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

Product identifier

Product name: LEVOCIT LIQUID
Cat. No. 40200092, 40200094

Container size: 300 ml, 1 l

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

Application: For embedding of materialographic specimens
Uses advised against: No specific uses advised against are identified. (*)

Details of the supplier of the safety data sheet

Supplier: Struers Australia
27 Mayneview Street
Milton QLD 4064, Australia

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


+61 7 3512 9600
(Only during office hours)
SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

WHS:
- Flammable liquid - Category 2
- Skin corrosion/irritation - Category 2
- Skin Sensitisation - Category 1
- Specific target organ toxicity (single exposure) - Category 3 (respiratory tract irritation)

Label elements

Danger
Contains:
- Methyl methacrylate
- Tetramethylene dimethacrylate

H225: Highly flammable liquid and vapour.
H315: Causes skin irritation.
H317: May cause an allergic skin reaction.
H335: May cause respiratory irritation.
P210: Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261: Avoid breathing dust/fume/gas/mist/vapours/spray.
P280: Wear protective gloves/protective clothing/eye protection/face protection.
P302 + P352: IF ON SKIN: Wash with plenty of soap and water.
P333 + P313: If skin irritation or rash occurs: Get medical advice/attention.

Other hazards
The product is highly flammable, and explosive vapours/air mixtures may be formed even at normal room temperatures.

PBT/vPvB:
No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures
The product contains: Liquid based on methacryl acid ester, containing an activator.

WHS:

<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>
</table>
| 50-75 | 80-62-6 | 201-297-1 | -              | Methyl methacrylate              | Flam. Liq. 2;H225  
STOT SE 3;H335  
Skin Irrit. 2;H315  
Skin Sens. 1;H317 | D     |
| 1-5  | 2082-81-7 | 218-218-1 | -              | Tetramethylene dimethacrylate    | Skin Sens. 1B;H317   |       |
SECTION 4: FIRST AID MEASURES

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 clothing immediately and wash skin with soap and water. In case of eczema or other skin disorders: Seek medical attention and bring 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: Extinguish with alcohol-resistant foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Unsuitable extinguishing media: No specific precautions.

Special hazards arising from the substance or mixture

Specific hazards: During fire, gases hazardous to health 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: 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.

Environmental precautions

Avoid discharge into drains, water courses or onto the ground.

Methods and material for containment and cleaning up

Spill Cleanup Methods: Remove sources of ignition. Dam and absorb spillages with sand, earth or other non-combustible 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: Do not smoke or use open fire or other sources of ignition. Avoid inhalation of vapours and contact with skin and eyes. Observe good chemical hygiene practices.

Technical measures: Work practice should minimise contact.

Technical precautions: Local exhaust is recommended.

Conditions for safe storage, including any incompatibilities


Storage conditions: Store in tightly closed original container in a well-ventilated place. (10 - 25°C)

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>80-62-6</td>
<td>Methyl methacrylate</td>
<td>-</td>
<td>50 ppm</td>
<td>TWA</td>
<td>Sen</td>
<td>WES</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>208 mg/m3</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>-</td>
<td>100 ppm</td>
<td>STEL</td>
<td>Sen; 15min</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>416 mg/m3</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Notes: Sen: Sensitiser.

Exposure controls

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

Personal protection: Personal protection equipment should be chosen according to relevant AS/NZS 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. 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.

Breakthrough time: 5 min
Thicknes: 0,1 - 0,2 mm (*)

Eye protection: Wear goggles/face shield.

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

Hygiene measures: Remove contaminated clothing and wash the skin thoroughly with soap and water after work. When using do not eat, drink or smoke.

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>Form</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour</td>
<td>Colourless</td>
</tr>
<tr>
<td>Odour</td>
<td>Ester</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>Not available</td>
</tr>
<tr>
<td>Boiling point</td>
<td>101 °C</td>
</tr>
<tr>
<td>Flash point</td>
<td>10 °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>Explosion limits</td>
<td>2,1-12,5 vol%</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>47 hPa</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>Immiscible with water</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition temperature (°C)</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>Not available</td>
</tr>
<tr>
<td>Oxidising properties</td>
<td>Not available</td>
</tr>
</tbody>
</table>

**Other information**

**Other data:**

Volatile Organic Compound (VOC): 750 g/l (calculated)
SECTION 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 oxidising agents.

Hazardous decomposition products
Hazardous decomposition products: None in particular.
SECTION 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:** Based on available data, the classification criteria are not met.
**Respiratory or skin sensitisation:** 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 3 for Methyl methacrylate.
**Reproductive Toxicity:** Based on available data, the classification criteria are not met.
**STOT - Single exposure:** May cause respiratory irritation.
**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 may cause headache, fatigue, dizziness and nausea.
**Skin contact:** Contains components which may penetrate the skin.
**Eye contact:** May irritate and cause redness and pain.
**Ingestion:** Irritating. May be absorbed in the body and cause dizziness, nausea and vomiting.
**Specific effects:** Frequent inhalation of even small concentrations may cause irritability, fatigue and memory failure and eventually permanent damage to the nervous system, including the brain.
**Toxicological data:** Methyl methacrylate:
LD50: >5000 mg/kg (oral rat)
LC50 (inhalation, rat, 4h): 7093 ppm
SECTION 12: ECOLOGICAL INFORMATION

Toxicity

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

LC50 (Oncorhynchus mykiss, 96 h): >79 mg/l (OECD 203)

Persistence and degradability

Degradability: The degradability of the product has not been stated.
Methyl methacrylate: 30.7% (28 d)(OECD 301C)

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. For personal protection, see section 8. Hazardous characteristics of waste: H3 (Flammable liquids)

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

UN number
UN-No: 1247

UN proper shipping name
Proper Shipping Name: METHYL METHACRYLATE MONOMER, STABILISED

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

Transport hazard class(es)
Class: 3

Packing group
PG: II

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

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: AICS: Listed.

National regulation:
- Work Health and Safety Regulations 2011, with amendments.
- The Industrial Chemicals (Notification and Assessment) Act 1989, as amended.
- Hazardous Waste (Regulation of Exports and Imports) Act 1989, with amendments.
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, 9.
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 WHS Regulations 2011:
Calculation method.

Wording of H-statements:
H225 Highly flammable liquid and vapour.
H315 Causes skin irritation.
H317 May cause an allergic skin reaction.
H335 May cause respiratory irritation.

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.