1. IDENTIFICATION

Product identifier

Product name: VERSOCIT-2 LIQUID
Cat. No. 40200091, 40200089
Container size: 500 ml, 1 l

Recommended use and restrictions on use

Application: For embedding of materialographic specimens
Identified use(s): No specific uses advised against are identified.

Details of the supplier of the safety data sheet

Supplier: Struers Ltd
7275 West Credit Avenue
Ontario L5N 5M9 Mississauga
Canada
Tel: +1 (905) 8148855

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

Emergency telephone number

Alberta & NWT:
Poison & Drug Information Service (PADIS): 1-800-332-1414

British Columbia:
Drug and Poison Information Centre (DPIC): 604-682-5050 / 1-800-567-8911

Ontario:
Poison Centre: 1-800-268-9017

Québec:
Poison Control Centre: 1-800-463-5060

Infotrac:
1-800-535-5053

Struers CAN:
+1 (905) 8148855
(Only during office hours)
2. HAZARDS IDENTIFICATION

Classification of the hazardous product

WHMIS 2015:
- Skin Irritation — Category 2
- Eye Irritation — Category 2
- Skin Sensitizer — Category 1
- Reproductive Toxicity — Category 1B

Label elements

Danger

H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H319 Causes serious eye irritation.
H360 May damage fertility or the unborn child.
P261 Avoid breathing dust/fume/gas/mist/vapours/spray.
P280 Wear protective clothing, gloves, eye and face protection.
P302 + P352 IF ON SKIN: Wash with plenty of water.
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.
P308 + P313 IF exposed or concerned: Get medical advice/attention.
P201 Obtain special instructions before use.
P202 Do not handle until all safety precautions have been read and understood.
P264 Wash contaminated skin thoroughly after handling.
P272 Contaminated work clothing should not be allowed out of the workplace.
P332 + P313 If skin irritation occurs: Get medical advice/attention.
P362 + P364 Take off contaminated clothing and wash it before reuse.
P405 Store locked up.
P501 Dispose of contents/container in accordance with local regulations.

Other hazards

PBT/vPvB: No information available.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: binders. (*)
<table>
<thead>
<tr>
<th>%</th>
<th>CAS-No.</th>
<th>EC No.</th>
<th>REACH Reg. No:</th>
<th>Chemical name:</th>
<th>Hazard classification:</th>
<th>Notes:</th>
</tr>
</thead>
<tbody>
<tr>
<td>50-75</td>
<td>2455-24-5</td>
<td>219-529-5</td>
<td>-</td>
<td>Tetrahydrofurfuryl-2-methacrylate</td>
<td>Skin Sensitizer Category 1</td>
<td>Reproductive Toxicity Category 1B</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic Toxicity Category 3</td>
<td></td>
</tr>
<tr>
<td>25-50</td>
<td>27813-02-1</td>
<td>248-666-3</td>
<td>-</td>
<td>2-Hydroxypropyl methacrylate</td>
<td>Skin Irritation Category 2</td>
<td>Eye Irritation Category 2</td>
</tr>
<tr>
<td>2.5-10</td>
<td>2082-81-7</td>
<td>218-218-1</td>
<td>-</td>
<td>Tetramethylene dimethacrylate</td>
<td>Skin Sensitizer Category 1B</td>
<td></td>
</tr>
<tr>
<td>&lt;2.5</td>
<td>99-97-8</td>
<td>202-805-4</td>
<td>-</td>
<td>N,N-Dimethyl-p-toluidine</td>
<td>Acute (Inhalation) Toxicity Category 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute (Dermal) Toxicity Category 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute (Oral) Toxicity Category 3</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Category 2 Target organ toxicant, Repeated Exposure</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Chronic Toxicity Category 3</td>
<td></td>
</tr>
<tr>
<td>&lt;0.1</td>
<td>123-31-9</td>
<td>204-617-8</td>
<td>-</td>
<td>1,4-Dihydroxybenzene</td>
<td>Carcinogenicity Category 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Germ Cell Mutagenicity Category 2</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Acute (Oral) Toxicity Category 4</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Serious Eye Damage Category 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Skin Sensitizer Category 1</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Aquatic Acute Toxicity Category 1</td>
<td></td>
</tr>
</tbody>
</table>
4. FIRST-AID MEASURES

**Description of first-aid measures**

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

**Skin contact:**
Remove contaminated clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and take 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: 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.

**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.

5. FIRE-FIGHTING MEASURES

**Extinguishing media**

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

**Unsuitable extinguishing media:**
No specific precautions.

**Specific hazards arising from the hazardous product**

**Specific hazards:**
By heating and fire, harmful vapors/gases may be formed.

**Advice for fire-fighters**

**Protective equipment for fire-fighters:**
Selection of respiratory protection for fire fighting: follow the general fire precautions indicated in the workplace.

6. ACCIDENTAL RELEASE MEASURES

**Personal precautions, protective equipment and emergency procedures**

**For non-emergency personnel:**
Avoid inhalation of vapors and contact with skin and eyes. For personal protection, see section 8.

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

**Environmental precautions**

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

**Methods and material for containment and cleaning up**

**Spill Cleanup Methods:**
Absorb spillage with suitable absorbent material.

**Reference to other items**

**References:**
For personal protection, see section 8. For waste disposal, see section 13.
7. HANDLING AND STORAGE

**Precautions for safe handling**

**Safe handling advice:** Avoid inhalation of vapors and 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:** Follow rules for flammable liquids.

**Storage conditions:** Store in closed original container in a dry place. Avoid contact with oxidizing agents. Keep away from food, drink and animal feeding stuffs.

**Specific end-use(s)**

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

Control parameters

Other provincial OEL’s may apply.

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>123-31-9</td>
<td>Hydroquinone</td>
<td>-</td>
<td>2 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>Quebec</td>
</tr>
<tr>
<td>123-31-9</td>
<td>Hydroquinone</td>
<td>-</td>
<td>2 mg/m³</td>
<td>TWA</td>
<td>-</td>
<td>Alberta</td>
</tr>
<tr>
<td>123-31-9</td>
<td>Hydroquinone</td>
<td>-</td>
<td>1 mg/m³</td>
<td>TWA</td>
<td>S</td>
<td>BC</td>
</tr>
</tbody>
</table>

Exposure controls

Engineering measures: Provide adequate ventilation. Observe Occupational Exposure Limits and minimize the risk of inhalation. Provide easy access to water supply and eye wash facilities.

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

Respiratory equipment: In case of inadequate ventilation use suitable respirator. Use respiratory equipment with combination filter, type A2/P2.

Hand protection: Wear protective gloves. Butyl rubber gloves are recommended, but be aware that the liquid may penetrate the gloves. Frequent change is advisable. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Thickness: 0.3 mm
Breakthrough time: 60 min. (*)

Eye protection: Wear goggles/face shield.

Skin protection: Wear appropriate clothing to prevent any possibility of skin contact.

Hygiene measures: Wash contaminated clothing before reuse. When using do not eat, drink or smoke.

Environmental Exposure Controls: Not available.
### 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>Colour</strong></td>
<td>Colourless</td>
</tr>
<tr>
<td><strong>Odour</strong></td>
<td>Ester</td>
</tr>
<tr>
<td><strong>Odour threshold</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>pH</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Melting point</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Boiling point</strong></td>
<td>&gt;34°C</td>
</tr>
<tr>
<td><strong>Flash point</strong></td>
<td>91°C</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>Not available</td>
</tr>
<tr>
<td><strong>Vapour pressure</strong></td>
<td>0,1 hPa (20°C)</td>
</tr>
<tr>
<td><strong>Vapour density</strong></td>
<td>Not available</td>
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<tr>
<td><strong>Relative density</strong></td>
<td>1,033</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 (°C)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature (°C)</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Viscosity</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Explosive properties</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Oxidising properties</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Other information</strong></td>
<td></td>
</tr>
<tr>
<td><strong>Other data</strong></td>
<td>Volatile Organic Compound (VOC): 310 g/l (calculated)</td>
</tr>
</tbody>
</table>
10. STABILITY AND REACTIVITY

**Reactivity**
- Reactivity: No data available.

**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: Avoid exposure to high temperatures or direct sunlight.

**Incompatible materials**
- Incompatible materials: Avoid contact with oxidizing agents.

**Hazardous decomposition products**
- Hazardous decomposition products: None in particular.

11. TOXICOLOGICAL INFORMATION

**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: Causes skin irritation.
- Serious eye damage/irritation: Causes serious eye irritation.
- Respiratory or skin sensitization: May cause an allergic skin reaction.
- 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 2B for N,N-Dimethyl-p-toluidine IARC Cancer Review: Group 3 for Hydroquinone.
- Reproductive Toxicity: May damage fertility or the unborn child.
- 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: May cause irritation to the respiratory system.
- Ingestion: May irritate and cause malaise.
12. ECOLOGICAL INFORMATION

**Ecotoxicity**

Ecotoxicity: Harmful to aquatic life with long lasting effects.
Tetrahydrofurfuryl-2-methacrylate: LC50 96 hours, fish, mg/l = 34.7 (*)

**Persistence and degradability**

Degradability: There are no data on the degradability of this product.

**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.

13. DISPOSAL CONSIDERATIONS

**Waste treatment methods**

Waste from residues: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations. Waste is classified as hazardous waste.

Contaminated packaging: Dispose of waste material according to Local, State, Federal, and Provincial Environmental Regulations.
## 14. TRANSPORT INFORMATION

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

**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
15. REGULATORY INFORMATION

Safety, health and environmental regulations specific to the product

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.

This product has been classified in accordance with the hazard criteria of the Hazardous Products Regulations (HPR) and the SDS contains all the information required by the HPR.

DSL: All chemicals included in the product are DSL listed or exempt.

National regulation:

Hazardous Products Regulations, with amendments.
Canadian Environmental Protection Act, Reporting for the Domestic Substances List (DSL), with amendments.
Ontario: Control of Exposure to Biological or Chemical Agents R.R.O. 1990, Reg. 833, with amendments (2016).
Quebec: Regulation respecting the quality of the work environment, with amendments (2013-12-13).
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: 3, 8, 12.
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 WHMIS 2015:
- 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.