Safety Data Sheet

First compilation date: 10-Jan-2017

Product name   SCHULTZ® S765
Recommended use Heat transfer fluids
Manufacturer    Jiangsu Zhongneng Chemical Technology Co., Ltd
Address         Chemical Industry Park, Duluiogang, Jiangsu
Telephone       +86 518 83866555
E-mail address  Sales@dyovacn.com
Emergency telephone  +86 518 83866558

Hazard classification

Health hazards

| Eye damage/irritation       | Category 2 |
| Acute aquatic toxicity      | Category 1 |
| Chronic aquatic toxicity    | Category 1 |

Hazard and precautionary statements

Hazard pictogram

Signal word  Warning

Hazard statements

| H319     | Causes serious eye irritation. |
| H410     | Very toxic to aquatic life with long lasting effects. |
Precautionary statements

Prevention

- **P264**: Wash skin thoroughly after handling.
- **P273**: Avoid release to the environment.
- **P280**: Wear eye protection/ face protection.
- **P305+P351+P338**: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
- **P337+P313**: If eye irritation persists: Get medical advice/ attention.

Response

- **P391**: Collect spillage.

Disposal

- **P501**: Dispose of contents/container to an appropriate treatment and disposal facility in accordance with local/regional/national/international regulations.

### 3. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS No.</th>
<th>Weight (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>1,2,3,4-(fenylethyl)-naftaleen</td>
<td>63674-30-6</td>
<td>58-62</td>
</tr>
<tr>
<td>Diphenyl oxide</td>
<td>101-84-8</td>
<td>38-42</td>
</tr>
</tbody>
</table>

### 4. First-Aid Measures

**General advice**: In case of doubt or symptoms persist, seek medical advice. In case of unconscious, get medical attention immediately.

**Inhalation**: Move to fresh air and keep comfortable for breathing. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Call a physician.

**Eye contact**: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention immediately if symptoms occur.

**Skin contact**: Rinse immediately contaminated clothing and skin with plenty of water before removing clothes. Wash contaminated clothing before reuse. If exposed or concerned get medical advice/attention.

**Ingestion**: If swallowed, seek medical attention. Do not induce vomiting unless directed to do so by medical personnel.

**Most important symptoms and effects, both acute and delayed**: A description of any additional main symptoms and effects Section 11: Toxicological information.

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indication of any immediate medical attention and special treatment needed

Notes to physician

Maintain adequate ventilation and oxygenation of the patient. If burn is present, treat as any thermal burn, after decontamination. Because rapid absorption may occur through the lungs if aspirated and cause systemic effects, the decision of whether to induce vomiting or not should be made by a physician. If lavage is performed, suggest endotracheal and/or esophageal control. Danger from lung aspiration must be weighed against toxicity when considering emptying the stomach. No specific antidote. Treatment of exposure should be directed at the control of symptoms and the clinical condition of the patient. Repeated excessive exposure may aggravate preexisting liver disease.

Extinguishing media

| Suitable extinguishing media | Water spray, Dry powder, Carbon dioxide (CO2). Foam, Alcohol resistant foams (ATC type) are preferred. General purpose synthetic foams (including AFFF) or protein foams may function, but will be less effective. |
| Unsuitable extinguishing media | Do not use direct water stream. May spread fire. |

Special hazards arising from the substance or mixture

During a fire, smoke may contain the original material in addition to combustion products of varying composition which may be toxic and/or irritating. Combustion products may include and are not limited to: Hydrocarbons. Carbon monoxide. Carbon dioxide.

Advice for firefighters

Fire fighting procedures

In any fire, wear self-contained breathing apparatus (SCBA), and full protective gear. Evacuate all persons from the vicinity. Promptly isolate the scene. Prevent fire extinguishing water from contaminating surface water and groundwater systems. Collect contaminated fire extinguishing water separately. This must not be discharged into drains. Fire residues and extinguishing water contaminated must comply with local regulations for disposal. In the premise there is no danger of the container is removed from the scene in. Water spray to cool containers / tanks.

Special protective equipment for firefighters

In any fire, wear self-contained breathing apparatus pressure-demand, and full protective gear.

Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Isolate area. Keep unnecessary and unprotected personnel from entering the area. Ventilate area of leak or spill. Avoid inhalation of vapors and spray mists. Do not touch or walk through spilled material. Avoid contact skin, eyes and clothing. Wear appropriate personal protective equipment. See Section
Environmental precautions

Stop leak if safe to do so. Clean up spill immediately. Prevent from entering into soil, drains or water courses.

Methods and materials for containment and cleaning up

Small spills: as far as possible the leaking fluid collection in airtight containers. Absorb with sand, diatomaceous earth or other inert materials.
Large spills: constructing dike or have dug a pit for a large number of the leakage, and transferred to the properly labeled containers, recycling or shipped to the disposal of waste places. Do not put it into the surrounding environment. Ban into the sewer.

7. Handling and Storage

Precautions for safe handling

Avoid contact with eyes, skin and clothing. Avoid breathing vapors or mists.
Do not eat, drink or smoke when using this product. Wear personal protective equipment. Wash thoroughly after handling. Use in well ventilated areas. Keep container closed.

Conditions for safe storage

Store in tightly closed container. Keep containers stored in a dry, cool and well-ventilated place. Keep away from direct sunlight. Store away from incompatible materials. Containers that have been opened must be carefully resealed and kept upright to prevent leakage. Additional storage and handling information on this product may be obtained by calling your sales or customer service contact.

8. Exposure Controls / Personal Protection

Control parameters

Exposure limits

<table>
<thead>
<tr>
<th>COMPONENT</th>
<th>ACGIH TLV</th>
<th>OSHA PEL</th>
</tr>
</thead>
<tbody>
<tr>
<td>Diphenyl oxide</td>
<td>TWA: 1 ppm</td>
<td>PEL: 1 ppm</td>
</tr>
<tr>
<td></td>
<td>STEL: 2 ppm</td>
<td>7 mg/m³</td>
</tr>
</tbody>
</table>

Exposure controls

Engineering controls

Maintain air concentrations below occupational exposure standards. Apply technical measures to comply with the occupational exposure limits. If there are no applicable exposure limit requirements or guidelines, general ventilation should be sufficient for most operations. Local exhaust ventilation may be necessary for some operations.

Individual protection measures

Eye/face protection

Use chemical goggles.
Skin protection

Hand protection

Wear protective gloves. If necessary, wear protective clothing and rubber boots to prevent skin and body contact with liquid Material. After contamination with product change the gloves immediately and dispose of them according to relevant national and local regulations.

Other protection

When prolonged or frequently repeated contact could occur, use protective clothing chemically resistant to this material. Selection of specific items such as faceshield, boots, apron, or full-body suit will depend on the task.

Respiratory protection

Respiratory protection should be worn when there is a potential to exceed the exposure limit requirements or guidelines. Positive-pressure supplied air respirators may be required for high airborne contaminant concentrations. Respiratory protection must be provided in accordance with current local regulations.

9. Physical and Chemical Properties

Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Appearance</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Color</td>
<td>Colorless to brown</td>
</tr>
<tr>
<td>Odor</td>
<td>Aromatic</td>
</tr>
<tr>
<td>Odor threshold</td>
<td>No data available</td>
</tr>
<tr>
<td>pH</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Melting point/freezing point</td>
<td>Not applicable to liquids</td>
</tr>
<tr>
<td>Boiling point/boiling range</td>
<td>290°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>135°C (Closed cup)</td>
</tr>
<tr>
<td>Evaporation rate (Butyl acetate=1)</td>
<td>&lt;0.1</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Upper flammability limit</td>
<td>0.5 % (V)</td>
</tr>
<tr>
<td>Lower flammability limit</td>
<td>6.3 % (V)</td>
</tr>
<tr>
<td>Vapor pressure</td>
<td>≤1mmHg (20°C)</td>
</tr>
<tr>
<td>Relative vapor density (air = 1)</td>
<td>≥1</td>
</tr>
<tr>
<td>Relative Density (water = 1)</td>
<td>1.03 -1.20(25°C/25°C)</td>
</tr>
<tr>
<td>Solubility(ies)</td>
<td></td>
</tr>
<tr>
<td>Solubility in water</td>
<td>≤12ppm (25°C)</td>
</tr>
<tr>
<td>Solubility (other)</td>
<td>No data available</td>
</tr>
<tr>
<td>Partition coefficient: n-octanol/water</td>
<td>No data available</td>
</tr>
<tr>
<td>Autoignition temperature</td>
<td>432°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>No data available</td>
</tr>
<tr>
<td>Dynamic viscosity</td>
<td>No data available</td>
</tr>
<tr>
<td>Kinematic viscosity</td>
<td>6.5 mm²/s (40°C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>No data available</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>No data available</td>
</tr>
</tbody>
</table>
### Stability and Reactivity

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reactivity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Chemical stability</td>
<td>Material is stable under normal conditions.</td>
</tr>
<tr>
<td>Possibility of hazardous reactions</td>
<td>Polymerization will not occur.</td>
</tr>
<tr>
<td>Conditions to avoid</td>
<td>Heating in air. Heat, sparks, flames. Exposure to elevated temperatures can cause product to decompose.</td>
</tr>
<tr>
<td>Incompatible materials</td>
<td>Strong oxidizing agents.</td>
</tr>
<tr>
<td>Hazardous decomposition products</td>
<td>Decomposition products depend upon temperature, air supply and the presence of other materials. Decomposition products can include trace amounts of: Phenol</td>
</tr>
</tbody>
</table>

### Toxicological Information

#### Information on toxicological effects

<table>
<thead>
<tr>
<th>Toxicity</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute toxicity</td>
<td></td>
</tr>
<tr>
<td>Oral</td>
<td>LD50 (Rat): &gt;5000 mg/kg.</td>
</tr>
<tr>
<td>Dermal</td>
<td>LD50 (Rabbit): &gt;2000 mg/kg.</td>
</tr>
<tr>
<td>Inhalation</td>
<td>LC50 (Rat,4hr): No data available.</td>
</tr>
<tr>
<td>Repeated dose toxicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Skin corrosion/irritation</td>
<td>Brief contact may cause slight skin irritation with local redness. Prolonged contact may cause skin irritation with local redness. Repeated exposure may cause irritation, even a burn.</td>
</tr>
<tr>
<td>Serious eye damage/eye irritation</td>
<td>May cause moderate eye irritation. May cause slight corneal injury.</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Did not cause allergic skin reactions when tested in humans. Did not cause allergic skin reactions when tested in guinea pigs.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>No data available.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>No data available</td>
</tr>
<tr>
<td>Reproductive toxicity</td>
<td>In animal studies, did not interfere with reproduction.</td>
</tr>
</tbody>
</table>

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Specific target organ toxicity - single exposure | Evaluation of available data suggests that this material is not an STOT-SE toxicant.

Specific target organ toxicity - repeated exposure | Based on information for component(s); Repeated excessive exposure may cause irritation of the upper respiratory tract. Based on available data, repeated exposures are not anticipated to cause additional significant adverse effects.

Aspiration hazard | May be harmful if swallowed and enters airways.

Other effects | No data available.

12. Ecological information

Ecotoxicity

Acute hazards to the aquatic environment

Diphenyl oxide

Fish | LC50 (Oncorhynchus mykiss, 96 h): 4.2 mg/l.

Aquatic invertebrates | LC50 (Daphnia magna, 48 h): 1.7 mg/l.

Algae/aquatic plants | ErC50 (Pseudokirchneriella subcapitata, 72 h): 1.7 mg/l.

1,2,3,4-(fenylethyl)-naftaleen

Aquatic invertebrates | EC50 (Daphnia magna, 48 h): 0.107 mg/l.

Algae/aquatic plants | EbC50 (Pseudokirchneriella subcapitata, 96 h, Biomass): > 0.07 mg/l.

Chronic hazards to the aquatic environment

Fish | No data available.

Aquatic invertebrates | No data available.

Toxicity to aquatic plants | No data available.

Persistence and degradability

Diphenyl oxide

Biodegradability | Material is expected to be readily biodegradable.

Theoretical Oxygen Demand | 2.63 mg/mg.

Biological oxygen demand (BOD) | 5d, 64%; 10d, 76%; 20d, 76.

BOD/COD ratio | No data available.

1,2,3,4-(fenylethyl)-naftaleen

Biodegradability | Material is expected to biodegrade very slowly (in the environment). Fails to pass OECD/EEC tests for ready biodegradability. Material is inherently biodegradable (reaches > 20% biodegradation in OECD test(s) for inherent biodegradability). 10-day Window: Fail.

Biodegradation | 6%.

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### Exposure time

**Method**
28d.
OECD Test Guideline 301B or Equivalent.
10-day Window: Not applicable.

### Biodegradation

**Exposure time**
> 40 %.
28d.
OECD Test Guideline 302B or Equivalent.

### Bioaccumulative potential

**Bioconcentration factor (BCF)**
No data available.

**Partition coefficient n-octanol / water (log Kow)**
No data available.

### Mobility in soil

**Diphenyl oxide**
Potential for mobility in soil is low (Koc between 500 and 2000).

**1,2,3,4-(fenylethyl)-naftalee**
Expected to be relatively mobile in soil (Koc > 5000).

### Other adverse effects

No data available.

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### Disposal methods

Do not pour any sewers, ground, or pour any water. All disposal practices must be in compliance with state and local laws and regulations. Empty packaging should be taken to an approved waste handling site for recycling or disposal. See headings 15 for more information.

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### Transport Information

#### ADR/RID

<table>
<thead>
<tr>
<th>UN No.</th>
<th>UN 3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1-fenylethyl)naphthalene)</td>
</tr>
<tr>
<td>Hazard class</td>
<td>9</td>
</tr>
<tr>
<td>Packing group</td>
<td>III</td>
</tr>
<tr>
<td>Environmental hazards</td>
<td>Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1phenylethyl)naphthalene</td>
</tr>
<tr>
<td>ICAO/IATA</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>UN/ID No.</th>
<th>UN 3082</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proper shipping name</td>
<td>ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.</td>
</tr>
</tbody>
</table>
**Hazard class**  
(Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene)  
9  
**Packing group**  
III  
**Environmental hazards**  
Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene

**IMDG**  
UN No.  
3082  
**Proper shipping name**  
ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.  
(Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene)  
**Hazard class**  
9  
**Packing group**  
III  
**Environmental hazards**  
Diphenyl oxide, 1,2,3,4-Tetrahydro-5-(1-phenylethyl)naphthalene

### 15. Regulatory Information

**U.S. Toxic Substances Control Act (TSCA)**  
All components of this product are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30. This product contains a substance subject to a TSCA Section 5(a)(2) Significant New Use Rule (SNUR) and export notification under TSCA 12(b). The SNUR is described in 40 CFR 721.5225 and requires the following Hazard Communication information: This substance may be toxic to fish and toxic to aquatic organisms. Notice to users: Disposal restrictions apply, do not release to water.

**Canadian Domestic Substances List (DSL)**  
All substances contained in this product are listed on the Canadian Domestic Substances List (DSL) or are not required to be listed.

Listed in Regulation: ENVIRONMENTAL HAZARDS  
Number in Regulation: E1  
100 t  
200 t

### 16. Other Information

**Disclaimer**  
The SDS information applies only to the specified product, unless otherwise specified, in the case of a mixture of this product with other substances, which do not apply. The information provided is a guide for the safe operation and not as a guarantee of the quality manual. The SDS only those received professional training in the proper use of the product provides product safety information for. Users of this SDS, under special conditions of use must be made of the suitability of the SDS independent judgment. In special occasions, due to the use of this SDS caused injury, this SDS writers will not be held responsible.

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