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

1.1. Product identifier

- **Trade name/designation**: Kerosine (petroleum)
- **EC Index**: 649-404-00-4
- **EC No**: 232-366-4
- **CAS No.**: 8008-20-6
- **Formula**: Unspecified
- **Synonyms**: Kerosene / Kerosine / Kerosine (petroleum) / DEODORIZED KEROSENE / Kerosine, petroleum (Straight Run, Kerosene (petroleum). A complex combination of hydrocarbons produced by the distillation of crude oil. It consists of hydrocarbons having carbon numbers predominantly in the range of C9-16 and boiling in the range of approximately 180-300°C.) / Kerosene, jet fuel

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

- **Main use category**: Industrial use, Professional use, Consumer 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)
Regional Drugs and Therapeutics Centre, Wolfson Unit
0844 892 0111 (UK only, Monday to Friday, 08.00 to 18.00 hours)

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.
  - Flam. Liq. 3: H226
  - Skin Irrit. 2: H315
  - STOT SE 3: H336
  - Asp. Tox. 1: H304
  - Aquatic Chronic 2: H411

Full text of H-phrases: see section 16

2.1.2. Classification according to EU Directives 67/548/EEC or 1999/45/EC
Kerosine (petroleum)

Classification: This substance is classified as hazardous according to 67/548/EEC.
Xn; R65
Xi; R38
N; R51/53
R10

Full text of R-phrases: see section 16

2.2. Label elements

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

Hazard pictograms:

- GHS02
- GHS07
- GHS08
- GHS09

Signal word: Danger

Hazard statements:
H226 - Flammable liquid and vapour.
H304 - May be fatal if swallowed and enters airways.
H315 - Causes skin irritation.
H336 - May cause drowsiness or dizziness.
H411 - Toxic to aquatic life with long lasting effects.

Precautionary statements:
P102 - Keep out of reach of children.
P210 - Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P280 - Wear protective gloves/protective clothing/eye protection/face protection.
P301+P310 - IF SWALLOWED: Immediately call a POISON CENTER/doctor/.
P331 - Do NOT induce vomiting.
P501 - Dispose of contents/container to an approved waste disposal plant.

2.2.2. Labelling according to Directives (67/548 - 1999/45)
Not relevant

2.3. Other hazards

Other hazards:
Vapours can form explosive mixtures with air.
This substance does not meet the PBT/vPvB criteria of REACH, annex XIII.

SECTION 3: Composition/information on ingredients

3.1. Substances

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Directive 67/548/EEC</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine (petroleum)</td>
<td>(CAS No.) 8008-20-6</td>
<td>100</td>
<td>Xn; R65</td>
</tr>
<tr>
<td></td>
<td>(EC No) 233-366-4</td>
<td></td>
<td>Xi; R38</td>
</tr>
<tr>
<td></td>
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<td>N; R51/53</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>R10</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Substance name</th>
<th>Product identifier</th>
<th>%</th>
<th>Classification according to Regulation (EC No. 1272/2008 [CLP])</th>
</tr>
</thead>
<tbody>
<tr>
<td>Kerosine (petroleum)</td>
<td>(CAS No.) 8008-20-6</td>
<td>100</td>
<td>Flam. Liq. 3, H226</td>
</tr>
<tr>
<td></td>
<td>(EC No) 233-366-4</td>
<td></td>
<td>Skin Irr. 2, H315</td>
</tr>
<tr>
<td></td>
<td>(EC Index) 649-404-00-4</td>
<td></td>
<td>STOT SE 3, H336</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Asp. Tox. 1, H304</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic 2, H411</td>
</tr>
</tbody>
</table>

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

3.2. Mixtures
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.

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:
May cause drowsiness or dizziness. Impaired consciousness. The following symptoms may occur: Vomiting, Nausea, Headache.

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

Eye contact:
Irritation, The following symptoms may occur: erythema (redness).

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

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

No data available

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:
Flammable liquid and vapour.

Specific hazards:
Heating causes rise in pressure with risk of bursting. Vapours can form explosive mixtures with air. Vapours are heavier than air, spread along floors and form explosive mixtures.
Kerosine (petroleum)

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.
- Do not allow run-off from fire-fighting to enter drains or water courses.
- Dispose according to legislation.
- Evacuate area.

**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.
- Avoid contact with skin, eyes and clothes.
- 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.

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**

- Storage of flammable liquids
  - 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
7.3 **Specific end use(s)**

No data available.

### SECTION 8: Exposure controls/personal protection

#### 8.1. Control parameters

**Exposure limit values**

<table>
<thead>
<tr>
<th>Country</th>
<th>Limit value (mg/m³)</th>
<th>Note</th>
</tr>
</thead>
<tbody>
<tr>
<td>Belgium</td>
<td>200 mg/m³ (application limited to exposure conditions to negligible aerosols-total hydrocarbon vapor)</td>
<td></td>
</tr>
<tr>
<td>Bulgaria</td>
<td>300,0 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Italy - Portugal - USA ACGIH</td>
<td>200 mg/m³ (application restricted to conditions in which there are negligible aerosol exposures-total hydrocarbon vapor)</td>
<td></td>
</tr>
<tr>
<td>Poland NDS</td>
<td>100 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Poland NDSCh</td>
<td>300 mg/m³</td>
<td></td>
</tr>
</tbody>
</table>

**Recommended monitoring procedures**

- Personal air monitoring
- Room air monitoring

#### 8.2. Exposure controls

**Personal protection equipment**

- **Respiratory protection**: In case of insufficient ventilation, wear suitable respiratory equipment. Half-face mask (EN 140)
- **Hand protection**: Wear chemically resistant gloves (tested to EN374), Suitable material: NBR (Nitrile rubber) (BTT > 8 h), Viton® (BTT > 8 h), Viton® / butyl-rubber (BTT > 8 h), Barrier® (PE/PA/PE) (BTT > 8 h). 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): Goggles
- **Body protection**: Wear suitable coveralls to prevent exposure to the skin.
- **Chemical protection clothing**
- **Antistatic clothing**
- **In case of large spillages**: Wear full chemical protective clothing.

**Thermal hazard protection**

- Not required under normal use.
- Use dedicated equipment.

**Engineer 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.
9.1. Information on basic physical and chemical properties

Appearance: liquid
Colour: No data available
Odour: Hydrocarbons
Odour threshold: No data available
pH: No data available
Melting point/freezing point: -48 to -26 °C
Initial boiling point and boiling range: 175 to 325 °C
Flash point: 38 to 72 °C (including Kerosene, range oil, and Jet fuel A)
Evaporation rate: No data available
Flammability (solid, gas): Not applicable, liquid
Upper/lower flammability or explosive limits: No data available
Vapour pressure: No data available
Vapour density: No data available
Density: 0.79 to 0.82 g/cm³ (at 15 °C)
Relative density: No data available
Water solubility: < 0.02 g/l
Solubility in different media: No data available
Partition coefficient n-octanol/water: No data available
Auto-ignition temperature: 210 °C
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: Flammable liquid and vapour.
Reference to other sections: 10.4 & 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: Vapours can form explosive mixtures with air.

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

Kerosine (petroleum) (8008-20-6)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50/oral/rat</td>
<td>&gt; 5000 mg/kg</td>
</tr>
<tr>
<td>LD50/dermal/rabbit</td>
<td>&gt; 2000 mg/kg</td>
</tr>
<tr>
<td>LC50/inhalation/4h/rat</td>
<td>&gt; 5.28 mg/l/4h</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Causes skin irritation. 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: Not classified (Based on available data, the classification criteria are not met.)

Reproductive toxicity: Not classified (Based on available data, the classification criteria are not met.)

STOT-single exposure: May cause drowsiness or dizziness.

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

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

Other information
Symptoms related to the physical, chemical and toxicological characteristics, Reference to other sections: 4.2

SECTION 12: Ecological information

12.1. Toxicity
Toxicity: Toxic to aquatic life with long lasting effects.
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 :

**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 : This material and its container must be disposed of as hazardous waste.
   Waste codes should be assigned by the user based on the application for which the product was used.

**SECTION 14: Transport information**

14.1. **UN number**
UN number : 1223

14.2. **UN proper shipping name**
Proper Shipping Name : KEROSENE
Proper Shipping Name (IATA) : Kerosene
Proper Shipping Name (IMDG) : KEROSENE
Proper Shipping Name (ADN) : KEROSENE

14.3. **Transport hazard class(es)**
14.3.1. Overland transport
Class(es) : 3 - Flammable liquid
Hazard identification number (Kemler No.) : 30
Classification code : F1
14.3.2. Inland waterway transport (ADN)

Class (UN) : 3

14.3.3. Transport by sea

Class or Division : 3 - Flammable liquids

14.3.4. Air transport

Class or Division : 3 - Flammable liquids

14.4. Packing group

Packing group : III

14.5. Environmental hazards

Environmental hazards : N

Other information : ADN : N2.

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:

Kerosine (petroleum)

3.b. Substances or mixtures fulfilling the criteria for any of the following hazard classes or categories set out in Annex I to Regulation (EC) No 1272/2008:

Hazard classes 3.1 to 3.6, 3.7 adverse effects on sexual function and fertility or on development, 3.8 effects other than narcotic effects, 3.9 and 3.10:

Kerosine (petroleum)
40. Substances classified as flammable gases category 1 or 2, flammable liquids categories 1, 2 or 3, flammable solids category 1 or 2, substances and mixtures which, in contact with water, emit flammable gases, category 1, 2 or 3, pyrophoric liquids category 1 or pyrophoric solids category 1, regardless of whether they appear in Part 3 of Annex VI to Regulation (EC) No 1272/2008 or not.

This product contains an ingredient according to the candidate list of Annex XIV of the REACH Regulation 1907/2006/EC.

Authorisations: Not applicable

15.1.2. National regulations

DE: WGK: 2
DE: German storage class (LGK): LGK 3 - Flammable liquid materials (Flashpoint < 55 °C)
DE: Technische Regeln für Gefahrstoffe (TRGS): applicable
FR: Installations classées: 117X;143X
NL: ABM: 6 - Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment. (A)
NL: NeR (Nederlandse emissie Richtlijn): Organic substances in vapour or gaseous form

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:
Aquatic Chronic 2: Hazardous to the aquatic environment - chronic hazard category 2
Asp. Tox. 1: Aspiration hazard, Category 1
Flam. Liqu. 3: Flammable liquids, Category 3
Skin Irrit. 2: Skin corrosion/irritation, Category 2
STOT SE 3: Specific target organ toxicity — Single exposure, Category 3, Narcosis
H226: Flammable liquid and vapour.
H304: May be fatal if swallowed and enters airways.
H315: Causes skin irritation.
H336: May cause drowsiness or dizziness.
H411: Toxic to aquatic life with long lasting effects.
R10: Flammable.
R38: Irritating to skin.
R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R65: Harmful: may cause lung damage if swallowed.
N: Dangerous for the environment
Xi: Irritant
Xn: Harmful

Key literature references and sources for data: LOLL

Abbreviations and acronyms:
DNEL = Derived No Effect Level
DMEL = Derived minimal effect level
PNEC = Predicted No Effect Concentration
OEL = Occupational Exposure Limits - Short Term Exposure Limits (STELs)
TWA = time weighted average
LC50 = Median lethal concentration

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