

SAFETY DATA SHEET



Product name:	SPECIFIX RESIN	Page:	1/10
Revision Date:	2015-01-07	Print date:	2015-01-07
Document No.:	M0073	SDS-ID:	GB-EN/15.0

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

1.1. Product identifier

Product name: SPECIFIX RESIN
Cat. No. 40200051, 40200048, 40200049

Container size: 1 l

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

Application: For embedding and impregnation of materialographic specimens

1.3. 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 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:
Chemical.info@struers.dk

1.4. Emergency telephone number

Emergency telephone: +45 44 600 800
(Only during office hours)

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

The product is classified:

67/548/EEC / 1999/45/EC: R43 Xi;R36/38 N;R51/53

GHS/CLP: Skin Irrit. 2;H315 - Eye Irrit. 2;H319 - Skin Sens. 1;H317 - Aquatic Chronic 2;H411

2.2. Label elements



Warning

Contains:

Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)

Reaction product: bisphenol-F-glycidyl ether, Epoxy resin (number average molecular weight < 700)

1,6-Hexandiol-diglycidylether

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.

2.3. Other hazards

PBT/vPvB:

Not relevant.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: epoxy resin 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>
30-60	25068-38-6	500-033-5	01-2119456619-26-xxxx	Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	R43 Xi;R36/38 N;R51-53	
10-30	28064-14-4	-	-	Reaction product: bisphenol-F-glycidyl ether, Epoxy resin (number average molecular weight < 700)	R43 Xi;R36/38 N;R51-53	
10-30	16096-31-4	240-260-4	-	1,6-Hexandiol-diglycidylether	R43 Xi;R36/38 R52-53	
0,1-<1	4420-74-0	224-588-5	-	3-Trimethoxysilylpropane-1-thiol	Xn;R21/22 N;R51-53	

GHS/CLP:

<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>
30-60	25068-38-6	500-033-5	01-2119456619-26-xxxx	Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411	
10-30	28064-14-4	-	-	Reaction product: bisphenol-F-glycidyl ether, Epoxy resin (number average molecular weight < 700)	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 2;H411	
10-30	16096-31-4	240-260-4	-	1,6-Hexandiol-diglycidylether	Eye Irrit. 2;H319 Skin Irrit. 2;H315 Skin Sens. 1;H317 Aquatic Chronic 3;H412	
0,1-<1	4420-74-0	224-588-5	-	3-Trimethoxysilylpropane-1-thiol	Acute Tox. 4;H312 Acute Tox. 4;H302 Aquatic Chronic 2;H411	

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

4.1. Description of first aid measures

<u>Inhalation:</u>	Move injured person into fresh air and keep person calm under observation. If uncomfortable: Seek hospital and bring these instructions.
<u>Skin contact:</u>	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.
<u>Eye contact:</u>	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 these instructions.
<u>Ingestion:</u>	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.

4.2. Most important symptoms and effects, both acute and delayed

Symptoms/effects: See section 11 for more detailed information on health effects and symptoms.

4.3. Indication of any immediate medical attention and special treatment needed

Medical attention/treatments: Not known.

SECTION 5: FIREFIGHTING MEASURES

5.1. Extinguishing media

Extinguishing media: Extinguish with foam, carbon dioxide, dry powder or water fog.

5.2. Special hazards arising from the substance or mixture

Specific hazards: When heated and in case of fire, irritating vapours/gases may be formed.

5.3. 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

6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Avoid contact with skin and eyes.

6.2. Environmental precautions

Environmental precautions: Do not discharge into drains, water courses or onto the ground.

6.3. Methods and material for containment and cleaning up

Methods for cleaning up: Absorb spillage with suitable absorbent material.

6.4. 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

7.1. Precautions for safe handling

Safe handling advice: Avoid contact with skin and eyes. Good personal hygiene is necessary. Wash hands and contaminated areas with water and soap before leaving the work site. Observe good chemical hygiene practices.

Technical measures: Work practice should minimise 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.

7.2. 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 oxidising agents.

7.3. Specific end use(s)

Specific use(s): Not relevant.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

8.1. Control parameters

No occupational exposure limit assigned.

8.2. Exposure controls

Engineering measures: Mix and prepare in a place with efficient exhaust ventilation. An eye wash bottle must be available at the work site.

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 air-supplied full-mask.

Hand protection: Wear protective gloves. Neoprene 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.

Eye protection: Wear goggles/face shield.

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

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.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<u>Appearance:</u>	Colourless-pale yellow liquid.
<u>Odour:</u>	slight odour
<u>pH:</u>	Not available.
<u>Boiling point:</u>	Not available.
<u>Flash point:</u>	149°C
<u>Explosion limits:</u>	Not available.
<u>Vapour pressure:</u>	<0,01 Pa
<u>Relative density:</u>	1,15
<u>Solubility:</u>	Not available.

9.2. Other information

<u>Other data:</u>	Volatile Organic Compound (VOC): 0 g/l
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SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

<u>Reactivity:</u>	None known.
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10.2. Chemical stability

<u>Stability:</u>	Stable under normal temperature conditions.
<u>Curing time:</u>	SPECIFIX-20: 8 hours
	SPECIFIX-40: 3.5 hours (40-60 °C)

10.3. Possibility of hazardous reactions

<u>Hazardous Reactions:</u>	None known.
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10.4. Conditions to avoid

<u>Conditions/materials to avoid:</u>	Heating. Strong oxidising substances, strong acids and strong bases.
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10.5. Incompatible materials

<u>Incompatible materials:</u>	None known.
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10.6. Hazardous decomposition products

<u>Hazardous decomposition products:</u>	When heated and in case of fire, irritating vapours/gases may be formed.
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SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

<u>Inhalation:</u>	Not relevant at normal room temperatures. When heated, irritating vapours may be formed.
<u>Skin contact:</u>	Irritating and may cause redness, itching and small vesicles. Risk of sensitisation to epoxy compounds.
<u>Eye contact:</u>	Causes serious eye irritation.
<u>Ingestion:</u>	Irritating. May cause nausea, stomach pain and vomiting.
<u>Specific effects:</u>	Risk of sensitisation to epoxy compounds.

SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

<u>Ecotoxicity:</u>	Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
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12.2. Persistence and degradability

<u>Degradability:</u>	This product is expected to be not readily biodegradable.
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12.3. Bioaccumulative potential

<u>Bioaccumulative potential:</u>	No data available on bioaccumulation.
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12.4. Mobility in soil

<u>Mobility:</u>	No data available.
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12.5. Results of PBT and vPvB assessment

<u>PBT/vPvB:</u>	Not relevant.
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12.6. Other adverse effects

<u>Other adverse effects:</u>	None known.
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SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Dispose of collected dust according to agreement with local authorities. Waste is classified as hazardous waste. Note that fully cured material is not considered as hazardous waste.

<u>Waste from residues:</u>	16 05 08
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SECTION 14: TRANSPORT INFORMATION

14.1. UN number

UN-No: 3082

14.2. 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

14.3. Transport hazard class(es)

Class: 9

14.4. Packing group

PG: III

14.5. Environmental hazards

Marine pollutant: Yes.

Environmentally Hazardous substance: Yes.

14.6. Special precautions for user

Special precautions: None known.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

Transport in bulk: Not relevant.

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SECTION 15: REGULATORY INFORMATION

15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

<u>Special provisions:</u>	As a general rule, persons under 18 years of age are not allowed to work with this product. Users must be carefully instructed in the proper work procedure, the dangerous properties of the product and the necessary safety instructions.
<u>National regulation:</u>	<p>Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.</p> <p>Regulation (EC) No 1272/2008 of the European Parliament and of the Council of 16 December 2008 on classification, labelling and packaging of substances and mixtures, amending and repealing Directives 67/548/EEC and 1999/45/EC, and amending Regulation (EC) No 1907/2006 with amendments.</p> <p>The Chemicals (Hazard Information and Packaging for Supply) Regulations 2009 (S.I 2009 No. 716).</p> <p>The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.</p> <p>The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), with amendments.</p> <p>The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).</p>

15.2. Chemical Safety Assessment

<u>CSA status:</u>	Not relevant.
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SECTION 16: OTHER INFORMATION

For restrictions on use see section 15.

The following sections contain revisions or new statements: -

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

Approved by DHI.

Allan Vorup

Additional information: Classification according to Regulation (EC) No. 1272/2008:
Calculation method.

Wording of

R-phrases/H-statements:

R21/22	Harmful in contact with skin and if swallowed.
R36/38	Irritating to eyes and skin.
R43	May cause sensitisation by skin contact.
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.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
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.
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.