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

1.1 Product identifier
   - Trade name: Shell Tellus S4 VX 32
   - Product code: 001D7769

1.2 Relevant identified uses of the substance or mixture and uses advised against
   - Use of the Substance/Mixture: Hydraulic oil
   - Recommended restrictions on use: This product must not be used in applications other than those listed in Section 1 without first seeking the advice of the supplier.

1.3 Details of the supplier of the safety data sheet
   - Company: Shell & Turcas Petrol A.Ş.
     Salih Tozan Sk.No:18bblk Esentepe-Sisli
     34394 Istanbul
   - Telephone: +9021244441502
   - Telefax: +902123760600
   - Emergency telephone number: 0212 376 00 00

1.4 Emergency telephone number

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture
   - Classification T.R. SAE No 27092
     - Harmful: R20: Harmful by inhalation.
     - Irritant: R38: Irritating to skin.
     - Dangerous for the environment: R51/53: Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
2.2 Label elements

Labelling according to EC Directives:

Hazard symbols:
- Harmful
- Dangerous for the environment

R-phrase(s):
- R20 Harmful by inhalation.
- R38 Irritating to skin.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

S-phrase(s):
- S23 Do not breathe gas/fumes/vapour/spray.
- S24 Avoid contact with skin.
- S37 Wear suitable gloves.
- S61 Avoid release to the environment. Refer to special instructions/ Safety data sheets.
- S62 If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

2.3 Other hazards

Used oil may contain harmful impurities.
High-pressure injection under the skin may cause serious damage including local necrosis.
Not classified as flammable but will burn.

SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature: Highly refined mineral oils and additives.
The highly refined mineral oil contains <3% (w/w) DMSO-extract, according to IP346.

Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS-No.</th>
<th>T.R. SAE No</th>
<th>T.R. SEA No</th>
<th>Concentration (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Gas oils (petroleum), hydrodesulfurized</td>
<td>64742-79-6 265-182-8</td>
<td>Xn-N; R20-R38-R51/53-R65</td>
<td>Asp. Tox.1; H304 Acute Tox.4; H332 Skin Irrit.2; H315 Aquatic Chronic2; H411</td>
<td>70 - 80</td>
</tr>
</tbody>
</table>

For explanation of abbreviations see section 16.
SECTION 4: First aid measures

4.1 Description of first aid measures

Protection of first-aiders: When administering first aid, ensure that you are wearing the appropriate personal protective equipment according to the incident, injury and surroundings.

If inhaled: Remove to fresh air. Do not attempt to rescue the victim unless proper respiratory protection is worn. If the victim has difficulty breathing or tightness of the chest, is dizzy, vomiting, or unresponsive, give 100% oxygen with rescue breathing or CPR as required and transport to the nearest medical facility.

In case of skin contact: Remove contaminated clothing. Immediately flush skin with large amounts of water for at least 15 minutes, and follow by washing with soap and water if available. If redness, swelling, pain and/or blisters occur, transport to the nearest medical facility for additional treatment.

When using high pressure equipment, injection of product under the skin can occur. If high pressure injuries occur, the casualty should be sent immediately to a hospital. Do not wait for symptoms to develop. Obtain medical attention even in the absence of apparent wounds.

In case of eye contact: Flush eye with copious quantities of water. If persistent irritation occurs, obtain medical attention.

If swallowed: If swallowed, do not induce vomiting; transport to nearest medical facility for additional treatment. If vomiting occurs spontaneously, keep head below hips to prevent aspiration. If any of the following delayed signs and symptoms appear within the next 6 hours, transport to the nearest medical facility: fever greater than 101° F (38.3°C), shortness of breath, chest congestion or continued coughing or wheezing.

4.2 Most important symptoms and effects, both acute and delayed

Symptoms: If material enters lungs, signs and symptoms may include coughing, choking, wheezing, difficulty in breathing, chest congestion, shortness of breath, and/or fever. The onset of respiratory symptoms may be delayed for several hours after exposure. Skin irritation signs and symptoms may include a burning sensation, redness, swelling, and/or blisters. Defatting dermatitis signs and symptoms may include a burning sensation and/or a dried/cracked appearance. Ingestion may result in nausea, vomiting and/or diarrhoea. Local necrosis is evidenced by delayed onset of pain and tissue damage a few hours following injection.
4.3 Indication of any immediate medical attention and special treatment needed

Treatment: Notes to doctor/physician:
- Treat symptomatically.
- Call a doctor or poison control center for guidance.

High pressure injection injuries require prompt surgical intervention and possibly steroid therapy, to minimise tissue damage and loss of function.
Because entry wounds are small and do not reflect the seriousness of the underlying damage, surgical exploration to determine the extent of involvement may be necessary. Local anaesthetics or hot soaks should be avoided because they can contribute to swelling, vasospasm and ischaemia. Prompt surgical decompression, debridement and evacuation of foreign material should be performed under general anaesthetics, and wide exploration is essential.

SECTION 5: Firefighting measures

5.1 Extinguishing media

Suitable extinguishing media: Foam, water spray or fog. Dry chemical powder, carbon dioxide, sand or earth may be used for small fires only.

Unsuitable extinguishing media: Do not use water in a jet.

5.2 Special hazards arising from the substance or mixture

Specific hazards during firefighting: Hazardous combustion products may include:
- A complex mixture of airborne solid and liquid particulates and gases (smoke).
- Carbon monoxide may be evolved if incomplete combustion occurs.
- Unidentified organic and inorganic compounds.

5.3 Advice for firefighters

Special protective equipment for firefighters: Proper protective equipment including chemical resistant gloves are to be worn; chemical resistant suit is indicated if large contact with spilled product is expected. Self-Contained Breathing Apparatus must be worn when approaching a fire in a confined space. Select fire fighter's clothing approved to relevant Standards (e.g. Europe: EN469).

Specific extinguishing methods: Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin and eyes.

6.2 Environmental precautions

Environmental precautions: Use appropriate containment to avoid environmental contamination. Prevent from spreading or entering drains, ditches or rivers by using sand, earth, or other appropriate barriers.

Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

Methods for cleaning up: Slippery when spilt. Avoid accidents, clean up immediately. Prevent from spreading by making a barrier with sand, earth or other containment material. Reclaim liquid directly or in an absorbent. Soak up residue with an absorbent such as clay, sand or other suitable material and dispose of properly.

6.4 Reference to other sections

For guidance on selection of personal protective equipment see Chapter 8 of this Safety Data Sheet. For guidance on disposal of spilled material see Chapter 13 of this Safety Data Sheet.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

Technical measures: Use local exhaust ventilation if there is risk of inhalation of vapours, mists or aerosols. Use the information in this data sheet as input to a risk assessment of local circumstances to help determine appropriate controls for safe handling, storage and disposal of this material.

Advice on safe handling: Avoid prolonged or repeated contact with skin. Avoid inhaling vapour and/or mists. When handling product in drums, safety footwear should be worn and proper handling equipment should be used. Properly dispose of any contaminated rags or cleaning materials in order to prevent fires.

7.2 Conditions for safe storage, including any incompatibilities

Other data: Keep container tightly closed and in a cool, well-ventilated place. Use properly labeled and closable containers. Must be stored in a diked (bunded) area.

Store at ambient temperature.
Refer to section 15 for any additional specific legislation covering the packaging and storage of this product.

Packaging material:
- Suitable material: For containers or container linings, use mild steel or high density polyethylene.
- Unsuitable material: PVC.

7.3 Specific end use(s)
- Specific use(s): Not applicable.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS-No.</th>
<th>Value type (Form of exposure)</th>
<th>Control parameters</th>
<th>Basis</th>
</tr>
</thead>
<tbody>
<tr>
<td>Oil mist, mineral</td>
<td></td>
<td>TWA</td>
<td>5 mg/m³</td>
<td>US, ACGIH Threshold Limit Values</td>
</tr>
</tbody>
</table>

Biological occupational exposure limits
No biological limit allocated.

8.2 Exposure controls

Engineering measures
The level of protection and types of controls necessary will vary depending upon potential exposure conditions. Select controls based on a risk assessment of local circumstances. Appropriate measures include:
- Adequate ventilation to control airborne concentrations.
- Where material is heated, sprayed or mist formed, there is greater potential for airborne concentrations to be generated.

General Information:
- Define procedures for safe handling and maintenance of controls.
- Educate and train workers in the hazards and control measures relevant to normal activities associated with this product.
- Ensure appropriate selection, testing and maintenance of equipment used to control exposure, e.g., personal protective equipment, local exhaust ventilation.
- Drain down system prior to equipment break-in or maintenance.
- Retain drain downs in sealed storage pending disposal or subsequent recycle.
- Always observe good personal hygiene measures, such as washing hands after handling the material and before eating, drinking, and/or smoking. Routinely wash work clothing and protective equipment to remove contaminants. Discard contaminated clothing and footwear that cannot be cleaned. Practice good housekeeping.

Personal protective equipment
- Eye protection: If material is handled such that it could be splashed into eyes,
protective eyewear is recommended.

Hand protection

Remarks: Where hand contact with the product may occur the use of gloves approved to relevant standards (e.g. Europe: EN374, US: F739) made from the following materials may provide suitable chemical protection. PVC, neoprene or nitrile rubber gloves. Suitability and durability of a glove is dependent on usage, e.g. frequency and duration of contact, chemical resistance of glove material, dexterity. Always seek advice from glove suppliers. Contaminated gloves should be replaced. Personal hygiene is a key element of effective hand care. Gloves must only be worn on clean hands. After using gloves, hands should be washed and dried thoroughly. Application of a non-perfumed moisturizer is recommended.

For continuous contact we recommend gloves with breakthrough time of more than 240 minutes with preference for > 480 minutes where suitable gloves can be identified. For short-term/splash protection we recommend the same, but recognize that suitable gloves offering this level of protection may not be available and in this case a lower breakthrough time may be acceptable so long as appropriate maintenance and replacement regimes are followed. Glove thickness is not a good predictor of glove resistance to a chemical as it is dependent on the exact composition of the glove material. Glove thickness should be typically greater than 0.35 mm depending on the glove make and model.

Skin and body protection: Wear chemical resistant gloves/gauntlets and boots. Where risk of splashing, also wear an apron.

Respiratory protection: No respiratory protection is ordinarily required under normal conditions of use. In accordance with good industrial hygiene practices, precautions should be taken to avoid breathing of material. If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, select respiratory protection equipment suitable for the specific conditions of use and meeting relevant legislation. Check with respiratory protective equipment suppliers. Where air-filtering respirators are suitable, select an appropriate combination of mask and filter. Select a filter suitable for the combination of organic gases and vapours [Type A/Type P boiling point >65°C (149°F)].

Protective measures: Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

Environmental exposure controls

General advice: Take appropriate measures to fulfill the requirements of relevant environmental protection legislation. Avoid contamination of the environment by following advice given in Chapter 6.
necessary, prevent undissolved material from being discharged to waste water. Waste water should be treated in a municipal or industrial waste water treatment plant before discharge to surface water. Local guidelines on emission limits for volatile substances must be observed for the discharge of exhaust air containing vapour.

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Appearance: Liquid at room temperature.

Colour: colourless

Odour: Slight hydrocarbon

Odour Threshold: Data not available

pH: Not applicable

Pour point: -60 °C
    Method: ISO 3016

Initial boiling point and boiling range: > 280 °C
    estimated value(s)

Flash point: >= 100 °C
    Method: ISO 2592

Evaporation rate: Data not available

Flammability (solid, gas): Data not available

Upper explosion limit: Typical 10 % (V)

Lower explosion limit: Typical 1 % (V)

Vapour pressure: < 0,5 Pa (20 °C)
    estimated value(s)

Relative vapour density: > 1
    estimated value(s)

Relative density: 0,866 (15 °C)

Density: 866 kg/m3 (15,0 °C)
    Method: ISO 12185
### Shell Tellus S4 VX 32

<table>
<thead>
<tr>
<th>Version</th>
<th>Revision Date</th>
<th>MSDS Number</th>
<th>Initial release date</th>
</tr>
</thead>
<tbody>
<tr>
<td>2.4</td>
<td>21.05.2015</td>
<td>800001007581</td>
<td>17.01.2011</td>
</tr>
</tbody>
</table>

- **Water solubility**: negligible
- **Solubility in other solvents**: Data not available
- **Partition coefficient: n-octanol/water**: Pow: > 6 (based on information on similar products)
- **Auto-ignition temperature**: > 320 °C
- **Viscosity, dynamic**: Data not available
- **Viscosity, kinematic**: 33.8 mm²/s (40.0 °C)  
  Method: ASTM D445  
  9.93 mm²/s (100 °C)  
  Method: ASTM D445

#### 9.2 Other information
- **Conductivity**: This material is not expected to be a static accumulator.
- **Decomposition temperature**: Data not available

### SECTION 10: Stability and reactivity

#### 10.1 Reactivity

#### 10.2 Chemical stability

Stable.

#### 10.3 Possibility of hazardous reactions

Hazardous reactions: Reacts with strong oxidising agents.

#### 10.4 Conditions to avoid

Conditions to avoid: Extremes of temperature and direct sunlight.

#### 10.5 Incompatible materials

Materials to avoid: Strong oxidising agents.

#### 10.6 Hazardous decomposition products

Hazardous decomposition products are not expected to form during normal storage.

### 11.1 Information on toxicological effects
Information on likely routes of exposure: Skin and eye contact are the primary routes of exposure although exposure may occur following accidental ingestion.

Acute toxicity

**Product:**

- Acute oral toxicity: LD50 (rat): > 5,000 mg/kg
  Remarks: Expected to be of low toxicity.

- Acute inhalation toxicity: LC50 (Rat): > 1 - < 5 mg/l
  Exposure time: 4 h
  Remarks: Harmful if inhaled.

- Acute dermal toxicity: LD50 (Rabbit): > 2,000 - < 5,000 mg/kg
  Remarks: May be harmful in contact with skin.

Skin corrosion/irritation

**Product:**

Remarks: Causes skin irritation.

Serious eye damage/eye irritation

**Product:**

Remarks: Expected to be slightly irritating.

Respiratory or skin sensitisation

**Product:**

Remarks: Not expected to be a skin sensitiser.

Germ cell mutagenicity

**Product:**

Genotoxicity in vivo: Remarks: Not considered a mutagenic hazard.

Carcinogenicity

**Product:**

Remarks: Not expected to be carcinogenic.

Remarks: Product contains mineral oils of types shown to be non-carcinogenic in animal skin-painting studies. Highly refined mineral oils are not classified as carcinogenic by the International Agency for Research on Cancer (IARC).

<table>
<thead>
<tr>
<th>Material</th>
<th>GHS/CLP Carcinogenicity Classification</th>
</tr>
</thead>
<tbody>
<tr>
<td>Highly refined mineral oil</td>
<td>No carcinogenicity classification.</td>
</tr>
</tbody>
</table>
Reproductive toxicity

**Product:**

Effects on fertility: Remarks: Not expected to impair fertility.
Not expected to be a developmental toxicant.

STOT - single exposure

**Product:**

Remarks: Not expected to be a hazard.

STOT - repeated exposure

**Product:**

Remarks: Not expected to be a hazard.

Aspiration toxicity

**Product:**

Not considered an aspiration hazard.

Further information

**Product:**

Remarks: Used oils may contain harmful impurities that have accumulated during use. The concentration of such impurities will depend on use and they may present risks to health and the environment on disposal. 
ALL used oil should be handled with caution and skin contact avoided as far as possible.

Remarks: High pressure injection of product into the skin may lead to local necrosis if the product is not surgically removed.

Remarks: Slightly irritating to respiratory system.

SECTION 12: Ecological information

12.1 Toxicity

**Product:**

Toxicity to fish (Acute toxicity): Remarks: Expected to be toxic:
LL/EL/IL50 > 1 <= 10 mg/l

Toxicity to daphnia and other aquatic invertebrates (Acute toxicity): Remarks: Expected to be toxic:
LL/EL/IL50 > 1 <= 10 mg/l

Toxicity to algae (Acute toxicity): Remarks: Expected to be toxic:
LL/EL/IL50 > 1 <= 10 mg/l
Toxicity to fish (Chronic toxicity): Remarks: Data not available

Toxicity to daphnia and other aquatic invertebrates (Chronic toxicity): Remarks: Data not available

Toxicity to bacteria (Acute toxicity): Remarks: Data not available

12.2 Persistence and degradability

Product: Biodegradability
Remarks: Expected to be not readily biodegradable. Major constituents are expected to be inherently biodegradable, but contains components that may persist in the environment.

12.3 Bioaccumulative potential

Product: Bioaccumulation
Remarks: Contains constituents with the potential to bioaccumulate.

12.4 Mobility in soil

Product: Mobility
Remarks: Liquid under most environmental conditions. If it enters soil, it will adsorb to soil particles and will not be mobile.

Remarks: Floats on water.

12.5 Results of PBT and vPvB assessment

Product: Assessment
This mixture does not contain any REACH registered substances that are assessed to be a PBT or a vPvB.

12.6 Other adverse effects

Product: Additional ecological information
Remarks: Product is a mixture of non-volatile components, which are not expected to be released to air in any significant quantities. Not expected to have ozone depletion potential, photochemical ozone creation potential or global warming potential.

Remarks: Poorly soluble mixture. May cause physical fouling of aquatic organisms.

Remarks: Mineral oil is not expected to cause any chronic
SECTION 13: Disposal considerations

13.1 Waste treatment methods

SECTION 14: Transport information

14.1 UN number

<table>
<thead>
<tr>
<th>ADR</th>
<th>UN 3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>RID</td>
<td>UN 3082</td>
</tr>
<tr>
<td>IMDG</td>
<td>UN 3082</td>
</tr>
<tr>
<td>IATA</td>
<td>UN 3082</td>
</tr>
</tbody>
</table>

14.2 UN proper shipping name

<table>
<thead>
<tr>
<th>ADR</th>
<th>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oils, (petroleum), hydrodesulphurised)</th>
</tr>
</thead>
<tbody>
<tr>
<td>RID</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oils, (petroleum), hydrodesulphurised)</td>
</tr>
<tr>
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</tr>
<tr>
<td>IATA</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Gas oils, (petroleum), hydrodesulphurised)</td>
</tr>
</tbody>
</table>

14.3 Transport hazard class(es)

<table>
<thead>
<tr>
<th>ADR</th>
<th>9</th>
</tr>
</thead>
<tbody>
<tr>
<td>RID</td>
<td>9</td>
</tr>
<tr>
<td>IMDG</td>
<td>9</td>
</tr>
<tr>
<td>IATA</td>
<td>9MI</td>
</tr>
</tbody>
</table>

14.4 Packing group

<table>
<thead>
<tr>
<th>ADR</th>
<th>III</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>M6</td>
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<tr>
<td></td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>9</td>
</tr>
<tr>
<td>RID</td>
<td>III</td>
</tr>
<tr>
<td></td>
<td>M6</td>
</tr>
</tbody>
</table>

effects to aquatic organisms at concentrations less than 1 mg/l.
**SAFETY DATA SHEET**

Prepared according to the regulation on Safety Data Sheets regarding Hazardous substances and mixtures (R.G. 13/12/2014-29204).

**Shell Tellus S4 VX 32**

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</tr>
</tbody>
</table>

- Hazard Identification Number: 90
- Labels: 9

**IMDG**
- Packing group: III
- Labels: 9
- EmS Code: 

**IATA**
- Packing instruction (cargo aircraft): 914
- Packing instruction (passenger aircraft): 914
- Packing instruction (LQ): Y914
- Packing group: III
- Labels: Miscellaneous

14.5 Environmental hazards

**ADR**
- Environmentally hazardous: yes

**RID**
- Environmentally hazardous: yes

**IMDG**
- Marine pollutant: yes

14.6 Special precautions for user
- Not applicable

14.7 Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
- Pollution category: Not applicable
- Ship type: Not applicable
- Product name: Not applicable
- Special precautions: Not applicable

**Additional Information**
- MARPOL Annex 1 rules apply for bulk shipments by sea.

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture
- Other regulations: Regulations on the health and safety precautions for chemicals in the workplace. Regulations on the fire protection of buildings. Regulations on the prevention of industrial accidents and the reduction of their effects.

**The components of this product are reported in the following inventories:**

- **EINECS**: All components listed or polymer exempt.
- **TSCA**: All components listed.
SECTION 16: Other information

**Full text of R-Phrases**

R20 : Harmful by inhalation.
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.

**Full text of H-Statements**

H304 : May be fatal if swallowed and enters airways.
H315 : Causes skin irritation.
H332 : Harmful if inhaled.
H411 : Toxic to aquatic life with long lasting effects.

**Full text of other abbreviations**

Acute Tox. : Acute toxicity
Aquatic Chronic : Chronic aquatic toxicity
Asp. Tox. : Aspiration hazard
Skin Irrit. : Skin irritation

**SDS Author**

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Deniz Mah. P.O Cad.
41900 Derince-Kocaeli

Certified Qualification date : 07 May 2015
Certificate number : GBF-2015-188

**Further information**

Other information : A vertical bar (|) in the left margin indicates an amendment from the previous version.

Revision changes: Revised according to regulation on Safety Data Sheets (SDSs) regarding hazardous substances and mixtures (R.G. 13/12/2014-29204)

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification. The information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process, unless specified in the text.

TR / EN