD50/dermal/rabbit	> 2000 mg/kg
ATE CLP (oral)	4320 mg/kg bodyweight

Skin corrosion/irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Serious eye damage/eye irritation : Not classified (Based on available data, the classification criteria are not met.)
pH: No data available

Respiratory or skin sensitisation : Not classified (Based on available data, the classification criteria are not met.)

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

Carcinogenicity : May cause cancer.

Reproductive toxicity : Suspected of damaging the unborn child.

STOT-single exposure : Not classified (Based on available data, the classification criteria are not met.)

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

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

Other information

Symptoms related to the physical, chemical and toxicological characteristics,For further information see section 4

SECTION 12: Ecological information

12.1. Toxicity

Toxicity : Very toxic to aquatic life with long lasting effects.

Gas oils (petroleum), heavy vacuum (64741-57-7)	
LC50 fish 1	48 mg/l (Exposure time: 96 h - Species: Brachydanio rerio [semi-static])

12.2. Persistence and degradability

Persistence and degradability : No data available
Substance is complex UVCB.

12.3. Bioaccumulative potential

Bioaccumulation : No data available
Substance is complex UVCB

Partition coefficient n-octanol/water : No data available

12.4. Mobility in soil

Mobility : No data available
Substance is complex UVCB

12.5. Results of PBT and vPvB assessment

PBT/vPvB data : This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

12.6. Other adverse effects

Other information : No data available

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Product waste: : Handle with care.
Do not allow contact with soil, surface or ground water.
Dispose of empty containers and wastes safely.
Safe handling: see section 7
Refer to manufacturer/supplier for information on recovery/recycling.
Recycling is preferred to disposal or incineration
If recycling is not possible, eliminate in accordance with local valid waste disposal regulations

Contaminated packaging : Never use pressure to empty container.
Do not pierce or burn, even after use.
Handle contaminated packages in the same way as the substance itself.
Dispose according to legislation.

List of proposed waste codes/waste designations in accordance with EWC : Classified as hazardous waste according to European Union regulations.
Waste codes should be assigned by the user, preferably in discussion with the waste disposal authorities.

SECTION 14: Transport information

14.1. UN number

UN number : 3082

14.2. UN proper shipping name

Proper Shipping Name : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
Proper shipping name IATA/IMDG : ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3. Transport hazard class(es)

14.3.1. Overland transport

Class(es) : 9 - Miscellaneous dangerous substances and articles
Hazard identification number (Kemler No.) : 90
Classification code : M6
ADR/RID-Labels : 9 - Miscellaneous dangerous substances and articles

14.3.2. Inland waterway transport (ADN)

ADN : Hazards : 9 + N1+CMR+Fp
Class (UN) : 9

14.3.3. Transport by sea

Class or Division : 9 - Miscellaneous dangerous substances and articles

14.3.4. Air transport

Class or Division : 9 - Miscellaneous dangerous substances and articles

14.4. Packing group

Packing group : III

14.5. Environmental hazards

Environmental hazards : N

Other information : ADN : N1.

14.6 Special precautions for user

Special precautions for user : No data available.

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No data available

SECTION 15: Regulatory information

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

15.1.1. EU-Regulations

The following restrictions are applicable according to Annex XVII of the REACH Regulation (EC) No 1907/2006	:
3. Liquid substances or mixtures which are regarded as dangerous in accordance with Directive 1999/45/EC or are fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008	: Vacuum gas oil
28. Substances which appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 classified as Carcinogen category 1A or 1B (Table 3.1) or Carcinogen category 1 or 2 (Table 3.2) and listed as follows: Carcinogen category 1A (Table 3.1)/Carcinogen category 1 (Table 3.2) listed in Appendix 1 Carcinogen category 1B (Table 3.1)/Carcinogen category 2 (Table 3.2) listed in Appendix 2	: Vacuum gas oil
This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.	: None
Authorisations	: Not applicable

15.1.2. National regulations

DE :	WGK	:	3
DE :	TA-Luft	:	Carcinogenic substances
DE :	Technische Regeln für Gefahrstoffe (TRGS)	:	applicable
FR :	Installations classées	:	117X
NL :	ABM	:	3 - May cause cancer. (A)
NL :	NeR (Nederlandse emissie Richtlijn)	:	Organic substances in vapour or gaseous form
NO :	Produktforskriften (FOR 2004-06-01 nr 922)	:	Carcinogen

15.2. Chemical safety assessment

Chemical Safety Assessment : For this substance a chemical safety assessment has not been carried out.

SECTION 16: Other information

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

Acute Tox. 4 (Inhalation)	:	Acute toxicity (inhal.), Category 4
Acute Tox. 4 (Inhalation:dust,mist)	:	Acute toxicity Category 4
Aquatic Acute 1	:	Hazardous to the aquatic environment - Aquatic Acute 1
Aquatic Chronic 1	:	Hazardous to the aquatic environment - chronic hazard category 1
Asp. Tox. 1	:	Aspiration hazard, Category 1
Carc. 1B	:	Carcinogenicity, Category 1B
Repr. 2	:	Reproductive toxicity, Hazard 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.
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.
R20	:	Harmful by inhalation.
R45	:	May cause cancer.
R48/21	:	Harmful: danger of serious damage to health by prolonged exposure in contact with skin.
R50/53	:	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R63	:	Possible risk of harm to the unborn child.
R66	:	Repeated exposure may cause skin dryness or cracking.
N	:	Dangerous for the environment
Xn	:	Harmful

Key literature references and sources for data : LOLI

Abbreviations and acronyms :
DNEL = Derived No Effect Level
Derived minimal effect level
Predicted No Effect Concentration
Occupational Exposure Limits - Short Term Exposure Limits (STELs)
time weighted average
Median lethal concentration
Median lethal dose
Median lethal level
EC50 = Median Effective Concentration
EL50 = Median effective level
ErC50 = EC50 in terms of reduction of growth rate
ErL50 = EL50 in terms of reduction of growth rate
No-observed-effect level
NOEC = No observed effect concentration
NOELR = No observed effect loading rate
NOAEC = No observed adverse effect concentration
NOAEL = No observed adverse effect level
European Waste Catalogue
Not applicable
N.O.S. = Not Otherwise Specified
Volatile organic compounds
mg/kg bodyweight
Quantitative structure-acivity relationship (QSAR)
ADN = Accord Européen relatif au Transport International des Marchandises Dangereuses par voie de Navigation du Rhin
ADR = Accord européen relatif au transport international des marchandises Dangereuses par Route

CLP = Classification, Labelling and Packaging Regulation according to 1272/2008/EC
IATA = International Air Transport Association
IMDG = International Maritime Dangerous Goods Code
LEL = Lower Explosive Limit/Lower Explosion Limit
UEL = Upper Explosion Limit/Upper Explosive Limit
REACH = Registration, Evaluation, Authorisation and Restriction of Chemicals
WGK = Wassergefährdungsklasse (Water Hazard Class under German Federal Water Management Act)
ABM = Algemene beoordelingsmethodiek
BTT = Breakthrough time (maximum wearing time)
STOT = Specific Target Organ Toxicity

The contents and format of this SDS are in accordance with EEC Commission Directive 1999/45/EC, 67/548/EC, 1272/2008/EC and EEC Commission Regulation 1907/2006/EC (REACH) Annex II.