

SAFETY DATA SHEET



Product name: VIAFIX LIQUID
Revision Date: 2015-01-09
Document No.: M0145

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Print date: 2015-01-09
SDS-ID: US-EN/12.0

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 of specimens

Details of the supplier of the safety data sheet

Supplier: Struers A/S
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:
Chemical.info@struers.dk

Emergency telephone number

Emergency telephone: Infotrac:
1-800-535-5053
Struers US:
1-440-871-0071

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

The product is classified:

67/548/EEC / 1999/45/EC: R10 Xn;R20/21/22 Xi;R36/37/38 R33 R43 N;R50/53

GHS: Flam. Liq. 3;H226 - Acute Tox. 4;H332 - Acute Tox. 4;H312 - Acute Tox. 4;H302 - Eye Irrit. 2;H319 - STOT SE 3;H335 - Skin Irrit. 2;H315 - STOT RE 2;H373 - Skin Sens. 1;H317 - Aquatic Acute 1;H400 - Aquatic Chronic 1;H410

Label elements



Warning

<u>Contains:</u>	Isobutyl methacrylate N,N-Dimethyl-p-toluidine
H226	Flammable liquid and vapour.
H302 + H312 + H332	Harmful if swallowed, in contact with skin or if inhaled.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H410	Very toxic to aquatic life with long lasting effects.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. 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.
	NFPA Rating: Health:2 Fire:2 Reactivity:0 Other:-

Other hazards

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

PBT/vPvB: Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: resin, organic solvents and additives.

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67/548/EEC:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
60-100	97-86-9	202-613-0	-	Isobutyl methacrylate	R10 R43 Xi;R36/37/38 N;R50	D
10-30	3290-92-4	221-950-4	-	1,1,1-Trimethylolpropane trimethacrylate	N;R51-53	
1-<5	99-97-8	202-805-4	-	N,N-Dimethyl-p-toluidine	T;R23/24/25 R33 R52-53	C

GHS:

<u>%:</u>	<u>CAS-No.:</u>	<u>EC No.:</u>	<u>REACH Reg. No.:</u>	<u>Chemical name:</u>	<u>Hazard classification:</u>	<u>Notes:</u>
60-100	97-86-9	202-613-0	-	Isobutyl methacrylate	Flam. Liq. 3;H226 Eye Irrit. 2;H319 STOT SE 3;H335 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Acute 1;H400	D
10-30	3290-92-4	221-950-4	-	1,1,1-Trimethylolpropane trimethacrylate	Aquatic Chronic 2;H411	
1-<5	99-97-8	202-805-4	-	N,N-Dimethyl-p-toluidine	Acute Tox. 3;H331 Acute Tox. 3;H311 Acute Tox. 3;H301 STOT RE 2;H373 Aquatic Chronic 3;H412	C

References: The full text for all R-phrases and hazard statements are displayed in section 16.

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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 up to 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: Not known.

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 fire-fighters: Use air-supplied respirator during fire fighting.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions: Do not smoke or use open fire, or other sources of ignition. Avoid inhalation of vapors and contact with skin and eyes.

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.

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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

Technical measures for safe storage: Follow rules for flammable liquids.

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): Not relevant.

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 CEN 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.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

Appearance: colorless liquid

Odor: Ester.

pH: Not available.

Boiling point: 155°C

Flash point: 43°C

Explosion limits: 2-8 vol%

Vapor pressure: 47 hPa (20°C)

Relative density: 0,89

Solubility: insoluble in water

Partition coefficient
(n-octanol/water): log Pow = 1,38

Other information

Other data: Volatile Organic Compound (VOC): 778 g/l (calculated)

SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None known.

Chemical stability

Stability: Stable under normal temperature conditions.

Possibility of hazardous reactions

Hazardous Reactions: None known.

Conditions to avoid

Conditions/materials to avoid: Avoid exposure to high temperatures or direct sunlight. Avoid contact with oxidizing agents.

Incompatible materials

Incompatible materials: None known.

Hazardous decomposition products

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

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SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Inhalation: Harmful if inhaled. May cause respiratory irritation. Vapors have a narcotic effect and may cause headache, fatigue, dizziness and nausea.

Skin contact: Harmful in contact with skin. Irritating. Risk of sensitization or allergic reactions among sensitive individuals.

Eye contact: Causes serious eye irritation.

Ingestion: Harmful if swallowed. 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.

Carcinogenicity:
National Toxicology Program (NTP): No.
I.A.R.C. Monographs: No.
OSHA: No.

SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

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: Not relevant.

Other adverse effects

Other adverse effects: None known.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste.

Waste from residues: EWC-code:16 05 08

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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: TSCA: Listed.

As a general rule, persons under 18 years of age are not allowed to work with this product.

National regulation: Europe/USA:
This Material Safety Data Sheet has been prepared according to the EU-regulation.

Chemical Safety Assessment

CSA status: Not relevant.

SECTION 16: OTHER INFORMATION

For restrictions on use see section 15.

The following sections contain revisions or new statements: 2.

The (*) indicates the changes made with respect to the previous version.

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Approved by DHI.

Allan Vorup

Additional information: Classification according to Regulation (EC) No. 1272/2008:
Annex VII translation table.

Wording of H-statements:

R10	Flammable.
R20/21/22	Harmful by inhalation, in contact with skin and if swallowed.
R23/24/25	Toxic by inhalation, in contact with skin and if swallowed.
R33	Danger of cumulative effects.
R36/37/38	Irritating to eyes, respiratory system and skin.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R51/53	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
H226	Flammable liquid and vapour.
H302/312/332	Harmful if swallowed, in contact with skin or if inhaled.
H301	Toxic if swallowed.
H311	Toxic in contact with skin.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H331	Toxic if inhaled.
H335	May cause respiratory irritation.
H373	May cause damage to organs through prolonged or repeated exposure.
H400	Very toxic to aquatic life.
H410	Very toxic to aquatic life with long lasting effects.
H411	Toxic to aquatic life with long lasting effects.
H412	Harmful to aquatic life with long lasting effects.

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.