

SAFETY DATA SHEET



Product name:	DUROCIT-3 LIQUID II	Page:	1/10
Revision Date:	2018-12-03	Print date:	2018-12-03
Document No.:	M0191	SDS-ID:	AU-EN/5.0

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

Product identifier

Product name: DUROCIT-3 LIQUID II
Cat. No.40200095, 40200097

Container size: 150 ml, 1l

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

Application: For embedding of materialographic specimens

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

Australian Poisons Information Centre: 13 11 26.

+61 7 3512 9600
(Only during office hours)

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

WHS:

- Flammable liquid - Category 2
- Skin corrosion/irritation - Category 2
- Skin Sensitisation - Category 1
- Toxic to reproduction - Category 2
- Specific target organ toxicity (single exposure) - Category 3 (respiratory tract irritation)
- Specific target organ toxicity (repeated exposure) - Category 2

Label elements



Danger

Contains:

Methyl methacrylate
Styrene

H225	Highly flammable liquid and vapour.
H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H373H	May cause damage to organs (hearing organs) through prolonged or repeated exposure.
P210	Keep away from heat/sparks/open flames/hot surfaces. - No smoking.
P260	Do not breathe gas, fume, vapours or spray.
P280	Wear protective clothing, gloves, eye and face protection.
P302 + P352	IF ON SKIN: Wash with plenty of soap and water.
P501	Dispose of contents/container in accordance with local regulations.

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: Methyl methacrylate and Styrene.

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WHS:

<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>
25-50	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
5-<10	100-42-5	202-851-5	-	Styrene	Flam. Liq. 3;H226 Acute Tox. 4;H332 Skin Irrit. 2;H315 Eye Irrit. 2;H319 Repr. 2;H361 STOT RE 1;H372 Asp. Tox. 1;H304 Aquatic Chronic 3;H412	
<1	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 hazard statements is displayed in section 16.

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.

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

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 fire-fighters: 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

Protective equipment: Avoid inhalation of vapours 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: Absorb spillage with non-combustible, absorbent 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 vapours and contact with skin and eyes.

Technical measures: Use work methods which minimise aerosol production. Do not smoke or use open fire or other sources of ignition. Do not eat, drink or smoke when using the product.

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 dry and cool place.

Specific end use(s)

Specific use(s): No information available.

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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Occupational exposure limits:

<u>CAS-No.:</u>	<u>Chemical name:</u>	<u>As:</u>	<u>Exposure limits:</u>		<u>Type:</u>	<u>Notes:</u>	<u>References:</u>
80-62-6	Methyl methacrylate	-	50 ppm	208 mg/m3	TWA	-	NOHSC
		-	100 ppm	416 mg/m3	STEL	15min	
100-42-5	Styrene, monomer	-	50 ppm	213 mg/m3	TWA	-	NOHSC
		-	100 ppm	426 mg/m3	STEL	15min	

Exposure controls

<u>Engineering measures:</u>	Provide adequate ventilation. Observe Occupational Exposure Limits and minimise the risk of inhalation of vapours.
<u>Personal protection:</u>	Personal protection equipment should be chosen according to relevant AS/NZS standards and in discussion with the supplier of the personal protective equipment.
<u>Respiratory equipment:</u>	In case of inadequate ventilation: Use respiratory equipment with gas filter, type A2.
<u>Hand protection:</u>	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.
<u>Eye protection:</u>	Wear goggles/face shield.
<u>Skin protection:</u>	Wear apron or protective clothing in case of splashes.
<u>Hygiene measures:</u>	Remove contaminated clothing and wash the skin thoroughly with soap and water after work. When using do not eat, drink or smoke.
<u>Environmental Exposure Controls:</u>	Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

(*)

<u>Form:</u>	Liquid.
<u>Colour:</u>	Greenish.
<u>Odour:</u>	Characteristic.
<u>Odour threshold:</u>	Not available.
<u>pH:</u>	Not available.
<u>Melting point:</u>	Not available.
<u>Boiling point:</u>	100°C
<u>Flash point:</u>	12°C
<u>Evaporation rate:</u>	Not available.
<u>Flammability (solid, gas):</u>	Not available.
<u>Explosion limits:</u>	2.1-12.5 vol%
<u>Vapour pressure:</u>	47 hPa (20°C)
<u>Vapour density:</u>	Not available.
<u>Relative density:</u>	1.05
<u>Solubility:</u>	Immiscible with water.
<u>Partition coefficient (n-octanol/water):</u>	Not available.
<u>Auto-ignition temperature (°C):</u>	Not available.
<u>Decomposition temperature (°C):</u>	Not available.
<u>Viscosity:</u>	Not available.
<u>Explosive properties:</u>	Not available.
<u>Oxidising properties:</u>	Not available.
<u>Other information</u>	
<u>Other data:</u>	Volatile Organic Compound (VOC): approx. 650 g/l (calculated)

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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 oxidising agents.

Hazardous decomposition products

Hazardous decomposition products: Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

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): Group R for Styrene.
IARC Cancer Review: Group 2A for Styrene. (*)
IARC Cancer Review: Group 3 for Methyl methacrylate.
IARC Cancer Review: Group 2B for N,N-Dimethyl-p-toluidine

Reproductive Toxicity: Suspected of damaging fertility or the unborn child.

STOT - Single exposure: May cause respiratory irritation.

STOT - Repeated exposure: May cause damage to organs (hearing organs) through prolonged or repeated exposure.

Aspiration hazard: Based on available data, the classification criteria are not met.

Inhalation: Vapours may irritate throat and respiratory system and cause coughing. In high concentrations, vapours are narcotic and may cause headache, fatigue, dizziness and nausea.

Eye contact: Direct contact may irritate.

Ingestion: May irritate and cause malaise.

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity

Ecotoxicity: The product contains a substance which causes risk of hazardous effects to the environment.

Persistence and degradability

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

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: The product contains volatile, organic compounds which have a photochemical ozone creation potential.

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) (*)
Note that fully cured material is not considered as hazardous waste.

Contaminated packaging: Dispose of waste and residues in accordance with local authority requirements.

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SECTION 14: TRANSPORT INFORMATION

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

UN number

UN-No: 1866

UN proper shipping name

Proper Shipping Name: RESIN SOLUTION, flammable

Additional IMDG information:

EmS: F-E, S-E

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: Not available.

National regulation: Work Health and Safety Regulations 2011, with amendments.
National model Code of Practice for the Labelling of Workplace Hazardous Chemicals (2011), with amendments.
National model Code of Practice for the Preparation of Safety Data Sheets for Hazardous Chemicals (2011), with amendments.
Workplace exposure standards for airborne contaminants (2018).
Hazardous Waste (Regulation of Exports and Imports) Act 1989, with amendments.
The Industrial Chemicals (Notification and Assessment) Act 1989, as amended.

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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: 6, 9, 11, 13.

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

Approved by DHI.

Allan Vorup

Additional information:

Classification according to WHS Regulations 2011:
Calculation method.

Wording of H-statements:

H225	Highly flammable liquid and vapour.
H226	Flammable liquid and vapour.
H301	Toxic if swallowed.
H304	May be fatal if swallowed and enters airways.
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.
H332	Harmful if inhaled.
H335	May cause respiratory irritation.
H361	Suspected of damaging fertility or the unborn child.
H372H	Causes damage to organs (hearing organs) through prolonged or repeated exposure.
H373H	May cause damage to organs (hearing organs) through prolonged or repeated exposure.
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.

Made by DHI - Environment and Toxicology, Agern Allé 5, DK-2970 Hørsholm, Denmark.
www.dhigroup.com.