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

Product identifier

Product name: SPECIFIX RESIN

Cat. No. 40200051, 40200049 (*)

Container size: 1 l

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

Application: For embedding and impregnation of materialographic specimens

<u>Uses advised against:</u> No specific uses advised against are identified.

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: DHI

safety data sheet authoring: 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

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SECTION 2: HAZARDS IDENTIFICATION

Classification of the substance or mixture

OSHA 2012: Skin Irritant Category 2

Eye irritant Category 2A 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.

P102 Keep out of reach of children.

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.

P501 Dispose of contents/container in accordance with local regulations.

Other hazards

PBT/vPvB: No information available.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

Mixtures

The product contains: epoxy resin and additives.

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OSHA 2012:

<u>%:</u>	CAS-No.:	EC No.:	REACH Reg. No:	Chemical name:	Hazard classification:	Notes:
50-<75	25068-38-6	500-033-5	01-2119456619- 26-xxxx	Reaction product: bisphenol- A-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	Eye irritant Category 2A Skin Irritant Category 2 Skin Sensitizer Category 1 Aquatic Chronic Toxicity Category 2	
25-<35	9003-36-5	500-006-8	01-2119454392- 40-xxxx	Reaction product: bisphenol- F-(epichlorhydrin), epoxy resin (number average molecular weight <= 700)	Skin Irritant Category 2 Skin Sensitizer Category 1 Aquatic Chronic Toxicity Category 2	
20-<25	16096-31-4	240-260-4	01-2119463471- 41-xxxx	1,6-Hexandiol-diglycidylether	Eye irritant Category 2A Skin Irritant Category 2 Skin Sensitizer Category 1 Aquatic Chronic Toxicity Category 3	
0,1-<1	4420-74-0	224-588-5	01-2120763539- 41-0001	3-Trimethoxysilylpropane-1-thiol	Acute Oral Toxicity Category 4 Acute Dermal Toxicity Category 4 Skin Sensitizer Category 1B Aquatic Chronic Toxicity Category 2	

SECTION 4: FIRST AID MEASURES

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.

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

<u>Symptoms/effects:</u> 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 foam, carbon dioxide, dry powder or water fog.

Special hazards arising from the substance or mixture

<u>Specific hazards:</u> When heated and in case of fire, irritating vapors/gases may be formed.

Advice for firefighters

Protective equipment for fire- Selection of respiratory protection for fire fighting: follow the general fire

<u>fighters:</u> precautions indicated in the workplace.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

For non-emergency Avoid contact with skin and eyes. For personal protection, see section 8.

personnel:

<u>For emergency responders:</u> No specific recommendations. For personal protection, see section 8.

Environmental precautions

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

precautions:

Methods and material for containment and cleaning up

Spill Cleanup Methods: Absorb spillage with suitable 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

<u>Safe handling advice:</u> 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 minimize contact. Technical aids: Use disposable

equipment (rags, brushes, spatulas, putty knives, etc.), if possible.

<u>Technical precautions:</u> 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 No special precautions.

storage:

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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SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

No occupational exposure limit assigned.

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.

<u>Personal protection:</u> 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 air-supplied full-mask.

<u>Hand protection:</u> Wear protective gloves. Butyl rubber 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

Information on basic physical and chemical properties

Appearance: Colorless-pale yellow liquid.

Odor: slight odor Not available. Odor threshold: Not available. <u>pH:</u> Melting point: Not available. **Boiling point:** Not available.

Flash point: 300.2°F

Evaporation rate: Not available. Flammability (solid, gas): Not available. **Explosion limits:** Not available. <0.01 Pa Vapor pressure: Vapor density: Not available.

1.15 Relative density:

Solubility: Not available. Partition coefficient (n-Not available.

octanol/water):

Auto-ignition Not available.

temperature (°F):

Not available. **Decomposition**

temperature (°F):

Viscosity: Not available. Explosive properties: Not available. Oxidizing properties: Not available.

Other information

Other data: Volatile Organic Compound (VOC): 0 g/l

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SECTION 10: STABILITY AND REACTIVITY

Reactivity

Reactivity: None under normal conditions.

Chemical stability

Stable under normal temperature conditions.

Curing time:

SPECIFIX-20: 8 hours

SPECIFIX-40: 3.5 hours (40-60 °C)

Possibility of hazardous reactions

Hazardous Reactions: None under normal conditions.

Conditions to avoid

Conditions/materials to avoid: No information available.

Incompatible materials

Incompatible materials: No information available.

Hazardous decomposition products

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

products:

SECTION 11: TOXICOLOGICAL INFORMATION

Information on toxicological effects

Acute Toxicity (Oral):

Acute Toxicity (Dermal):

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

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.

<u>Serious eye damage/irritation:</u> Causes serious eye irritation.

Respiratory or skin

May cause an allergic skin reaction.

sensitization:

<u>Germ cell mutagenicity:</u> Based on available data, the classification criteria are not met.

<u>Carcinogenicity:</u> Based on available data, the classification criteria are not met.

National Toxicology Program (NTP): No.

I.A.R.C. Monographs: No.

OSHA: No.

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.

<u>Specific effects:</u> None known.

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SECTION 12: ECOLOGICAL INFORMATION

Toxicity

<u>Ecotoxicity:</u> Toxic to aquatic life with long lasting effects.

Reaction product: bisphenol-A-(epichlorhydrin), epoxy resin (number average

molecular weight <= 700): 1.3 (LC50 96 hours, fish, mg/l) (*)

Reaction product: bisphenol-F-(epichlorhydrin), epoxy resin (number average

molecular weight <= 700): 2.54 (LC50 96 hours, fish, mg/l)

Persistence and degradability

<u>Degradability:</u> This product is expected to be heavily 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: No information available.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste treatment methods

<u>Waste from residues:</u> Dispose of waste and residues in accordance with local authority requirements.

<u>Contaminated packaging:</u> 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

<u>UN-No:</u> 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:

Environmental hazards

Marine pollutant: Yes.
Environmentally Hazardous Yes.

substance:

Special precautions for user

Special precautions: None known.

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

<u>Transport in bulk:</u> Not relevant.

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SECTION 15: REGULATORY INFORMATION

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

<u>Special provisions:</u> State and local regulation may apply.

TSCA: Listed.

NFPA Rating: Health:2 Fire:1 Reactivity:0 Other:-

SARA Section 302: No. SARA Section 304: No. SARA Section 313: No.

SARA (311/312) Hazard categories: Yes.

<u>National regulation:</u> The following lists have been checked:

Threshold Limit Values (2019), 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.

The Code of Federal Regulation. Title 40, part 372.65. Toxic Chemical Release

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

Evaluation of Carcinogenic Risks to Humans. Lyon: IARC, World Health

Organization.

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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: 1.

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

Approved by DHI.

Allan Vorup

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. www.dhigroup.com.