

SAFETY DATA SHEET



Product name: EPOFIX RESIN
Revision Date: 2018-11-28
Document No.: M0025

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SDS-ID: CA-EN/20.0

1. IDENTIFICATION

Product identifier

Product name: EPOFIX RESIN
Cat. No. 40200030, 40200029

Container size: 1 l

Recommended use and restrictions on use

Application: For embedding and impregnation of materialographic specimens

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)

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2. HAZARDS IDENTIFICATION

Classification of the hazardous product

WHMIS 2015:

- Skin Irritation — Category 2
- Eye Irritation — Category 2
- Skin Sensitizer — Category 1
- Aquatic Chronic Toxicity — Category 2

Label elements



Warning

H315	Causes skin irritation.
H317	May cause an allergic skin reaction.
H319	Causes serious eye irritation.
H411	Toxic to aquatic life with long lasting effects.
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.
P333 + P313	If skin irritation or rash occurs: Get medical advice/attention.
P337 + P313	If eye irritation persists: Get medical advice/attention.
P101	If medical advice is needed, have product container or label at hand.
P103	Read label before use.
P261	Avoid breathing gas, fume, vapours or spray.
P272	Contaminated work clothing should not be allowed out of the workplace.
P362 + P364	Take off contaminated clothing and wash it before reuse.
P391	Collect spillage.
P501	Dispose of contents/container in accordance with local regulations.

Other hazards

PBT/vPvB: Not Classified as PBT/vPvB by current EU criteria.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: epoxy resin. (*)

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WHMIS 2015:

%:	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
60-90	25068-38-6	500-033-5	01-2119456619-26-xxxx	Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	Eye Irritation Category 2 Skin Irritation Category 2 Skin Sensitizer Category 1 Aquatic Chronic Toxicity Category 2	
10-40	68609-97-2	271-846-8	01-2119485289-22-xxxx	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.	Skin Irritation Category 2 Skin Sensitizer Category 1	

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 foam, carbon dioxide, dry powder or water fog.
Unsuitable extinguishing media: Do not use water jet as an extinguisher, as this will spread the fire.

Specific hazards arising from the hazardous product

Specific hazards: By heating and fire, irritating 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.

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6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Protective equipment: Avoid inhalation of vapors and aerosols 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: 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: Observe good chemical hygiene practices. Avoid inhalation of vapors and aerosols and contact with skin and eyes.
Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site.

Technical measures: Work practice should minimize contact. Technical aids: Use disposable equipment (rags, brushes, spatulas, putty knives, etc.), if possible.

Technical precautions: First-aid equipment, including eye wash bottle, must be available at the work site.

Conditions for safe storage, including any incompatibilities

Technical measures for safe storage: No special precautions.

Storage conditions: Store in closed original container in a dry place. Avoid contact with oxidizing agents.

Specific end-use(s)

Specific use(s): No information available.

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8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit assigned.

Exposure controls

<u>Engineering measures:</u>	Mix and prepare in a place with efficient exhaust ventilation. An eye wash bottle must be available at the work site.
<u>Personal protection:</u>	Personal protection equipment should be chosen according to relevant standards and in discussion with the supplier of the personal protective equipment.
<u>Respiratory equipment:</u>	In case of inadequate ventilation and work of brief duration, use suitable respiratory equipment. It is recommended to use respiratory equipment with combination filter, type ABEK
<u>Hand protection:</u>	Use disposable gloves protecting against epoxy along with cotton gloves closest to the skin. Laminate (PE/EVOH) gloves are recommended. 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>	Risk of contact: 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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9. PHYSICAL AND CHEMICAL PROPERTIES

Information on basic physical and chemical properties

(*)

<u>Form:</u>	Liquid.
<u>Colour:</u>	Colourless to pale yellow.
<u>Odour:</u>	Mild.
<u>Odour threshold:</u>	Not available.
<u>pH:</u>	Not available.
<u>Melting point:</u>	Not available.
<u>Boiling point:</u>	>148°C
<u>Flash point:</u>	176.7 - 190.6°C
<u>Evaporation rate:</u>	Not available.
<u>Flammability (solid, gas):</u>	Not available.
<u>Explosion limits:</u>	Not available.
<u>Vapour pressure:</u>	0.06 mmHg (21°C)
<u>Vapour density:</u>	Not available.
<u>Relative density:</u>	1.11 - 1.14
<u>Solubility:</u>	Insoluble in 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>	600 - 800 cP (25°C)
<u>Explosive properties:</u>	Not available.
<u>Oxidising properties:</u>	Not available.
<u>Other information</u>	
<u>Other data:</u>	Volatile Organic Compound (VOC): 0 g/l

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10. STABILITY AND REACTIVITY

Reactivity

Reactivity: No data available.

Chemical stability

Stability: Stable under normal temperature conditions.
Curing time: 12 hours

Possibility of hazardous reactions

Hazardous Reactions: Reacts with alkalis and amines generating excessive heat.

Conditions to avoid

Conditions/materials to avoid: Heating, moisture, water and amines. Strong oxidizing substances, strong acids and strong bases.

Incompatible materials

Incompatible materials: Strong oxidizing substances, strong acids and strong bases.

Hazardous decomposition products

Hazardous decomposition products: By heating and fire, irritating vapors/gases may be formed.

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.

Reproductive Toxicity: Based on available data, the classification criteria are not met.

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: Not relevant at normal room temperatures. When heated, irritating vapors may be formed.

Ingestion: Irritating. May cause nausea, stomach pain and vomiting.

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12. ECOLOGICAL INFORMATION

Ecotoxicity

Ecotoxicity: Toxic to aquatic life with long lasting effects.

Persistence and degradability

Degradability: This product is expected to be heavily biodegradable.

Bioaccumulative potential

Bioaccumulative potential: The product contains potentially bio-accumulating substances.
log Pow: 3-5

Mobility in soil

Mobility: Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (Koc: >5000)
Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700) (Koc: 500-2000)

Results of PBT and vPvB assessment

PBT/vPvB: This product does not contain any PBT or vPvB substances.

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

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

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14. TRANSPORT INFORMATION

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

UN number

UN-No: 3082

UN proper shipping name

Proper Shipping Name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.
(Epoxy Resin)

Additional IMDG information:

EmS: F-A, S-F

MFAG: 1

Transport hazard class(es)

Class: 9

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

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15. REGULATORY INFORMATION

Safety, health and environmental regulations specific to the product

Special provisions: 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.
TSCA: All chemicals included in the product are TSCA listed.
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.
Department of Justice. Canadian Environmental Protection Act 1999 (CEPA), 1999, c. 33, with amendments.
British Columbia: Occupational Exposure Limits for Chemical Substances, Occupational Health and Safety Regulation 296/97, with amendments (2015).
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).
U.S. Department of health and human services: 2011 - Report on Carcinogens - 12th Edition.
International Agency for Research on Cancer (IARC): IARC Monographs on the Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health Organization.

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, 6, 9.
The (*) indicates the changes made with respect to the previous version.

Approved by DHI.



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.
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