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

1.1. Product identifier

Product name: TRANSCOPY LIQUID
Cat. No. 40900090, 40900092
CAS-No.: 141-78-6
EC No.: 205-500-4
REACH Reg. No: 01-2119475103-46-xxxx
Container size: 40 ml

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

Application: Replication system for materialographic surfaces.
Uses advised against: No specific uses advised against are identified. (*)

1.3. Details of the supplier of the safety data sheet

Supplier: Struers ApS
Pederstrupvej 84
DK-2750 Ballerup
Tel:+45 44 600 800

Responsible for safety data sheet authoring: Responsible for safety data sheet authoring: DHI
Any questions to the contents of this safety data sheet should be sent to: struers@struers.dk

1.4. Emergency telephone number

NHS: 111
+45 44 600 800
(Only during office hours)
SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

CLP:

Flam. Liq. 2;H225
Eye Irrit. 2;H319
STOT SE 3;H336

2.2. Label elements

Danger

H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.
EUH066 Repeated exposure may cause skin dryness or cracking.
P210 Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
P271 Use only outdoors or in a well-ventilated area.
P280 Wear protective gloves/protective clothing/eye protection/face protection/hearing 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.
P501 Dispose of contents/container in accordance with local regulations.

2.3. Other hazards

The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures. Organic solvents may be absorbed into the body by inhalation and ingestion and cause permanent damage to the nervous system, including the brain.

PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances

The product contains: solvents.

CLP:

%: CAS-No.: EC No.: REACH Reg. No.: Chemical name: Hazard classification: Notes:
100 141-78-6 205-500-4 01-2119475103-46-xxxx Ethyl acetate Flam. Liq. 2;H225 Eye Irrit. 2;H319 STOT SE 3;H336 EUH066

References: The full text for all hazard statements is displayed in section 16.
SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

Burns: Flush with water immediately. While flushing, remove clothes which do not adhere to affected area. Call an ambulance. Continue flushing during transport to hospital.

Inhalation: Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.

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: Continue flushing during transport to hospital. 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.

4.2. Most important symptoms and effects, both acute and delayed

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

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Treat symptomatically.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog.

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

5.2. Special hazards arising from the substance or mixture

Specific hazards: Vapours are heavier than air and may travel along the floor and in the bottom of containers. Vapours may be ignited by a spark, a hot surface or an ember.

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

For non-emergency personnel: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. For personal protection, see section 8.

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

6.2. Environmental precautions

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

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with non-combustible, absorbent material.

6.4. Reference to other sections

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

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

Safe handling advice: Avoid inhalation of vapours and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures: Do not smoke or use open fire or other sources of ignition. Take precautionary measures against static discharges.

Technical precautions: Mechanical ventilation may be required. Provide easy access to water supply and eye wash facilities.

7.2. Conditions for safe storage, including any incompatibilities


Storage conditions: Store in tightly closed original container in a dry, cool and well-ventilated place. Avoid contact with oxidising agents.

7.3. Specific end use(s)

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

8.1. 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>141-78-6</td>
<td>Ethyl acetate</td>
<td>-</td>
<td>200 ppm</td>
<td>TWA</td>
<td>-</td>
<td>EH40</td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>400 ppm</td>
<td>STEL</td>
<td>15min</td>
<td></td>
</tr>
</tbody>
</table>

8.2. Exposure controls

Engineering measures: Provide adequate ventilation. Observe occupational exposure limits and minimise the risk of inhalation of vapours. An eye wash bottle must be available at the work site.

Personal protection: Personal protection equipment should be chosen according to the CEN 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 gas filter, type A2.

Hand protection: Wear protective gloves. Polyethylene 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 (*)

Eye protection: Wear face shield if there is risk of splashes.

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

Hygiene measures: Wash hands after handling.

Environmental Exposure Controls: Not available.
<table>
<thead>
<tr>
<th><strong>SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES</strong></th>
</tr>
</thead>
</table>

**9.1. Information on basic physical and chemical properties**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Odour of alcohol</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>Not available.</td>
</tr>
<tr>
<td>pH</td>
<td>Not available.</td>
</tr>
<tr>
<td>Melting point</td>
<td>-83°C</td>
</tr>
<tr>
<td>Boiling point</td>
<td>77°C</td>
</tr>
<tr>
<td>Flash point</td>
<td>-4°C</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>Not available.</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available.</td>
</tr>
<tr>
<td>Explosive limits</td>
<td>2,1-11,5 vol%</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>93 hPa (20°C)</td>
</tr>
<tr>
<td>Vapour density</td>
<td>Not available.</td>
</tr>
<tr>
<td>Relative density</td>
<td>0,9</td>
</tr>
<tr>
<td>Solubility</td>
<td>partly soluble in water</td>
</tr>
<tr>
<td>Partition coefficient</td>
<td>0,73 (20°C)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>460°C</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>Not available.</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Dynamic viscosity: 0,44 mPa*s (20°C)</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available.</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available.</td>
</tr>
</tbody>
</table>

**9.2. Other information**

<table>
<thead>
<tr>
<th>Property</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other data</td>
<td>Volatile Organic Compound (VOC): 902 g/l (calculated)</td>
</tr>
</tbody>
</table>
SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity
Reactivity: No data available.

10.2. Chemical stability
Stability: Stable under normal temperature conditions.

10.3. Possibility of hazardous reactions
Hazardous Reactions: No data available.

10.4. Conditions to avoid
Conditions/materials to avoid: Avoid heat, flames and other sources of ignition.

10.5. Incompatible materials
Incompatible materials: Strong oxidising substances.

10.6. Hazardous decomposition products
Hazardous decomposition products: No data available.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

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: Causes serious eye irritation.
Respiratory or skin sensitisation: 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.
Reproductive Toxicity: Based on available data, the classification criteria are not met.
STOT - Single exposure: May cause drowsiness or dizziness.
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: Vapours and spray mist may irritate throat and respiratory system and cause coughing. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.
Skin contact: Prolonged contact may cause redness, irritation and dry skin.
Ingestion: May irritate and cause malaise.
Specific effects: Prolonged or frequent inhalation of vapours in high concentrations may cause permanent damage to the nervous system, including the brain.
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity
Ecotoxicity: The environmental hazard of the product is considered to be limited.

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

12.3. Bioaccumulative potential
Bioaccumulative potential: Partition coefficient (n-octanol/water): 0.73 (20°C)

12.4. Mobility in soil
Mobility: No data available.

12.5. Results of PBT and vPvB assessment
PBT/vPvB: No information available.

12.6. Other adverse effects
Other adverse effects: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods
Waste from residues: Dispose of waste and residues in accordance with local authority requirements.
Waste is classified as hazardous waste. EWC-code: 16 05 08

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.
SECTION 14: TRANSPORT INFORMATION

The product is covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).

14.1. UN number
UN-No: 1173

14.2. UN proper shipping name
Proper Shipping Name: ETHYL ACETATE

Additional IMDG information:
EmS: F-E, S-D
MFAG: 1

14.3. Transport hazard class(es)
Class: 3

14.4. Packing group
PG: II

14.5. Environmental hazards
Marine pollutant: No.
Environmentally Hazardous substance: No.

14.6. Special precautions for user
Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL and the IBC Code
Transport in bulk: Not relevant.
SECTION 15: REGULATORY INFORMATION

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

**Special provisions:**
As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.

**National regulation:**
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.
The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), with amendments.

15.2. Chemical Safety Assessment

**CSA status:**
No chemical safety assessment has been carried out.
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.

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 Regulation (EC) No. 1272/2008:
Calculation method.

Wording of H-statements:
EUH066 Repeated exposure may cause skin dryness or cracking.
H225 Highly flammable liquid and vapour.
H319 Causes serious eye irritation.
H336 May cause drowsiness or dizziness.

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.