International SDS Documents

*FOR INFORMATION REFERENCE ONLY.* A product specific SDS is included with each shipment. Use the SDS sent with each sample for information related to the product supplied per program cycle.
SAFETY DATA SHEET

Laboratory Gas Oil Sample

Product name: Gas Oil, Heavy vacuum
Date of issue: 19. 12. 2012
Revision date: 22. 04. 2017 (version 1.2)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

Chemical name: Gas Oil, Heavy vacuum
Registration No.: None
Index No.: None

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

Identified uses: Laboratory test sample
Uses advised against: Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

1.3 Details of the supplier of the safety data sheet

Supplier

Clark Laboratories
1801 Route 51 South
Jefferson Hills, PA 15025
412-387-1001

1.4 Emergency telephone number

Transportation Emergency Response
Chemtrec - 24 hour emergency response: (800) 424-9300
International Collect: +1 703 741 5970
SDS Assistance Email: sds@clarktesting.com

SECTION 2: HAZARDS IDENTIFICATION

2.1 Classification of the substance/mixture

According to the regulation (EC) No. 1272/2008 (CLP), the product is classified as hazardous.
Carcinogenicity, Cat 1B: Carc. 1B, H350
Reproductive toxicity, Cat 2: Repr. 2, H361
Specific target organ toxicity, Cat 2: STOT RE 2, H372
Acute toxicity: Acute Tox. 4, H332
Aquatic Toxicity, Cat. 1: Aquatic Acute 1, H400
Toxic to aquatic life with long lasting effects, Cat. 1: Aquatic Chronic 1, H410
2.2 Label elements according to the European Regulation (EC) No 1272/2008

**Pictogram:**

![Pictogram](image)

**Signal Word:** Danger

**Hazards:**
Combustible liquid. Harmful if inhaled. Causes skin irritation. May cause cancer. May cause damage to organs (liver, thymus, bone marrow) through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

**Precautions:**
Dispose of contents/container in accordance with all local, regional, national and international regulations. Protect from sunlight. Do not induce vomiting. Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a poison center/doctor. Wear protective gloves, clothing, eye protection and face protection. Use only outdoor or in a well ventilated area. Do not breathe vapors/spray. Keep cool. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.1 Substances**
The product is not the substances.

**3.2 Mixtures**

Product chemical substances with dangerous properties

<table>
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<td>Benzene</td>
<td>200-753-7</td>
<td>71-43-2</td>
<td>&lt;1</td>
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</tbody>
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**SECTION 4: FIRST AID MEASURES**

**4.1 First aid measures – description**
If the first aid treatment is to be administered, release tight clothing and keep the exposed person warm and at rest. If conscious, place the exposed person to the stabilised position and get prompt medical attention. If the exposed person is unconscious and not breathing, provide for free respiratory passages and artificial respiration. In case of cardiac arrest, apply cardiac massage and call medical assistance immediately. If unconscious but breathing, place the exposed person to the stabilised position and call medical assistance immediately.

The first aid instructions are structured according to separate exposure ways:
**Inhalation**: Move the exposed person to fresh air or to a well-ventilated place, keep the exposed person warm and at rest, do not leave the person unattended. Get prompt medical assistance.

**Skin contact**: Remove the contaminated clothes and footwear immediately. Keep washing the affected body parts with soap and warm water and treat them with a suitable cream. If any irritation, swelling or reddening occurs, get prompt medical assistance. Wash the contaminated clothes before re-use. Footwear and other leather clothing parts must be replaced with new.

**Contact with eyes**: Check for contact lenses and remove them, if present. Rinse the eyes thoroughly with ample quantity of clean ( lukewarm, if possible) water for at least 15 minutes. If eye irritation persists, seek medical assistance.

**Ingestion**: Remove any artificial denture, if present. Rinse the mouth with water, but never induce vomiting - vomit should not get into the lungs. Get prompt medical attention. If nevertheless spontaneous vomiting occurs, place the exposed person to the stabilised position with his/her legs slightly elevated. Seek immediate medical assistance.

4.2 Most important acute and delayed symptoms and effects The product has negative effects on the central nervous system.

4.3 Instructions related to the immediate medical assistance and special treatment

**Inhalation**: The product has negative effects on the central nervous system. At higher concentrations, the product vapours have narcotic effects that may cause convulsions or even death. Check for breathing and pulse rate of the affected person.

**Ingestion and inhalation**: If swallowed or inhaled, the product may cause serious damage of lungs. Do not induce vomiting. Contraindications: induced vomiting and gastric irrigation. Administration of medicinal charcoal has no effect. The affected person must be monitored at least for the period of 48 to 72 hours. Monitoring for pulmonary oedema symptoms starts six hours after the ingestion/inhalation and it continues at least for the period of 48 to 72 hours.

---

**SECTION 5: FIRE FIGHTING MEASURES**

5.1 Extinguishing means

**Suitable extinguishing means**: Heavy, medium and light air-mechanical foam, type B or C fire-extinguishing powders.

**Unsuitable extinguishing means**: Water jet (for cooling only).

5.2 Special danger connected with the substance/mixture

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide. Explosive mixtures with air are formed.

5.3 Special means of protection for firemen

Fire-fighting teams exposed to smoke or vapours must wear respiratory and eye protection. In confined spaces, the teams must use a self-contained breathing apparatus.

---

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

6.1 Exposure controls/personal protection and emergency procedures

Prevent any contamination of clothing/footwear with the product; prevent any contact with skin and eyes. Use suitable protective clothing; if contaminated, change the clothing immediately. Remove any potential source of ignition. Strictly no smoking or naked flames. If possible, larger spills may be covered with foam in order to control the creation of vapors and aerosols. Provide for good ventilation of the affected areas. All persons not taking part in rescue operations must be kept away to a sufficient distance.

6.2 Environmental precautions

Act as quick as possible, do not allow to enter drains, underground water or watercourses and soil by enclosing the affected area (damming, closing of gulleys). Notify the relevant authorities.

6.3 Methods of material containing and cleaning

If possible, contain the spillage and pump off or remove the product mechanically or draw it off the water surface. Let absorb any residual or smaller quantities to a suitable sorbent (Vapex, Chezacarb, saw dust, sand) and place it into labelled containers for further disposal in accordance with the relevant waste disposal legislation.

6.4 References to other sections

Apart from the instruction set out in this Section, other important information is shown in section 8 - EXPOSURE CONTROLS AND SECTION 13 – DISPOSAL CONSIDERATIONS.

---

**SECTION 7: HANDLING AND STORAGE**

7.1 Safe handling measures
The premises must be equipped according to the requirements of ČSN 75 3415 (Czech Standard). All fire-safety measures must be followed while handling the product. Strictly no smoking or naked flames. In addition, it is necessary to avoid any inhalation of vapours or aerosol, contamination of skin and/or eyes. If handling of heavy containers is necessary, use suitable handling equipment and avoid of any possibility of slipping. Do not eat, drink and smoke at work. Store the product away from foodstuffs, drinks and fodder.

7.2 Conditions of safe storage of substances and mixtures, incl. incompatible substances and mixtures

The provisions of ČSN 65 0201 are applicable for the product storage. Store the product only in tightly-closed vessels/containers purported for gasoline storage and placed at a well-ventilated place, away from any ignition sources and possible penetration of water/mechanical impurities. Protect against static discharge. All power and lighting installations must be constructed according to the relevant regulations. Strictly no smoking.

7.3 Specified end-use

Technology oil

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

8.1 Control parameters

**Workplace occupational exposure limit** (under Regulation No. 361/2007 Coll., as amended):

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL mineral oils (aerosol)</td>
<td>5 mg/m³</td>
</tr>
<tr>
<td>NPK-P Mineral oils (aerosol)</td>
<td>10 mg/m³</td>
</tr>
<tr>
<td>Inhalation: DNELs workers 8 h</td>
<td>0.12 mg/m³</td>
</tr>
<tr>
<td>Dermal: 0.065 mg/kg</td>
<td></td>
</tr>
<tr>
<td>DNEL public 24 h: dermal: 0.015 mg/kg</td>
<td></td>
</tr>
<tr>
<td>Orally: 0.74 mg/kg</td>
<td></td>
</tr>
<tr>
<td>PNEC (oral mammal): 9.33 mg/kg diet</td>
<td></td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Observe general safety and hygienic measures; do not eat, drink and smoke at work. After washing the skin with warm water and soap, treat it preventively with a regeneration cream.

**Eye/face protection:** Use protective goggles or safety eyewear (face shield).

**Skin protection:** Use protective gloves resistant against oil products and tested according to EN 374; best of all made of nitrile or neoprene rubber.

**Respiratory system protection:** Not necessary, if the vapour concentration in air is less than the concentration limits. If the opposite is the case or aerosols are created, use emergency escape mask with A, AX (brown) filters or any other mask types suitable of protecting against organic gases and vapours.

**Thermal hazard:** None

**Environmental exposure controls:** See the survey of risk control measures for the proper environmental exposure control in the exposure scenario enclosed herewith.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>very viscous liquid at 20 °C</td>
</tr>
<tr>
<td>Colour</td>
<td>dark brown</td>
</tr>
<tr>
<td>Odour</td>
<td>slightly mineral oily</td>
</tr>
</tbody>
</table>

| Odour threshold value     | not determined          |
| pH                        | no determination necessary |
| Pour point                | under +24 °C            |
| Initial boiling point and boiling range: | 250 to 640 °C |
| Flash point PM:           | >142 °F (61 °C)         |
| Vaporisation rate:        | not determined          |
| Flammability: IV. Class   |
| Upper/lower explosion or flammability limits: | under usual conditions it does not produce explosive vapours |
| Vapour pressure:          | < 1 Pa at 20 °C         |
| Vapour density:           | not determined          |
| Relative density:         | min. 970 kg/m³ at 15 °C |
| Solubility:               | insoluble in water      |
Separation factor: n-octanol/water: not determined
Self-ignition temperature: 350 °C
Decomposition temperature: not determined
Viscosity at 100 °C: min. 22 mm²/s
Explosive properties: not explosive; vapours mixed with air may form explosive mixtures
Oxidation properties: not oxidising

9.2 Other data
Combustion point: 240 °C

SECTION 10: STABILITY & REACTIVITY

10.1 Reactivity: No reactivity danger exists.
10.2 Chemical stability: Stable under recommended storage and handling conditions.
10.3 Possibility of dangerous reactions: No dangerous reactions are possible.
10.4 Conditions to be avoided: Creation of concentrations within the explosion limits, presence of ignition sources and contact with a naked flame.
10.5 Incompatible materials: Strong oxidisers.
10.6 Hazardous decomposition products: Under normal conditions: none; if burning under deficiency of air, carbon monoxide may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects of the substance/mixture
Acute toxicity: oral toxicity (rat) LD₅₀ > 5000 mg/kg (OECD 401)
dermal toxicity (rabbit) LD₅₀ > 3000 mg/kg (OECD 402)
inhalation toxicity (rabbit) LC₅₀ > 5000 mg/m³ (OECD 403) Chronic toxicity: not determined
Causticity/irritation to skin: OECD 404 test results proved the skin irritation.
Serious damage/irritation to eyes: OECD 405 test results proved no eye irritation.
Sensitisation of respiratory organs or by skin contact: the respiratory organ sensitisation data are missing, but no such sensitisation is expected. As regards the sensitisation by skin contact, OECD 406 tests were made and no sensitisation proved.
Germ cell mutagenicity: data is missing
Carcinogenicity: Carcinogenic activity induced by repeated dermal irritation can be avoided by minimizing contact with the skin.
Reproduction toxicity: data is missing. Specific target organ toxicity – single exposure: not determined Specific target organ toxicity – repeated exposure: not determined Inhalation hazards: If swallowed, it may cause serious lung damage

SECTION 12: ECOLOGICAL INFORMATION

Based on acute toxicity of invertebrates and algae, the product is classified as toxic to the environment with H400 and H410.

12.1 Toxicity
Acute toxicity for aquatic environment: fish - LL₅₀ (96 hrs) > 1000 mg/l, NOAEL > 1000 mg/l algae - EL₅₀ (72 hrs) 18,8 mg/l, NOAEL 0,1 mg/l invertebrates EL₅₀ (48 hrs) 35,9 mg/l, NOAEL 1 mg/l
Chronic toxicity for aquatic environment: invertebrates NOELR (21 days) EL₅₀ > 1000 mg/l (WAF), NOEL > 1000 mg/l, fish (28 days) NOEL 20,01 mg/l (PETROTOX)
Toxicity for soil microorganisms and for soil macroorganisms: EL₅₀ (40 h) > 1000 mg/l, NOEL > 1000 mg/l

12.2 Persistence and degradability: Not expected - the substance is not soluble in water.
12.3 Bioaccumulation capacity: Not expected - the substance is biodegradable.
12.4 Mobility in soil: Not expected - the substance is biodegradable.
12.5 PBT and vPvB assessment results: Not expected because of the composition and low solubility in
water.

12.6 Other adverse effects: The formation of product layers on water surfaces prevents the access of oxygen.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods

Substance disposal procedures: Waste, impaired product or unused/surplus product must be handed over to the person authorised for waste disposal according to the provisions of Act No. 185/2001 Coll., on Waste, as amended later, for the purposes of further use or disposal (according to the manufacturer’s recommendations).

Waste Code: N 13 03 07, in sorbent: N 15 02 02

Contaminated packaging disposal procedures: The containers with product residua must be placed on the place specified by the municipal authorities or handed over to the person authorised for waste disposal.


SECTION 14: TRANSPORT INFORMATION

Environmentally hazardous substances may be shipped as non restricted when meeting the descriptions of UN3082 as they are not subject to the IMO-IMDG or IATA/ICAO Codes when transported in packaging that does not exceed 5L or 5kg net and the packaging used meets defined standards (Special Provision A197)

14.1 UN Number: 3082

14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Dangerous goods class: 9

14.4 Packing group: III

14.5 Environmental hazard: Yes

14.6 Special safety considerations for users: Transport category: 3 Limited quantity: 5

LPetroleum liquids under the Act on the waters, as amended, considered dangerous because of the requirements of the quality of surface and groundwater when transporting large volumes necessary to follow the advice of Standard 75 3418.

14.7 Mass transport according to Annex II of MARPOL 73/78 and IBC Regulation: not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Regulations concerning safety, health and environmental protection and/or specific legal regulations concerning the substance/mixture

I Act on Clean Air Protection, as amended later, incl. connected regulations and rules.

The product does not represent a volatile organic substance pursuant to Act on Clean Air Protection, as amended and relevant regulations of the Ministry of Environment.

I ČSN 65 0201 Flammable Liquids – manufacturing, storage and handling premises

According to ČSN 65 0201, the product is classified in the IV Flammability Class.

I ČSN 33 0371 Inexplosive electrical installation – Explosive mixtures – Classification and methods of testing

According to ČSN 33 077, the product is classified in the T3 Thermal Class and IIA Explosive Class.

I Government Regulation No. 361/2007 Coll., by which the conditions of occupational health and safety are stipulated, as amended later.

I ČSN 75 3415 Protection of water against oil products. Premises for oil product handling and storage.

I Act No. 350/2011 Coll., on chemical substances and chemical mixtures, and on amendments of some acts.

I Regulation (EC) No. 1272/2008 on classification, labelling and packaging of substances and mixtures (CLP)

15.2 Chemical safety assessment
The chemical safety assessment has been made.

SECTION 16: OTHER INFORMATION

16.1 List of H-phrases and P-phrases according to Regulation (EC) No. 1272/2008

Standard safety phrases: H-phrases
H332 Harmful if inhaled
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
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
H412 Harmful to aquatic life with long lasting effects
EUH066 Repeated exposure may cause skin dryness or cracking.

Safe handling instructions: P-phrases
P201 Obtain special instructions before use
P202 Do not handles until all safety precautions have been read and understood. P260 Do not breathe vapours and spray
P273 Avoid release to the environment
P280 Wear protective gloves and protective clothing
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/container as hazardous waste

16.2 Information on changes

☐ Change 0.1 is the art. 14.
☐ Change (version 1.0) – Classification CLP.
☐ Version 1.1 – change art. 2.1, 2.2, 3.2, 8.1, 16.1.

The data contained in this safety data sheet are based on our current knowledge and experience and they are related to the specified product only. The user is responsible for the product correct handling under the current legislation.

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet Adequate training and instruction should be given by you to your employees and affected personnel. Appropriate warnings and safe handling procedures should be provided by you to handlers and users. Additionally, the user should review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with the applicable federal, state, provincial or local hazard communication requirements. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the fitness for use of the material, or the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, vendor neither assumes nor retains any responsibility for any damage or injury resulting from abnormal use, from any failure to adhere to appropriate practices, or from any hazards inherent in the nature of the material. Moreover, unless an employee or a customer accesses or receives a SDS directly from the company, there is no assurance that a document obtained from alternate sources is the most currently available SDS. The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Completed by Clark PTP Staff

NO ANNEX
Domestic SDS Documents

*FOR INFORMATION REFERENCE ONLY.* A product specific SDS is included with each shipment. Use the SDS sent with each sample for information related to the product supplied per program cycle.
SAFETY DATA SHEET

Laboratory Gas Oil Sample

Product name: Gas Oil, Heavy vaccum
Date of issue: 19. 12. 2012
Revision date: 22. 04. 2017 (version 1.2)

SECTION 1: IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

1.1 Product Identifier

Chemical name: Gas Oil, Heavy

Registration No.: None

Index No.: None

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

Identified uses: Laboratory test sample

Uses advised against: Other uses are not recommended unless an assessment is completed, prior to commencement of that use, which demonstrates that the use will be controlled.

1.3 Details of the supplier of the safety data sheet

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Aquatic Toxicity, Cat. 1: Aquatic Acute 1, H400
Toxic to aquatic life with long lasting effects, Cat. 1: Aquatic Chronic 1, H410
2.2 Label elements according to the European Regulation (EC) No 1272/2008

Pictogram:

![Pictogram Image]

**Signal Word:** Danger

**Hazards:**
Combustible liquid. Harmful if inhaled. Causes skin irritation. May cause cancer. May cause damage to organs (liver, thymus, bone marrow) through prolonged or repeated exposure. May be fatal if swallowed and enters airways. Very toxic to aquatic life with long lasting effects.

**Precautions:**
Dispose of contents/container in accordance with all local, regional, national and international regulations. Protect from sunlight. Do not induce vomiting. Get medical advice/attention. IF INHALED: Remove person to fresh air and keep comfortable for breathing. IF SWALLOWED: Immediately call a poison center/doctor. Wear protective gloves/eye protection and face protection. Use only outdoor or in a well ventilated area. Do not breathe vapors/spray. Keep cool. Do not handle until all safety precautions have been read and understood. Obtain special instructions before use.

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### 3.1 Substances
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The first aid instructions are structured according to separate exposure ways:
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**Skin contact:** Remove the contaminated clothes and footwear immediately. Keep washing the affected body parts with soap and warm water and treat them with a suitable cream. If any irritation, swelling or reddening occurs, get prompt medical assistance. Wash the contaminated clothes before re-use. Footwear and other leather clothing parts must be replaced with new.

**Contact with eyes:** Check for contact lenses and remove them, if present. Rinse the eyes thoroughly with ample quantity of clean ( lukewarm, if possible) water for at least 15 minutes. If eye irritation persists, seek medical assistance.

**Ingestion:** Remove any artificial denture, if present. Rinse the mouth with water, but never induce vomiting - vomit should not get into the lungs. Get prompt medical attention. If nevertheless spontaneous vomiting occurs, place the exposed person to the stabilised position with his/her legs slightly elevated. Seek immediate medical assistance.

**SECTION 5: FIRE FIGHTING MEASURES**

**5.1 Extinguishing means**

**Suitable extinguishing means:** Heavy, medium and light air-mechanical foam, type B or C fire-extinguishing powders.

**Unsuitable extinguishing means:** Water jet (for cooling only).

**5.2 Special danger connected with the substance/mixture**

Combustion products and hazardous gases: smoke, carbon monoxide, carbon dioxide. Explosive mixtures with air are formed.

**5.3 Special means of protection for firemen**

Fire-fighting teams exposed to smoke or vapours must wear respiratory and eye protection. In confined spaces, the teams must use a self-contained breathing apparatus.

**SECTION 6: ACCIDENTAL RELEASE MEASURES**

**6.1 Exposure controls/personal protection and emergency procedures**

Prevent any contamination of clothing/footwear with the product; prevent any contact with skin and eyes. Use suitable protective clothing; if contaminated, change the clothing immediately. Remove any potential source of ignition. Strictly no smoking or naked flames. If possible, larger spills may be covered with foam in order to control the creation of vapors and aerosols. Provide for good ventilation of the affected areas. All persons not taking part in rescue operations must be kept away to a sufficient distance.

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Act as quick as possible, do not allow to enter drains, underground water or watercourses and soil by enclosing the affected area (damming, closing of gulleys). Notify the relevant authorities.

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If possible, contain the spillage and pump off or remove the product mechanically or draw it off the water surface. Let absorb any residual or smaller quantities to a suitable sorbent (Vapex, Chezacarb, saw dust, sand) and place it into labelled containers for further disposal in accordance with the relevant waste disposal legislation.

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7.2 Conditions of safe storage of substances and mixtures, incl. incompatible substances and mixtures

The provisions of ČSN 65 0201 are applicable for the product storage. Store the product only in tightly-closed vessels/containers purported for gasoline storage and placed at a well-ventilated place, away from any ignition sources and possible penetration of water/mechanical impurities. Protect against static discharge. All power and lighting installations must be constructed according to the relevant regulations. Strictly no smoking.

7.3 Specified end-use

Technology oil

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTIVE EQUIPMENT

8.1 Control parameters

**Workplace occupational exposure limit** (under Regulation No. 361/2007 Coll., as amended):

<table>
<thead>
<tr>
<th>Parameter</th>
<th>Limit</th>
</tr>
</thead>
<tbody>
<tr>
<td>PEL</td>
<td>mineral oils (aerosol): 5 mg/m³</td>
</tr>
<tr>
<td></td>
<td>NPK-P mineral oils (aerosol): 10 mg/m³</td>
</tr>
<tr>
<td>Inhalation: DNELs workers 8 h</td>
<td>Inhalation: 0.12 mg/m³</td>
</tr>
<tr>
<td></td>
<td>Dermal: 0.065 mg/kg</td>
</tr>
<tr>
<td>DNEL public 24 h</td>
<td>Dermal: 0.015 mg/kg</td>
</tr>
<tr>
<td></td>
<td>Orally: 0.74 mg/kg</td>
</tr>
</tbody>
</table>

PNEC (oral mammal): 9.33 mg/kg diet

8.2 Exposure controls

Observe general safety and hygienic measures; do not eat, drink and smoke at work. After washing the skin with warm water and soap, treat it preventively with a regeneration cream.

**Eye/face protection**: Use protective goggles or safety eyewear (face shield).

**Skin protection**: Use protective gloves resistant against oil products and tested according to EN 374; best of all made of nitrile or neoprene rubber.

**Respiratory system protection**: Not necessary, if the vapour concentration in air is less than the concentration limits. If the opposite is the case or aerosols are created, use emergency escape mask with A, AX (brown) filters or any other mask types suitable of protecting against organic gases and vapours.

**Thermal hazard**: None

**Environmental exposure controls**: See the survey of risk control measures for the proper environmental exposure control in the exposure scenario enclosed herewith.

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>very viscous liquid at 20 °C</td>
</tr>
<tr>
<td>Colour</td>
<td>dark brown</td>
</tr>
<tr>
<td>Odour</td>
<td>slightly mineral oily</td>
</tr>
<tr>
<td>Odour threshold value</td>
<td>not determined</td>
</tr>
<tr>
<td>pH</td>
<td>no determination necessary</td>
</tr>
<tr>
<td>Pour point</td>
<td>under +24 °C</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>250 to 640 °C</td>
</tr>
<tr>
<td>Flash point PM</td>
<td>&gt;142 °F (61 °C)</td>
</tr>
<tr>
<td>Vaporisation rate</td>
<td>not determined</td>
</tr>
<tr>
<td>Flammability</td>
<td>IV. Class</td>
</tr>
</tbody>
</table>

Upper/lower explosion or flammability limits: under usual conditions it does not produce explosive vapours.

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapour pressure</td>
<td>&lt; 1 Pa at 20 °C</td>
</tr>
<tr>
<td>Vapour density</td>
<td>not determined</td>
</tr>
<tr>
<td>Relative density</td>
<td>min. 970 kg/m³ at 15 °C</td>
</tr>
<tr>
<td>Solubility</td>
<td>insoluble in water</td>
</tr>
</tbody>
</table>
Separation factor: n-octanol/water: not determined
Self-ignition temperature: 350 °C
Decomposition temperature: not determined
Viscosity at 100 °C: min. 22 mm²/s
Explosive properties: not explosive; vapours mixed with air may form explosive mixtures
Oxidation properties: not oxidising

9.2 Other data
Combustion point: 240 °C

SECTION 10: STABILITY & REACTIVITY

10.1 Reactivity: No reactivity danger exists.
10.2 Chemical stability: Stable under recommended storage and handling conditions.
10.3 Possibility of dangerous reactions: No dangerous reactions are possible.
10.4 Conditions to be avoided: Creation of concentrations within the explosion limits, presence of ignition sources and contact with a naked flame.
10.5 Incompatible materials: Strong oxidisers.
10.6 Hazardous decomposition products: Under normal conditions: none; if burning under deficiency of air, carbon monoxide may be formed.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects of the substance/mixture
- Acute toxicity: oral toxicity (rat) LD₅₀ > 5000 mg/kg (OECD 401)
  dermal toxicity (rabbit) LD₅₀ > 3000 mg/kg (OECD 402)
  inhalation toxicity (rabbit) LC₅₀ > 5000 mg/m³ (OECD 403) Chronic toxicity: not determined
- Causticity/irritation to skin: OECD 404 test results proved the skin irritation.
- Serious damage/irritation to eyes: OECD 405 test results proved no eye irritation.
- Sensitisation of respiratory organs or by skin contact: the respiratory organ sensitisation data are missing, but no such sensitisation is expected. As regards the sensitisation by skin contact, OECD 406 tests were made and no sensitisation proved.
- Germ cell mutagenicity: data is missing
- Carcinogenicity: Carcinogenic activity induced by repeated dermal irritation can be avoided by minimizing contact with the skin.
- Reproduction toxicity: data is missing. Specific target organ toxicity – single exposure: not determined Specific target organ toxicity – repeated exposure: not determined Inhalation hazards: If swallowed, it may cause serious lung damage

SECTION 12: ECOLOGICAL INFORMATION

Based on acute toxicity of invertebrates and algae, the product is classified as toxic to the environment with H400 and H410.

12.1 Toxicity
- Acute toxicity for aquatic environment: fish - LL₅₀ (96 hrs) > 1000 mg/l, NOAEL > 1000 mg/l algae - EL₅₀ (72 hrs) 18.8 mg/l, NOAEL 0.1 mg/l invertebrates EL₅₀ (48 hrs) 35.9 mg/l, NOAEL 1 mg/l
- Chronic toxicity for aquatic environment: invertebrates NOELR (21 days) EL₅₀ > 1000 mg/l (WAF), NOEL > 1000 mg/l, fish (28 days) NOEL 20.01 mg/l (PETROTOX)
- Toxicity for soil microorganisms and for soil macroorganisms: EL₅₀ (40 h) > 1000 mg/l, NOEL > 1000 mg/l

12.2 Persistence and degradability: Not expected - the substance is not soluble in water.
12.3 Bioaccumulation capacity: Not expected - the substance is biodegradable.
12.4 Mobility in soil: Not expected - the substance is biodegradable.
12.5 PBT and vPvB assessment results: Not expected because of the composition and low solubility in
12.6 Other adverse effects: The formation of product layers on water surfaces prevents the access of oxygen.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1 Waste disposal methods

**Substance disposal procedures**: Waste, impaired product or unused/surplus product must be handed over to the person authorised for waste disposal according to the provisions of Act No. 185/2001 Coll., on Waste, as amended later, for the purposes of further use or disposal (according to the manufacturer’s recommendations).

**Waste Code**: N 13 03 07, in sorbent: N 15 02 02

**Contaminated packaging disposal procedures**: The containers with product residua must be placed on the place specified by the municipal authorities or handed over to the person authorised for waste disposal.

**Waste legislation**: Act No. 185/2001 Coll., on Waste, as amended later and connected implementation rules and regulations.

SECTION 14: TRANSPORT INFORMATION

Environmentally hazardous substances may be shipped as non restricted when meeting the descriptions of UN3082 as they are not subject to the IMO-IMDG or IATA/ICAO Codes when transported in packaging that does not exceed 5L or 5kg net and the packaging used meets defined standards (Special Provision A197)

14.1 UN Number: 3082

14.2 UN proper shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

14.3 Dangerous goods class: 9

14.4 Packing group: III

14.5 Environmental hazard: Yes

14.6 Special safety considerations for users: Transport category: 3 Limited quantity: 5

LPetroleum liquids under the Act on the waters, as amended, considered dangerous because of the requirements of the quality of surface and groundwater when transporting large volumes necessary to follow the advice of Standard 75 3418.

14.7 Mass transport according to Annex II of MARPOL 73/78 and IBC Regulation: not applicable

SECTION 15: REGULATORY INFORMATION

15.1 Regulations concerning safety, health and environmental protection and/or specific legal regulations concerning the substance/mixture

I Act on Clean Air Protection, as amended later, incl. connected regulations and rules.

The product does not represent a volatile organic substance pursuant to Act on Clean Air Protection, as amended and relevant regulations of the Ministry of Environment.

I ČSN 65 0201 Flammable Liquids – manufacturing, storage and handling premises

According to ČSN 65 0201, the product is classified in the IV Flammability Class.

I ČSN 33 0371 Inexplosive electrical installation – Explosive mixtures – Classification and methods of testing

According to ČSN 33 077, the product is classified in the T3 Thermal Class and IIA Explosive Class.

I Government Regulation No. 361/2007 Coll., by which the conditions of occupational health and safety are stipulated, as amended later.

I ČSN 75 3415 Protection of water against oil products. Premises for oil product handling and storage.

I Act No. 350/2011 Coll., on chemical substances and chemical mixtures, and on amendments of some acts.

15.2 Chemical safety assessment
The chemical safety assessment has been made.

SECTION 16: OTHER INFORMATION

16.1 List of H-phrases and P-phrases according to Regulation (EC) No. 1272/2008

Standard safety phrases: H-phrases
H332 Harmful if inhaled
H350 May cause cancer.
H361 Suspected of damaging fertility or the unborn child.
H372 Causes damage to organs through prolonged or repeated exposure.
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
H412 Harmful to aquatic life with long lasting effects
EUH066 Repeated exposure may cause skin dryness or cracking.

Safe handling instructions: P-phrases
P201 Obtain special instructions before use
P202 Do not handles until all safety precautions have been read and understood. P260 Do not breathe vapours and spray
P273 Avoid release to the environment
P280 Wear protective gloves and protective clothing
P308+P313 IF exposed or concerned: Get medical advice/attention.
P501 Dispose of contents/container as hazardous waste

16.2 Information on changes
□ Change 0.1 is the art. 14.
□ Change (version 1.0) – Classification CLP.
□ Version 1.1 – change art. 2.1, 2.2, 3.2, 8.1, 16.1.

The data contained in this safety data sheet are based on our current knowledge and experience and they are related to the specified product only. The user is responsible for the product correct handling under the current legislation.

NOTICE: The information presented herein is based on data considered to be accurate as of the date of preparation of this Safety Data Sheet. Adequate training and instruction should be given by you to your employees and affected personnel. Appropriate warnings and safe handling procedures should be provided by you to handlers and users. Additionally, the user should review this information, satisfy itself as to its suitability and completeness, and pass on the information to its employees or customers in accordance with the applicable federal, state, provincial or local hazard communication requirements. This SDS may not be used as a commercial specification sheet of manufacturer or seller, and no warranty or representation, expressed or implied, is made as to the fitness for use of the material, or the accuracy or comprehensiveness of the foregoing data and safety information, nor is any authorization given or implied to practice any patented invention without a license. In addition, vendor neither assumes nor retains any responsibility for any damage or injury resulting from abnormal use, from any failure to adhere to appropriate practices, or from any hazards inherent in the nature of the material. Moreover, unless an employee or a customer accesses or receives a SDS directly from the company, there is no assurance that a document obtained from alternate sources is the most currently available SDS. The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.

Completed by Clark PTP Staff

NO ANNEX