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

Product identifier

Product name: VIAFIX LIQUID
Cat. No. 40200069, 40200067

Container size: 500 ml, 1 l

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

Application: For embedding and impregnation of materialographic specimens

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: 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:
Flammable Liquid Category 3
Skin Irritant Category 2
Eye irritant Category 2A
Skin Sensitizer Category 1
Category 3 Target organ toxicant, Single Exposure (respiratory tract irritation)
Aquatic Acute Toxicity Category 1
Aquatic Chronic Toxicity Category 2
**SAFETY DATA SHEET**

**Product name:** VIAFIX LIQUID  
**Revision Date:** 2018-11-09  
**Document No.:** M0145

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**Label elements**

![Warning symbol]

**Warning**

H226  Flammable liquid and vapour.
H315  Causes skin irritation.
H317  May cause an allergic skin reaction.
H319  Causes serious eye irritation.
H335  May cause respiratory irritation.
H400  Very toxic to aquatic life.
H411  Toxic to aquatic life with long lasting effects.

**Precautions for use**

P210  Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P261  Avoid breathing dust/fume/gas/mist/vapours/spray.
P273  Avoid release to the environment.
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.
P271  Use only outdoors or in a well-ventilated area.
P333 + P313  If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313  If eye irritation persists: Get medical advice/attention.
P370 + P378  In case of fire: Use alcohol resistant foam, carbon dioxide or dry powder to extinguish.
P391  Collect spillage.
P403 + P233  Store in a well-ventilated place. Keep container tightly closed.
P501  Dispose of contents/container in accordance with local regulations.

**Other hazards**

The product is flammable, and heating may generate vapors which may form explosive vapor/air mixtures.

**PBT/vPvB:**

No information available.

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**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixtures**

The product contains: acrylates and additives.
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: 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.
SECTION 5: FIREFIGHTING MEASURES

Extinguishing media
Extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog. Cool containers exposed to heat with water spray and remove container, if no risk is involved.

Special hazards arising from the substance or mixture
Specific hazards: When heated and in case of fire, toxic vapors/gases may be formed.

Advice for firefighters
Protective equipment for firefighters: Use air-supplied respirator during fire fighting.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures
Protective equipment: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapors and 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: Do not 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: 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

Storage conditions: Store in tightly closed original container in a well-ventilated place. Avoid contact with oxidizing agents.

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

Control parameters
No occupational exposure limit assigned.

Exposure controls
Engineering measures: Provide adequate ventilation. Minimize the risk of inhalation of vapors. Provide easy access to water supply and eye wash facilities.

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: Use respiratory equipment with gas filter, type A2.

Hand protection: Wear protective gloves. Laminate (PE/EVOH) gloves are recommended. 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.

Eye protection: Wear goggles/face shield.

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

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><strong>Form:</strong></td>
<td>Liquid</td>
</tr>
<tr>
<td><strong>Color:</strong></td>
<td>Colorless</td>
</tr>
<tr>
<td><strong>Odor:</strong></td>
<td>Ester</td>
</tr>
<tr>
<td><strong>Odor threshold:</strong></td>
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</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>155°C</td>
</tr>
<tr>
<td><strong>Flash point:</strong></td>
<td>43°C</td>
</tr>
<tr>
<td><strong>Evaporation rate:</strong></td>
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</tr>
<tr>
<td><strong>Flammability (solid, gas):</strong></td>
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<tr>
<td><strong>Explosion limits:</strong></td>
<td>2-8 vol%</td>
</tr>
<tr>
<td><strong>Vapor pressure:</strong></td>
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</tr>
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<td><strong>Vapor density:</strong></td>
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<tr>
<td><strong>Relative density:</strong></td>
<td>0,89</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>log Pow = 1,38</td>
</tr>
<tr>
<td><strong>Auto-ignition temperature (°F):</strong></td>
<td>Not available</td>
</tr>
<tr>
<td><strong>Decomposition temperature (°F):</strong></td>
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<tr>
<td><strong>Viscosity:</strong></td>
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<tr>
<td><strong>Explosive properties:</strong></td>
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</tr>
<tr>
<td><strong>Oxidizing properties:</strong></td>
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</tr>
</tbody>
</table>

**Other information**

**Other data:** Volatile Organic Compound (VOC): 778 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: No data available.

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: When heated and in case of fire, toxic vapors/gases may be formed.

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: 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
OSHA: No.
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: Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.
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.
SECTION 12: ECOLOGICAL INFORMATION

Toxicity
Ecotoxicity: Very toxic to aquatic life. Toxic to aquatic life with long lasting effects.

Persistence and degradability
Degradability: The product is readily biodegradable.

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

**UN number**

**UN-No:** 1866

**UN proper shipping name**

**Proper Shipping Name:** RESIN SOLUTION, flammable (Isobutyl methacrylate)

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

**Transport hazard class(es)**

**Class:** 3

**Packing group**

**PG:** III

**Environmental hazards**

**Marine pollutant:** Yes.

**Environmentally Hazardous substance:** Yes.

**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:2 Reactivity:0 Other:-

SARA Section 302: No.
SARA Section 304: No.
SARA Section 313: No.
SARA (311/312) Hazard categories: Yes.
California Proposition 65. (N,N-Dimethyl-p-toluidine)

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 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.

[Signature]

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.