

Product name:	EPOFIX RESIN	Page:	1/11
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SECTION 1: IDENTIFICATION OF THE SUBSTANCE/MIXTURE AND OF THE COMPANY/UNDERTAKING

1.1. Product identifier				
Product name:	EPOFIX RESIN			
	Cat. No. 40200030, 40200029			
Container size:	11			
1.2. Relevant identified uses of	f the substance or mixture and uses advised against			
Application:	For embedding and impregnation of materialographic specimens (*)			
Uses advised against:	No specific uses advised against are identified.			
1.3. Details of the supplier of t	he safety data sheet			
<u>Supplier:</u>	Struers ApS 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: struers@struers.dk			
1.4. Emergency telephone nur	1.4. Emergency telephone number			
	NHS: 111			

+45 44 600 800 (Only during office hours)

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SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

<u>CLP:</u>	Skin Irrit. 2;H315
	Eye Irrit. 2;H319
	Skin Sens. 1B;H317 (*)
	Aquatic Chronic 2;H411

2.2. Label elements

(*)



	Warning
<u>Contains:</u>	Bis[4-(2,3-epoxypropoxy)phenyl]propane Oxirane, mono[(C12-14-alkyloxy)methyl] derivs.
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	
<u>PBT/vPvB:</u>	Not Classified as PBT/vPvB by current EU criteria.

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.2. Mixtures

The product contains: epoxy resin. (*)

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CLP:						
<u>%:</u>	CAS-No.:	EC No.:	<u>REACH Reg.</u> <u>No:</u>	Chemical name:	Hazard classification:	Notes:
60-90	1675-54-3	216-823-5	01-2119456619- 26-xxxx	Bis[4-(2,3- epoxypropoxy)phenyl]propane	Skin Irrit. 2;H315 Eye Irrit. 2;H319 Skin Sens. 1B;H317 Aquatic Chronic 2;H411	
10-40	68609-97-2	271-846-8	01-2119485289- 22-xxxx	Oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	Skin Irrit. 2;H315 Skin Sens. 1B;H317	
Referen	nces:	TI	ne full text for all h	azard statements is display	ed in section 16.	
SECTI	ON 4: FIRST	AID MEA	SURES			
4.1. Des	scription of first	aid measu	<u>ires</u>			
<u>Inhalatio</u>	<u>on:</u>			n into fresh air and keep per k hospital and bring these ir		ation. If
<u>Skin co</u>	in contact: In case of eczema or other skin disorders: Seek medical attention and bring these instructions.					
<u>Eye cor</u>	<u>ntact:</u>	CC	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.			
<u>Ingestio</u>	on:	ol	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.			
<u>4.2. Mo</u>	st important sy	mptoms ar	nd effects, both ac	ute and delayed		
Sympto	oms/effects:	S	ee section 11 for r	nore detailed information or	health effects and syn	nptoms.
4.3. Ind	lication of any in			and special treatment neede		
<u>Medical</u>	l attention/treat	<u>ments:</u> Ti	eat symptomatica	lly.		
SECTI	ON 5: FIREFI	GHTING	MEASURES			
<u>5.1. Ext</u>	tinguishing med	lia				
<u>Extingu</u>	ishing media:	U	-	n, carbon dioxide, dry powd shing media: Do not use wa	-	er, as this
<u>5.2. Spe</u>	ecial hazards a	rising from	the substance or	<u>mixture</u>		
Specific	<u>c hazards:</u>	V	hen heated and ir	n case of fire, irritating vapo	urs/gases may be form	ed.
<u>5.3. Adv</u>	vice for firefight	ers				
<u>Protecti</u> fighters:	ive equipment f <u>:</u>			tory protection for fire fightir ed in the workplace.	ig: follow the general fir	e

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SECTION 6: ACCIDENTAL RELEASE MEASURES

6.1. Personal precautions, protective equipment and emergency procedures			
For non-emergency personnel:	Avoid inhalation of vapours and aerosols and contact with skin and eyes. For personal protection, see section 8.		
For emergency responders:	No specific recommendations. For personal protection, see section 8.		
6.2. Environmental precautions			
Environmental precautions:	Avoid 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. Deference to other sections			

6.4. Reference to other sections

<u>References:</u> For personal protection, see section 8. For waste disposal, see section 13.

SECTION 7: HANDLING AND STORAGE

7.1. Precautions for safe handling

<u>Safe handling advice:</u>	Observe good chemical hygiene practices. Avoid inhalation of vapours 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 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 storag	e, 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)	

<u>Specific use(s):</u> No information available.

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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 and work of brief duration, use suitable respiratory equipment. It is recommended to use respiratory equipment with combination filter, type ABEK
Hand protection:	Use disposable gloves protecting against epoxy along with cotton gloves closest to the skin. 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:	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.
Environmental Exposure Controls:	Not available.

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SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

Form:	Liquid.
<u>Colour:</u>	Colourless to pale yellow.
<u>Odour:</u>	Mild.
Odour threshold:	Not available.
<u>pH:</u>	Not available.
Melting point:	Not available.
Boiling point:	>148°C
Flash point:	176,7 - 190,6°C
Evaporation rate:	Not available.
Flammability (solid, gas):	Not available.
Explosive limits	Not available.
Vapour pressure:	0,06 mmHg (21°C)
Vapour density:	Not available.
Relative density:	1,11 - 1,14
<u>Solubility:</u>	Insoluble in water.
Partition coefficient (n- octanol/water):	Not available.
<u>Auto-ignition</u> temperature (°C):	Not available.
Decomposition temperature (°C):	Not available.
<u>Viscosity:</u>	600 - 800 cP (25°C)
Explosive properties:	Not available.
Oxidising properties:	Not available.
9.2. Other information	
Other data:	Volatile Organic Compound (VOC): 0 g/l

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SECTION 10: STABILITY	AND REACTIVITY	
10.1. Reactivity		
Reactivity:	No data available.	
10.2. Chemical stability		
<u>Stability:</u>	Stable under normal temperature conditions. Curing time: 12 hours	
10.3. Possibility of hazardous	reactions	
Hazardous Reactions:	Reacts with alkalis and amines generating excessive heat.	
10.4. Conditions to avoid		
Conditions/materials to avoid:	Heating, moisture, water and amines. Strong oxidising substances, strong acids and strong bases.	
10.5. Incompatible materials		
Incompatible materials:	Strong oxidising substances, strong acids and strong bases.	
10.6. Hazardous decomposition products		
Hazardous decomposition products:	When heated and in case of fire, irritating vapours/gases may be formed.	
SECTION 11. TOXICOLOG		

SECTION 11: TOXICOLOGICAL INFORMATION

	11.1. Information	on	toxicological	effects
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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.
<u>Respiratory or skin</u> 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.
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 vapours may be formed.
Ingestion:	Irritating. May cause nausea, stomach pain and vomiting.

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SECTION 12: ECOLOGIC	AL INFORMATION	
<u>12.1. Toxicity</u>		
Ecotoxicity:	Toxic to aquatic life with long lasting effects.	
	Bis[4-(2,3-epoxypropoxy)phenyl]propane: LC50 (Oncorhynchus mykiss, 96 h): 2 mg/l (*)	
12.2. Persistence and degrac	lability	
<u>Degradability:</u>	This product is expected to be not readily biodegradable.	
12.3. Bioaccumulative potential		
Bioaccumulative potential:	The product contains potentially bioaccumulating substances. log Pow 3-5	
<u>12.4. Mobility in soil</u>		
Mobility:	Oxirane, mono[(C12-14-alkyloxy)methyl] derivs. (Koc: >5000) Bis[4-(2,3-epoxypropoxy)phenyl]propane (Koc: 500-2000)	
<u>12.5. Results of PBT and vPv</u>	/B assessment	
<u>PBT/vPvB:</u>	This product does not contain any PBT or vPvB substances.	
12.6. Other adverse effects		
Other adverse effects:	No information available.	

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Waste from residues:	Dispose of waste and residues in accordance with local authority requirements. Waste is classified as hazardous waste. Note that fully cured material is not considered as hazardous waste.
	EWC-code: 16 05 08
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, ADR/RID).

<u>14.1. UN number</u>		
<u>UN-No:</u>	3082	
14.2. UN proper shipping nan	ne	
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)		
<u>Class:</u>	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 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

Special provisions:	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.
National regulation:	 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, with amendments. 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. The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments. EH40/2005, Workplace exposure limits 2005, with amendments. The Management of Health and Safety at Work Regulations 1999 (SI 1999 No. 3242), with amendments. The List of Wastes (England) (Amendment) Regulations 2005. (SI 2005 No. 895).

15.2. Chemical Safety Assessment

CSA status:

No chemical safety assessment has been carried out.

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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, 2, 3, 8, 12. The (*) indicates the changes made with respect to the previous version.

Approved by DHI.

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Abbreviations and acronyms	PBT = Persistent, Bioaccumulative and Toxic.	
used in the safety data sheet:	vPvB = very Persistent and very Bioaccumulative.	
Additional information:	Classification according to Regulation (EC) No. 1272/2008:	
	Calculation method.	
Wording of H-statements:		
	Occurrent all in instantions	
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.	

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.