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

Product name: OP-S NONDRY

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

Application: Polishing agent for materialographic specimen preparation.

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:** Category 2 Target organ toxicant, Repeated Exposure

**Label elements**

<table>
<thead>
<tr>
<th>Code</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>H373K</td>
<td>May cause damage to organs (kidneys) through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>P260</td>
<td>Do not breathe dust/fume/gas/mist/vapours/spray.</td>
</tr>
<tr>
<td>P314</td>
<td>Get medical advice/attention if you feel unwell.</td>
</tr>
<tr>
<td>P501</td>
<td>Dispose of contents/container in accordance with local regulations.</td>
</tr>
<tr>
<td>P101</td>
<td>If medical advice is needed, have product container or label at hand.</td>
</tr>
<tr>
<td>P102</td>
<td>Keep out of reach of children.</td>
</tr>
<tr>
<td>P103</td>
<td>Read label before use.</td>
</tr>
</tbody>
</table>

**Other hazards**

Contains a mixture of: 5-chloro-2-methyl-4-isothiazolin-3-one [EC no. 247-500-7] and 2-methyl-2H -isothiazol-3-one [EC no. 220-239-6] (3:1). May produce an allergic reaction.

**PBT/vPvB:** No information available.

### SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

**Mixtures**

The product contains: silica and water.
SECTION 4: FIRST AID MEASURES

Description of first aid measures

Inhalation: Move into fresh air and keep at rest.

Skin contact: Remove contaminated clothes and rinse skin thoroughly with water.

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 take to hospital along with 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/treatment: Treat symptomatically.
SECTION 5: FIREFIGHTING MEASURES

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

Unsuitable extinguishing media: No specific precautions.

Special hazards arising from the substance or mixture
Specific hazards: In case of fire, toxic 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
Protective equipment: Avoid contact with skin and eyes. For personal protection, see section 8. (*)
Emergency procedures: No specific recommendations. For personal protection, see section 8. (*)

Environmental precautions
Environmental precautions: Avoid discharge into water courses or onto the ground.

Methods and material for containment and cleaning up
Spill Cleanup Methods: Dam and absorb spillage with sand, sawdust or other absorbent.

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 contact with skin and eyes. Observe good chemical hygiene practices.
Technical measures: Work practice should minimize contact.
Technical precautions: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities
Technical measures for safe storage: No special precautions.
Storage conditions: Store in tightly closed original container. Store at room temperature.

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>107-21-1</td>
<td>Ethylene glycol, vapor fraction</td>
<td>-</td>
<td>25 ppm</td>
<td>TWA</td>
<td>A4</td>
<td>ACGIH</td>
</tr>
<tr>
<td>107-21-1</td>
<td>Ethylene glycol, aerosol</td>
<td>-</td>
<td>50 ppm</td>
<td>STEL</td>
<td>A4; 15min</td>
<td>ACGIH</td>
</tr>
</tbody>
</table>

Notes: A4: Not Classifiable as a Human Carcinogen.

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation.

Personal protection: Personal protection 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 and work of brief duration, use suitable respiratory equipment. Use respiratory equipment with combination filter, type A2/P2.

Hand protection: Risk of contact: Wear protective gloves. Nitrile gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable.

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

Skin protection: Wear apron or protective clothing in case of contact.

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

**Information on basic physical and chemical properties**

(*)

- **Form:** Liquid.
- **Odor:** Odorless.
- **Odor threshold:** Not available.
- **pH:** 9-10
- **Melting point:** 32°F
- **Boiling point:** 212°F
- **Flash point:** Not relevant.
- **Evaporation rate:** Not available.
- **Flammability (solid, gas):** Not available.
- **Explosion limits:** Not relevant.
- **Vapor pressure:** Not available.
- **Vapor density:** Not available.
- **Relative density:** 1-1.2
- **Solubility:** Miscible with water.
- **Partition coefficient (n-octanol/water):** Not available.
- **Auto-ignition temperature (°F):** Not available.
- **Decomposition temperature (°F):** Not available.
- **Viscosity:** Not available.
- **Explosive properties:** Not available.
- **Oxidizing properties:** Not available.

**Other information**

- **Other data:** Volatile Organic Compound (VOC): 250 g/l (calculated)
SECTION 10: STABILITY AND REACTIVITY

**Reactivity**

**Reactivity:** None under normal conditions.

**Chemical stability**

**Stability:** Stable under normal temperature conditions.

**Possibility of hazardous reactions**

**Hazardous Reactions:** None under normal conditions.

**Conditions to avoid**

**Conditions/materials to avoid:** Keep away from heat, sparks and open flame.

**Incompatible materials**

**Incompatible materials:** Strong oxidizing substances, strong acids and strong bases.

**Hazardous decomposition products**

**Hazardous decomposition products:** In case of fire, toxic gases may be formed.
### SECTION 11: TOXICOLOGICAL INFORMATION

**Information on toxicological effects**

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Acute Toxicity (Oral)</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Acute Toxicity (Dermal)</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Acute Toxicity (Inhalation)</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Skin Corrosion/Irritation</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Serious eye damage/irritation</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Respiratory or skin sensitization</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Germ cell mutagenicity</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Carcinogenicity</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>Reproductive Toxicity</td>
<td>Based on available data, the classification criteria are not met.</td>
</tr>
<tr>
<td>STOT - Single exposure</td>
<td>May cause damage to organs (kidneys) through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>STOT - Repeated exposure</td>
<td>May cause damage to organs (kidneys) through prolonged or repeated exposure.</td>
</tr>
<tr>
<td>Inhalation hazard</td>
<td>Not relevant at normal room temperatures. When heated, harmful vapors may be formed.</td>
</tr>
<tr>
<td>Skin contact</td>
<td>Prolonged contact may cause redness and irritation. Contains components which may penetrate the skin.</td>
</tr>
<tr>
<td>Eye contact</td>
<td>Splashes may irritate.</td>
</tr>
<tr>
<td>Ingestion</td>
<td>May cause intoxication, headache, dizziness, stomach pains, convulsions, and in serious cases, unconsciousness, acute kidney failure, breathing and heart failure. Lethal dose for an adult person: approx. 50-100 ml (ethanediol).</td>
</tr>
</tbody>
</table>

### SECTION 12: ECOLOGICAL INFORMATION

**Toxicity**

Ecotoxicity: The product is not expected to be hazardous to the environment.

**Persistence and degradability**

Degradability: The degradability of the product has not been stated.

**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: No information available.
SECTION 13: DISPOSAL CONSIDERATIONS

**Waste treatment methods**

- **Waste from residues:** Dispose of waste and residues in accordance with local authority requirements.
- **Contaminated packaging:** 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 relevant.
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: 2 Fire: 1 Reactivity: 0 Other:-

SARA Section 302: No.
SARA Section 304: Yes.
SARA Section 313: Yes.
SARA (311/312) Hazard categories: Yes.
CAA: Yes. (Ethylene glycol)
California Proposition 65: Ethylene glycol (ingested)

National regulation: The following lists have been checked:
Threshold Limit Values (2018), ACGIH, by the American Conference on
Governmental Industrial Hygienists.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and
Health Standards, Hazard Communication, with amendments.
The Code of Federal Regulation, Title 29, part 1910. Occupational Safety and
Health Standards, Air contaminants (OSHA), with amendments.
NIOSH Pocket Guide to Chemical Hazards.
The Code of Federal Regulation, Title 40, part 261.33. Identification and listing of
hazardous waste.
Reporting: Community Right to Know.
The Code of Federal Regulation. Title 40, part 355.50. Emergency Planning and
Notification.
The Code of Federal Regulation. Title 40, part 302.4. Designation, Reportable
Quantities, and Notification.
The Code of Federal Regulation. Title 40, part 68.130. Chemical Accident
Prevention Provisions.
U.S. Department of health and human services: 2016 - Report on Carcinogens -
14th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the
Organization.
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: 6, 9.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

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

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.