**SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING**

**Product identifier**

Product name: SHELL TELLUS S3 M 32  
Cat. No. 16080850  
Container size: 1 L

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

Application: Hydraulic oil.  
Uses advised against: No specific uses advised against are identified. (*)

**Details of the supplier of the safety data sheet**

Supplier: Struers ApS  
Pederstrupvej 84  
DK-2750 Ballerup  
Tel:+45 44 600 800  
Responsible for material safety data sheet authoring: DHI

Any questions to the contents of this material safety data sheet should be sent to: struers@struers.dk

**Emergency telephone number**

National Capital Poison Center: 1-800-222-1222  
Infotrac: 1-800-535-5053  
Struers US: 1-440-871-0071

**SECTION 2: HAZARDS IDENTIFICATION**

**Classification of the substance or mixture**

OSHA 2012: The product is not classified.

**Label elements**

The substance/mixture does not meet the criteria for classification and labeling.

**Other hazards**

Prolonged or repeated contact with skin may cause redness, itching, irritation, eczema, skin cracking and oil acne. May cause minor irritation on eye contact. The harmful effects may increase in used oil. Oil spills are generally hazardous to the environment.

PBT/vPvB: No information available.

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

**Mixtures**

The product contains: Highly refined mineral oil and additives.
SAFETY DATA SHEET

SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation: Move into fresh air and keep at rest. In case of persistent throat irritation or coughing or after inhalation of oil mist: Seek medical attention and bring along these instructions.

Skin contact: Remove contaminated clothing immediately and wash skin with soap and water. In case of rashes, wounds or other skin disorders: Seek medical attention and bring along these instructions.

Eye contact: Immediately flush with plenty of water for at least 15 minutes. Remove any contact lenses and open eyelids widely. If irritation persists: Seek medical attention and bring along these instructions.

Ingestion: Immediately rinse mouth and drink plenty of water. Keep person under observation. If person becomes uncomfortable seek hospital and bring these instructions. Do not induce vomiting.

Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

Extinguishing media

Extinguishing media: Use fire-extinguishing media appropriate for surrounding materials.

Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Special hazards arising from the substance or mixture

Specific hazards: When heated and in case of fire, toxic vapors/gases may be formed.

Advice for firefighters

Protective equipment for firefighters: Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.
SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Avoid inhalation of oil mist and contact with skin and eyes. In case of spills, beware of slippery floors and surfaces. For personal protection, see section 8.

For emergency responders: No specific recommendations. For personal protection, see section 8.

Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Absorb spillage with oil-absorbing material.

Reference to other sections

References: For personal protection, see section 8.
For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

Precautions for safe handling

Safe handling advice: Avoid inhalation of oil mist and contact with skin and eyes. Always remove oil with soap and water or skin cleaning agent, never use organic solvents. Do not use oil-contaminated clothing or shoes, and do not put rags moistened with oil into pockets. Observe good chemical hygiene practices.

Technical measures: Work practice should minimize contact. Use work methods which minimize oil mist production.

Technical precautions: When working with heated oil, mechanical ventilation may be required.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in tightly closed original container in a dry, cool and well-ventilated place.

Specific end use(s)

Specific use(s): No information available.
SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

(*)

Occupational exposure limits:

<table>
<thead>
<tr>
<th>CAS-No.</th>
<th>Chemical name</th>
<th>As</th>
<th>Exposure limits</th>
<th>Type</th>
<th>Notes</th>
<th>References</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Oil mineral, mist</td>
<td>-</td>
<td>5 mg/m3 TWA</td>
<td>-</td>
<td>OSHA</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mineral oil, excluding metal working fluids (pure, highly and severely refined), inhalable particulate matter</td>
<td>-</td>
<td>5 mg/m3 TWA</td>
<td>A4</td>
<td>ACGIH</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Mineral oil, excluding metal working fluids (poorly and mildly refined)</td>
<td>-</td>
<td>-</td>
<td>A2</td>
<td>ACGIH</td>
<td></td>
</tr>
</tbody>
</table>


Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation of vapors and oil mist. Provide access to washing facilities incl. soap, skin cleanser and fatty cream.

Personal protection: Personal protective equipment should be chosen according to the ANSI standards and in discussion with the supplier of the personal protective equipment.

Respiratory equipment: In case of inadequate ventilation or risk of inhalation of oil mist, suitable respiratory equipment with combination filter (type A2/P3) can be used.

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves are recommended. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Breakthrough time: >480 min Thickness: >0.35 mm (*)

Eye protection: Risk of contact: Wear goggles/face shield.

Skin protection: No special precautions.

Hygiene measures: Wash hands after contact. Wash contaminated clothing before reuse.

Environmental Exposure Controls: Not available.
## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

### Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Form</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Color</strong></td>
<td>Amber</td>
</tr>
<tr>
<td><strong>Odor</strong></td>
<td>Hydrocarbon</td>
</tr>
<tr>
<td><strong>Odor threshold</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not applicable.</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>&gt;536°F</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>419°F</td>
</tr>
<tr>
<td><strong>Evaporation rate</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Flammability (solid, gas)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Explosion limits</strong></td>
<td>1 - 10% (V)</td>
</tr>
<tr>
<td><strong>Vapor pressure</strong></td>
<td>&lt;0.5 Pa (68°F)</td>
</tr>
<tr>
<td><strong>Vapor density</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Relative density</strong></td>
<td>0.855 (59°F)</td>
</tr>
<tr>
<td><strong>Solubility</strong></td>
<td>Insoluble in water</td>
</tr>
<tr>
<td><strong>Partition coefficient (n-octanol/water)</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature (</strong>°F**)**</td>
<td>&gt;608°F</td>
</tr>
<tr>
<td><strong>Decomposition temperature (</strong>°F**)**</td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Kinematic viscosity: 32 mm²/s (104 °F)</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not available.</td>
</tr>
<tr>
<td><strong>Oxidizing properties</strong></td>
<td>Not available.</td>
</tr>
</tbody>
</table>

### Other information

**Other data:** Volatile Organic Compound (VOC): 0 g/l
SECTION 10: STABILITY AND REACTIVITY

Reactivity
Reactivity: None known.

Chemical stability
Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions
Hazardous Reactions: None known.

Conditions to avoid
Conditions/materials to avoid: Extremes of temperatures. Direct sunlight. Heat, sparks, flames.

Incompatible materials
Incompatible materials: Strong oxidizing substances.

Hazardous decomposition products
Hazardous decomposition products: None known.
SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

The harmful effects may increase in used oil.

Acute Toxicity (Oral): Based on available data, the classification criteria are not met.
Acute Toxicity (Dermal): Based on available data, the classification criteria are not met.
Acute Toxicity (Inhalation): Based on available data, the classification criteria are not met.
Skin Corrosion/Irritation: Based on available data, the classification criteria are not met.
Serious eye damage/irritation: Based on available data, the classification criteria are not met.
Respiratory or skin sensitization: Based on available data, the classification criteria are not met.
Germ cell mutagenicity: Based on available data, the classification criteria are not met.
Carcinogenicity: Based on available data, the classification criteria are not met.
National Toxicology Program (NTP): No.
IARC Cancer Review: Group 3 for Highly-refined oils.
OSHA: No.

Reproductive Toxicity: Based on available data, the classification criteria are not met.
STOT - Single exposure: Based on available data, the classification criteria are not met.
STOT - Repeated exposure: Based on available data, the classification criteria are not met.
Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Inhalation of oil mist or vapors formed during heating of the product will irritate the respiratory system and provoke coughing.

Skin contact: Degreasing. Prolonged or repeated contact with skin may cause redness, itching, irritation and eczema/chapping. Prolonged or repeated contact with used oil may cause serious skin diseases, such as dermatitis.

Eye contact: Direct contact may irritate.

Ingestion: May irritate and cause malaise.

Additional information: Handling of used oils:
Protect health - avoid prolonged and repeated skin contact. Wash with soap and water. Protect the environment - do not pollute drains, water courses or the soil. Contact your local authority for any used oil disposal instructions.
### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity**

Ecotoxicity: Oil spills are generally hazardous to the environment.

**Persistence and degradability**

Degradability: This product is expected to be heavily biodegradable.

**Bioaccumulative potential**

Bioaccumulative potential: No data available on bioaccumulation.

**Mobility in soil**

Mobility: No data available.

**Results of PBT and vPvB assessment**

PBT/vPvB: No information available.

**Other adverse effects**

Other adverse effects: None known.

### SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Waste from residues: Dispose of waste and residues in accordance with local authority requirements.

### SECTION 14: TRANSPORT INFORMATION

The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, DOT).

**UN number**

UN-No: -

**UN proper shipping name**

Proper Shipping Name: -

**Transport hazard class(es)**

Class: -

**Packing group**

PG: -

**Environmental hazards**

Marine pollutant: -

Environmentally Hazardous substance: -

**Special precautions for user**

Special precautions: None known.

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

Transport in bulk: Not known.
SECTION 15: REGULATORY INFORMATION

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

Special provisions: State and local regulation may apply.

TSCA: Listed.

NFPA Rating: Health: 1  Fire: 1  Reactivity: 0  Other:-

SARA (311/312) Hazard categories: No.

National regulation:
The following lists have been checked:
NIOSH Pocket Guide to Chemical Hazards.
Threshold Limit Values (2019), ACGIH, by the American Conference on Governmental Industrial Hygienists.
SECTION 16: OTHER INFORMATION

The user must be instructed in the proper work procedure and be familiar with the contents of these instructions.

The following sections contain revisions or new statements: 1, 8.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

Allan Vorup

Abbreviations and acronyms used in the safety data sheet:

PBT = Persistent, Bioaccumulative and Toxic.
vPvB = very Persistent and very Bioaccumulative.

Additional information:
Classification according to HCS 2012:
Calculation method.

Wording of H-statements:
H304 May be fatal if swallowed and enters airways.

The information on this data sheet represents our current data and is reliable provided that the product is used under the prescribed conditions and in accordance with the application specified on the packaging and/or in the technical guidance literature. Any other use of the product which involves using the product in combination with any other product or any other process is the responsibility of the user.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.