on use

according to Regulation (EC) No. 1907/2006



GlassCast 10/50 Epoxy Casting Resin

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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier Trade name UFI	:	GlassCast 10/50 Epoxy Resin 3RT1-H94T-V007-8VEM
1.2 Relevant identified uses of t Type of Application (Use)		substance or mixture and uses advised against Electrical Insulation
Recommended restrictions	:	Reserved for industrial and professional use.

1.3 Details of the supplier of the safety data sheet

Company name	: Easy Composites Ltd
	Unit 39, Park Hall Business Village
	Longton, Stoke on Trent
	Staffordshire
	ST3 5XA
	United Kingdom
Tel	: +44 (0) 1782 454499
Email:	sales@easycomposites.com
1.4 Emergency telephone number	+44 (0) 1782 454499
	(office hours only)

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

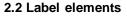
Skin irritation, Category 2 Serious eye damage, Category 1 Skin sensitisation, Category 1 Reproductive toxicity, Category 1B Long-term (chronic) aquatic hazard, Category 2

H315: Causes skin irritation. H318: Causes serious eye damage.

H317: May cause an allergic skin reaction.

H360F: May damage fertility.

H411: Toxic to aquatic life with long lasting effects.



Labelling (REGULATION (EC) No 1272/2008) Hazard pictograms

:

Signal word

Danger



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Hazard statements	F F	 Causes skin irritation. May cause an allergic skin reaction. Causes serious eye damage. May damage fertility. Toxic to aquatic life with long lasting effects.
Precautionary statemen	P P P	 revention: 201 Obtain special instructions before use. 273 Avoid release to the environment. 280 Wear protective gloves/ protective clothing/ eye protection/ face protection/ hearing protection.
	P w s P a	Aesponse: 305 + P351 + P338 + P310 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if pre- ent and easy to do. Continue rinsing. Immediately call a OISON CENTER/ doctor. 308 + P313 IF exposed or concerned: Get medical advice/ ttention. 391 Collect spillage.

Hazardous components which must be listed on the label:

bis-[4-(2,3-epoxipropoxi)phenyl]propane

oxirane, mono[(C12-14-alkyloxy)methyl] derivs.

1,4-bis(2,3 epoxypropoxy)butane

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl Sebacate

Additional Labelling

EUH205 Contains epoxy constituents. May produce an allergic reaction.

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.



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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature

: Modified epoxy resin

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
	Index-No. Registration number		()0 (0,0)
bis-[4-(2,3- epoxipropoxi)phenyl]propane	1675-54-3 216-823-5 603-073-00-2 01-2119456619-26	Skin Irrit. 2; H315 Eye Irrit. 2; H319 Skin Sens. 1; H317 Aquatic Chronic 2; H411	>= 50 - <= 100
		specific concentration limit Eye Irrit. 2; H319 >= 5 % Skin Irrit. 2; H315 >= 5 % Eye Irrit. 2; H319 >= 5 % Skin Irrit. 2; H315 >= 5 %	
oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	68609-97-2 271-846-8 603-103-00-4 01-2119485289-22	Skin Irrit. 2; H315 Skin Sens. 1; H317 Repr. 1B; H360F	>= 10 - < 12,5
1,4-bis(2,3 epoxypropoxy)butane	2425-79-8 219-371-7 603-072-00-7 01-2119494060-45	Acute Tox. 4; H302 Acute Tox. 4; H312 Acute Tox. 4; H312 Eye Dam. 1; H318 Skin Irrit. 2; H315 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>= 5 - < 7
Reaction mass of bis(1,2,2,6,6- pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl- 4-piperidyl Sebacate	1065336-91-5 01-2119491304-40	Skin Sens. 1A; H317 Repr. 2; H361f Aquatic Acute 1; H400 Aquatic Chronic 1; H410	>= 0,1 - < 0,25
		M-Factor (Acute aquatic toxicity): 1	
		M-Factor (Chronic aquatic toxicity): 1	



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For explanation of	of abbreviations see section 16.		

SECTION 4: First aid measures

4.1 Description of first aid meas	ures
General advice	: Keep warm and in a quiet place. Show this safety data sheet to the doctor in attendance. Take off all contaminated clothing immediately.
lf inhaled	 Move to fresh air. Keep patient warm and at rest. If unconscious, place in recovery position and seek medical advice. If symptoms persist, call a physician. If breathing is irregular or stopped, administer artificial respiration.
In case of skin contact	 Wash off immediately with soap and plenty of water. Do NOT use solvents or thinners. If on clothes, remove clothes. If skin irritation persists, call a physician.
In case of eye contact	 Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If eye irritation persists, consult a specialist. If easy to do, remove contact lens, if worn.
If swallowed	 Keep at rest. Do not induce vomiting without medical advice. Keep respiratory tract clear. If symptoms persist, call a physician.
1 2 Most important symptoms a	nd effects, both acute and delayed
Symptoms	: irritant effects Redness sensitising effects
4.3 Indication of any immediate	medical attention and special treatment needed
Treatment	: The first aid procedure should be established in consultation with the doctor responsible for industrial medicine.
SECTION 5: Firefighting mean	sures
5.1 Extinguishing media Suitable extinguishing media	: Foam Sand Carbon dioxide (CO2) Water mist



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Unsuitable extinguishin media	g :	Water spray jet	
5.2 Special hazards arising	from th	e substance or mixtu	re
Specific hazards during fighting	fire- :	influence of heat.	ed containers can increase under the ers exposed to fire with water spray.
5.3 Advice for firefighters			
Special protective equip for firefighters	ment :	In the event of fire, w Use personal protect	vear self-contained breathing apparatus. tive equipment.
Further information	:	Use extinguishing me cumstances and the Immediately evacuat Prevent fire extinguis water or the ground v Fire residues and co	nd/or explosion do not breathe fumes. easures that are appropriate to local cir- surrounding environment. e personnel to safe areas. shing water from contaminating surface water system. ntaminated fire extinguishing water must cordance with local regulations.

SECTION 6: Accidental release measures

6.1 Personal precautions,	protective	equipment and emergency procedures
Personal precautions	:	Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.
6.2 Environmental precauti	ions	

Environmental precautions	:	Do not allow uncontrolled discharge of product into the envi- ronment. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.
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6.3 Methods and material for containment and cleaning up

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Contain spillage, and then collect with non-combustible ab- sorbent material, (e.g. sand, earth, diatomaceous earth, ver- miculite) and place in container for disposal according to local / national regulations (see section 13). Pick up and transfer to properly labelled containers.
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6.4 Reference to other sections

For personal protection see section 8.

SECTION 7: Handling and storage

7.1	Precautions for safe handling	1	
	Advice on safe handling		Provide sufficient air exchange and/or exhaust in work rooms. Avoid inhalation, ingestion and contact with skin and eyes. Wear personal protective equipment. Persons with a history of skin sensitisation problems or asth- ma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used.
	Advice on protection against fire and explosion	:	Keep away from open flames, hot surfaces and sources of ignition.
	Hygiene measures	:	Provide adequate ventilation. Wash hands and face before breaks and immediately after handling the product.
7.2	Conditions for safe storage, i	ncl	uding any incompatibilities
	Requirements for storage areas and containers	:	Keep containers tightly closed in a dry, cool and well- ventilated place. Keep in properly labelled containers.
	Advice on common storage	:	Keep away from oxidizing agents, strongly acid or alkaline materials and amines. Keep product and empty container away from heat and sources of ignition. Keep away from food and drink.
	Further information on stor- age stability	:	Stable at normal ambient temperature and pressure.
7.3	Specific end use(s)		
	Specific use(s)	:	Consult the technical guidelines for the use of this sub- stance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
bis-[4-(2,3- epox- ipropoxi)phenyl]propa ne	Workers	Skin contact	Acute systemic ef- fects, Long-term systemic effects	8,33 mg/kg
	Workers	Inhalation	Acute systemic ef- fects, Long-term local effects	12,25 mg/m3
	Consumers	Skin contact	Acute systemic ef-	3,571 mg/kg

according to Regulation (EC) No. 1907/2006



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			fects, Long-term systemic effects	
	Consumers	Ingestion	Acute systemic ef- fects, Long-term systemic effects	0,75 mg/kg
oxirane, mono[(C12- 14-alkyloxy)methyl] derivs.	Workers	Skin contact	Long-term systemic effects	3,9 mg/kg
	Workers	Inhalation	Long-term systemic	13,8 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
bis-[4-(2,3-	Fresh water	0,006 mg/l
epoxipropoxi)phenyl]propane		
	Marine water	0,0006 mg/l
	Intermittent releases	0,018 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	0,996 mg/kg
	Marine sediment	0,0996 mg/kg
	Soil	0,196 mg/kg
oxirane, mono[(C12-14- alkyloxy)methyl] derivs.	Sewage treatment plant	10 mg/l
	Fresh water	0,0072 mg/l
	Marine water	0,00072 mg/l
	Fresh water sediment	66,77 mg/kg
	Marine sediment	6,677 mg/kg
	Soil	80,12 mg/kg

8.2 Exposure controls

Engineering measures

Effective exhaust ventilation system effective ventilation in all processing areas

Personal protective equipment					
Eye protection	:	Do not wear contact lenses. Safety glasses with side-shields conforming to EN166 Ensure that eyewash stations and safety showers are close to the workstation location.			
Hand protection					
Material	:	Protective gloves complying with EN 374.			
Material	:	butyl-rubber			
Break through time	:	> 480 min			
Glove thickness	:	0,35 mm			
Material	:	Neoprene			
Break through time	:	> 480 min			
Glove thickness	:	0,35 mm			
Material	:	Nitrile rubber			
Break through time	:	> 480 min			
Glove thickness	:	0,35 mm			



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Remarks Skin and body protectio Respiratory protection	Please obse breakthrough gloves. Also tions under v cuts, abrasio depends am and the type each case. T discussed w on : Protective su : Use respirato tilation is pro exposures al In the case of proved filter. Equipment s Apply techni exposure lim This should l	bry protection unless adequate local exhaust ven- vided or exposure assessment demonstrates that re within recommended exposure guidelines. If vapour formation use a respirator with an ap- hould conform to EN 14387 cal measures to comply with the occupational
Protective measures	: Avoid contac	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state		liquid
Colour	÷	colourless
Odour	:	slight
Odour Threshold		not determined
Melting point/freezing point	:	Not applicable
Boiling point/boiling range	:	> 200 °C
Upper explosion limit / Upper flammability limit	:	Not applicable
Lower explosion limit / Lower flammability limit	:	Not applicable
Flash point	:	150 °C
Auto-ignition temperature	:	Not applicable
Decomposition temperature	:	No data available
рН	:	4 - 6 Concentration: 1 %
Viscosity Viscosity, dynamic	:	700 - 1.000 mPa.s (25

°C)



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Viscosity, kinematio	c : not determine	ed
Solubility(ies) Water solubility Solubility in other se	: not determine olvents : not determine	
Partition coefficient: n- octanol/water	- : No data avail	able
Vapour pressure	: not determine	d
Density	: 1,12 g/cm3 (2	25 °C)
Bulk density	: not determine	d
Relative vapour densit	ty : not determine	ed
Particle characteristics Particle size	: Not applicabl	e
9.2 Other information		
Explosives	: Not applicabl	e
Oxidizing properties	: Not applicabl	e
Self-ignition	: Not applicabl	e
Evaporation rate	: not determine	ed
Surface tension	: not determine	ed
Sublimation point	: Not applicabl	e

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Reacts with the following substances: Bases Strong oxidizing agents Avoid amines.

10.4 Conditions to avoid

Conditions to avoid	:	No decomposition if used as directed.
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10.5 Incompatible materials



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Materials to avoid : Incompatible with oxidizing agents.

10.6 Hazardous decomposition products

This product may release the following: Carbon monoxide, carbon dioxide and unburned hydrocarbons (smoke).

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity	
Product:	
Acute oral toxicity :	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method
Acute inhalation toxicity :	Acute toxicity estimate: > 20 mg/l Exposure time: 4 h Test atmosphere: vapour Method: Calculation method
Acute dermal toxicity :	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method
Acute toxicity (other routes of : administration)	Remarks: No data available

Components:

Acute toxicity

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Acute oral toxicity	:	LD50 (Rat, female): > 2.000 mg/kg Method: OECD Test Guideline 420 GLP: yes
Acute dermal toxicity	:	LD50 (Rat, male and female): > 2.000 mg/kg Method: OECD Test Guideline 402 GLP: yes

Skin corrosion/irritation

Ρ	r	0	d	u	c	t:
_						

Remarks

: No data available

Components:

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Species	: Rabbit	
Exposure time	: 4 h	
Method	: OECD Test Guideline 404	
Result	: Skin irritation	
GLP	: yes	

according to Regulation (EC) No. 1907/2006



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Serious eye damage	leye irritation	
Product:		
Remarks	: No data availa	ble
Respiratory or skin	sensitisation	
Product:		
Remarks	: No data availa	ble
Components:		
	oxi)phenyl]propane:	
Test Type		.ymph Node assay (LLNA)
Species Method	: Mouse : OECD Test G	uideline 429
Result		nsitisation by skin contact.
GLP	: yes	,
Carcinogenicity		
Product:		
Remarks	: No data availa	ble
Reproductive toxicit	У	
Product:		
Effects on fertility	: Remarks: No	data available
Effects on foetal deve ment	elop- : Remarks: No	data available
STOT - single expos	ure	
Product:		
Remarks	: No data availa	ble
STOT - repeated exp	oosure	
Product:		
Remarks	: No data availa	ble
Repeated dose toxic	ity	
Product:		
Remarks	: No data availa	ble



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Aspiration toxicity

Components:

bis-[4-(2,3-epoxipropoxi)phenyl]propane: No aspiration toxicity classification

11.2 Information on other hazards

Endocrine disrupting properties

Product:

Assessment

: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Further information

Product:

Remarks

: No data available

SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available

Components:

bis-[4-(2,3-epoxipropoxi)phenyl]propane:

Toxicity to daphnia and other aquatic invertebrates	:	EC50 (Daphnia (water flea)): 1,7 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to daphnia and other aquatic invertebrates (Chron- ic toxicity)	:	NOEC: 0,3 mg/l Exposure time: 21 d Species: Daphnia magna (Water flea) Test Type: semi-static test Method: OECD Test Guideline 211 GLP: yes

Reaction mass of bis(1,2,2,6,6-pentamethyl-4-piperidyl) sebacate and methyl 1,2,2,6,6-pentamethyl-4-piperidyl Sebacate:

M-Factor (Acute aquatic tox- : 1



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icity)		
M-Factor (Chronic aqu toxicity)	uatic : 1	
12.2 Persistence and deg	radability	
Product:		
Biodegradability	: Remarks: No	data available
Physico-chemical rem ity	ovabil- : Remarks: No	data available
Components:		
bis-[4-(2,3-epoxiprop o Biodegradability	: Result: Not re	adily biodegradable. D Test Guideline 301F
12.3 Bioaccumulative pot	ential	
Product:		
Bioaccumulation	: Remarks: No	data available
Components:		
bis-[4-(2,3-epoxiprop		
Partition coefficient: n octanol/water	pH: 7,1	2 (25 °C) D Test Guideline 117
12.4 Mobility in soil No data available		
12.5 Results of PBT and	vPvB assessment	
Product:		
Assessment	to be either p	ce/mixture contains no components considered ersistent, bioaccumulative and toxic (PBT), or at and very bioaccumulative (vPvB) at levels of er.
12.6 Endocrine disrupting	g properties	
Product:		
Assessment	ered to have REACH Articl	e/mixture does not contain components consid- endocrine disrupting properties according to e 57(f) or Commission Delegated regulation 00 or Commission Regulation (EU) 2018/605 at 5 or higher.

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12.7 Other adverse effects		
<u>Product:</u> Additional ecological info mation		mental hazard cannot be excluded in the event of onal handling or disposal.
SECTION 13: Disposal co	nsiderations	
13.1 Waste treatment metho Product	: In accorda Container Do not dis	nce with local and national regulations. hazardous when empty. pose of with domestic refuse. waste streams during collection.
Contaminated packaging		tainers should be taken to an approved waste han- or recycling or disposal.
SECTION 14: Transport ir	formation	
14.1 UN number or ID numbe	er	
ADR/RID/ADN	: UN 3082	
IMDG	: UN 3082	
ΙΑΤΑ	: UN 3082	
14.2 UN proper shipping nar	ne	
ADR/RID/ADN	N.O.S.	MENTALLY HAZARDOUS SUBSTANCE, LIQUID,
IMDG	N.O.S.	MENTALLY HAZARDOUS SUBSTANCE, LIQUID, -epoxipropoxi)phenyl]propane)
ΙΑΤΑ		ntally hazardous substance, liquid, n.o.s. -epoxipropoxi)phenyl]propane)
14.3 Transport hazard class(es)	
ADR/RID/ADN	: 9	
IMDG	: 9	
ΙΑΤΑ	: 9	
14.4 Packing group		
ADR/RID/ADN Packing group Classification Code Hazard Identification Num Labels Tunnel restriction code Remarks	: 9 : -	se substances when carried in single or combina-



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	packaging single or in subject to a	gings containing a net quantity per single or inner of 5 I or less for liquids or having a net mass per ner packaging of 5 kg or less for solids, are not any other provisions of ADR provided the packag- he general provisions of 4.1.1.1, 4.1.1.2 and .1.1.8.
IMDG Packing group Labels EmS Code Remarks	IMDG: Mar packaging aging of 5 or inner pa any other p provided th 4.1.1.1, 4.1 pollutants a hazard clas	e segregation group - none ine pollutants packaged in single or combination s containing a net quantity per single or inner pack- or less for liquids or having a net mass per single ckaging of 5 kg or less for solids are not subject to provisions of this Code relevant to marine pollutants he packagings meet the general provisions of .1.2 and 4.1.1.4 to 4.1.1.8. In thecase of marine also meeting the criteria for inclusion in another as all provisions of this Code relevant to any addi- rds continue to apply.
IATA (Cargo) Packing instruction (cargo aircraft) Packing group Labels Remarks	nation pacl quantity pe or having a solids, are tions provie	ous e substances when transported in single or combi- kagings containing a net r single or inner packaging of 5 L or less far liquids net mass of 5 kg or less for not subject to any other provisions of these Regula- ded the packagings meet the ovisions of 5.0.2.4.1, 5.0.2.6.1.1 and 5.0.2.8.
IATA (Passenger) Packing instruction (passe ger aircraft) Packing instruction (LQ) Packing group Labels	n- : 964 : Y964 : III : Miscellaned	Dus
14.5 Environmental hazards		
ADR/RID/ADN Environmentally hazardou	s : yes	
IMDG Marine pollutant	: yes	
IATA (Cargo) Environmentally hazardou	s : yes	
14.6 Special precautions for Remarks	: The transp	ort of dangerous goods, including their loading and must be done by people who received the neces-



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sary training required by Modal Regulations.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	: Conditions of restriction for the fol- lowing entries should be considered: Number on list: 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	: Not applicable
Regulation (EC) No 1005/2009 on substances that deplete the ozone layer	: Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	: Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	: Not applicable
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors	
	: Not applicable
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	: Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors	: Not applicable
Seveso III: Directive 2012/18/EU of the Euro- E2 pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances.	ENVIRONMENTAL HAZARDS
Seveso III Directive (2012/18/EU) implemented E2 by Control of Major Accident Hazards Regula- tions 2015 (COMAH)	ENVIRONMENTAL HAZARDS
15.2 Chemical safety assessment	
Not applicable	



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SECTION 16: Other information

Full text of H-Statements

H302	: Harmful if swallowed.
H312	: Harmful in contact with skin.
H315	: Causes skin irritation.
H317	: May cause an allergic skin reaction.
H318	: Causes serious eye damage.
H319	: Causes serious eye irritation.
H332	: Harmful if inhaled.
H360F	: May damage fertility.
H361f	: Suspected of damaging fertility.
H400	: Very toxic to aquatic life.
H410	: Very toxic to aquatic life with long lasting effects.
H411	: Toxic to aquatic life with long lasting effects.
H412	: Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox. :	Acute toxicity
Aquatic Acute :	Short-term (acute) aquatic hazard
Aquatic Chronic :	Long-term (chronic) aquatic hazard
Eye Dam. :	Serious eye damage
Eye Irrit. :	Eye irritation
Repr. :	Reproductive toxicity
Skin Irrit. :	Skin irritation
Skin Sens. :	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AllC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association: IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level: NOELR - No Observable Effect Loading Rate: NZIOC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic substance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous



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Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI - Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice

Provide adequate information, instruction and training for operators.

Classification of the mixture:		Classification procedure:
Skin Irrit. 2	H315	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Repr. 1B	H360F	Calculation method
Aquatic Chronic 2	H411	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

GB / EN

according to Regulation (EC) No. 1907/2006



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SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1 Product identifier		
Trade name : UFI :	GlassCast 50 Epoxy Hardener SA32-495H-G00R-E0Q2	
1.2 Relevant identified uses of the s	substance or mixture and uses advised against	
Type of Application (Use) :	Epoxy Hardener	
Recommended restrictions : on use	Reserved for industrial and professional use.	
1.3 Details of the supplier of the safety data sheet Company name: Easy Composites Ltd		
	Unit 39, Park Hall Business Village	
	Longton, Stoke on Trent	
	Staffordshire	
	ST3 5XA	
	United Kingdom	
Tel:	+44 (0) 1782 454499	
Email:	sales@easycomposites.co.uk	
1.4 Emergency telephone number	+44 (0) 1782 454499	
	(office hours only)	
SECTION 2. Hazards identificati	00	

SECTION 2: Hazards identification

2.1 Classification of the substance or mixture

Classification (REGULATION (EC) No 1272/2008)

Skin corrosion, Sub-category 1B	H314: Causes severe skin burns and eye damage.
Serious eye damage, Category 1	H318: Causes serious eye damage.
Skin sensitisation, Category 1	H317: May cause an allergic skin reaction.
Long-term (chronic) aquatic hazard, Cat- egory 3	H412: Harmful to aquatic life with long lasting ef- fects.

2.2 Label elements

Labelling (REGULATION (EC) No 1272/2008)

according to Regulation (EC) No. 1907/2006



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Hazard pictograms	:		
Signal word	:	Danger	
Hazard statements	:	H317 May cause ar	e skin burns and eye damage. a allergic skin reaction. uatic life with long lasting effects.
Precautionary statemen	its :	P273 Avoid release	ng mist or vapours. to the environment. ve gloves/ protective clothing/ eye protec- nearing protection.
		ately all contaminated P304 + P340 + P310 air and keep comforta POISON CENTER/ do P305 + P351 + P338 with water for several	ble for breathing. Immediately call a octor. + P310 IF IN EYES: Rinse cautiously minutes. Remove contact lenses, if pre- Continue rinsing. Immediately call a

Hazardous components which must be listed on the label:

Poly[oxy(methyl-1,2-ethanediyl)], α -(2-aminomethylethyl)- ω -(2-aminomethylethoxy)-

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine

3-aminomethyl-3,5,5-trimethylcyclohexylamine

2.3 Other hazards

This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

Ecological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

Toxicological information: The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

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SECTION 3: Composition/information on ingredients

3.2 Mixtures

Chemical nature

: Aliphatic Amine

Components

Chemical name	CAS-No. EC-No.	Classification	Concentration (% w/w)
	Index-No. Registration number		(70 007 00)
Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2- aminomethylethoxy)-	9046-10-0 01-2119557899-12	Skin Corr. 1C; H314 Eye Dam. 1; H318 Aquatic Chronic 3; H412	>= 50 - <= 100
4,4'-Isopropylidenediphenol, oli- gomeric reaction products with 1- chloro-2,3-epoxypropane, reaction products with 3-aminomethyl- 3,5,5-trimethylcyclohexylamine	38294-64-3 500-101-4 01-2119965165-33- 0011	Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412	>= 20 - < 25
benzyl alcohol	100-51-6 202-859-9 603-057-00-5 01-2119492630-38	Acute Tox. 4; H302 Acute Tox. 4; H332 Eye Irrit. 2; H319	>= 10 - < 12,5
3-aminomethyl-3,5,5- trimethylcyclohexylamine	2855-13-2 220-666-8 612-067-00-9 01-2119514687-32	Acute Tox. 4; H302 Acute Tox. 4; H312 Skin Corr. 1B; H314 Eye Dam. 1; H318 Skin Sens. 1; H317 Aquatic Chronic 3; H412 specific concentration limit Skin Sens. 1A; H317	>= 7 - < 10
		Acute toxicity esti- mate Acute oral toxicity: 1.030 mg/kg	

For explanation of abbreviations see section 16.

SECTION 4: First aid measures

4.1 Description of first aid measures

General advice

: Show this safety data sheet to the doctor in attendance.



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		and in a quiet place. contaminated clothing immediately.
If inhaled	If unconscio advice. If symptoms	sh air. t warm and at rest. us, place in recovery position and seek medical persist, call a physician. is irregular or stopped, administer artificial respira-
In case of skin contact	Do NOT use If on clothes	mediately with soap and plenty of water. e solvents or thinners. , remove clothes. be treated by a physician.
In case of eye contact	for at least 1 If eye irritati	diately with plenty of water, also under the eyelids, 5 minutes. on persists, consult a specialist. o, remove contact lens, if worn.
If swallowed	lf a person v recovery po Call a physi	uce vomiting. vomits when lying on his back, place him in the sition. cian immediately. amounts of water to drink.
4.2 Most important sympton	ns and effects, both	acute and delayed
Symptoms	: Burn superficial b Redness Severe irrita	urning sensation tion
4.3 Indication of any immed Treatment	: The first aid	n and special treatment needed procedure should be established in consultation tor responsible for industrial medicine.
SECTION 5: Firefighting r	neasures	
5.1 Extinguishing media		
Suitable extinguishing me	edia : Carbon diox Foam Dry powder Water mist	ide (CO2)
Unsuitable extinguishing media	: None known	۱.
5.2 Special hazards arising	from the substance	or mixture
Specific hazards during fi fighting	re- : The pressur influence of	e in sealed containers can increase under the



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	Hazardous tions.	decomposition products formed under fire condi-
5.3 Advice for firefighters	5	
Special protective equ for firefighters		nt of fire, wear self-contained breathing apparatus. nal protective equipment.
Further information	Use exting cumstance Immediate Prevent fir	nt of fire and/or explosion do not breathe fumes. uishing measures that are appropriate to local cir- es and the surrounding environment. Iy evacuate personnel to safe areas. e extinguishing water from contaminating surface e ground water system.

SECTION 6: Accidental release measures

6.1 Personal precautions, protective equipment and emergency procedures

Personal precautions :	Refer to protective measures listed in sections 7 and 8. Evacuate personnel to safe areas. Use personal protective equipment. Ensure adequate ventilation. Inform the responsible authorities in case of gas leakage, or of entry into waterways, soil or drains.
------------------------	--

6.2 Environmental precautions

Environmental precautions	:	Do not allow uncontrolled discharge of product into the envi- ronment. Try to prevent the material from entering drains or water courses. Local authorities should be advised if significant spillages cannot be contained.

6.3 Methods and material for containment and cleaning up

:

Methods for cleaning up	:	Soak up with inert absorbent material (e.g. sand, silica gel, acid binder, universal binder, sawdust). Contain spillage, and then collect with non-combustible ab- sorbent material, (e.g. sand, earth, diatomaceous earth, ver- miculite) and place in container for disposal according to local / national regulations (see section 13). Pick up and transfer to properly labelled containers.
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6.4 Reference to other sections

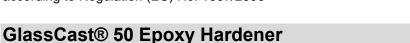
For personal protection see section 8.

SECTION 7: Handling and storage

7.1 Precautions for safe handling

- Advice on safe handling
- Provide sufficient air exchange and/or exhaust in work rooms. Do not breathe vapours or spray mist.

according to Regulation (EC) No. 1907/2006





Version **Revision Date:** Date of last issue: 18.11.2020 8.0 SDB GB 03.08.2022 Date of first issue: 27.12.2012 Avoid inhalation, ingestion and contact with skin and eyes. Wear personal protective equipment. Persons with a history of skin sensitisation problems or asthma, allergies, chronic or recurrent respiratory disease should not be employed in any process in which this mixture is being used. Advice on protection against Keep away from open flames, hot surfaces and sources of fire and explosion ignition. Hygiene measures Provide adequate ventilation. Wash hands and face before 2 breaks and immediately after handling the product. 7.2 Conditions for safe storage, including any incompatibilities Requirements for storage Keep containers tightly closed in a dry, cool and well-: areas and containers ventilated place. Keep in properly labelled containers. To maintain product quality, do not store in heat or direct sunlight. Further information on stor-Protect from moisture. age conditions Keep away from isocyanates. Advice on common storage : Do not store near acids. Keep away from oxidizing agents. Further information on stor-• Stable at normal ambient temperature and pressure. age stability 7.3 Specific end use(s) Specific use(s) Consult the technical guidelines for the use of this substance/mixture.

SECTION 8: Exposure controls/personal protection

8.1 Control parameters

Contains no substances with occupational exposure limit values. Contains no substances with occupational exposure limit values.

Derived No Effect Level (DNEL) according to Regulation (EC) No. 1907/2006:

Substance name	End Use	Exposure routes	Potential health ef- fects	Value
Poly[oxy(methyl-1,2- ethanediyl)], α-(2- aminomethylethyl)-ω- (2- aminomethylethoxy)-	Workers	Skin contact	Long-term systemic effects	2,5 mg/kg
	Workers	Skin contact	Long-term local ef- fects	0,623 mg/cm2
	Consumers	Skin contact	Long-term systemic effects	1,25 mg/kg
	Consumers	Skin contact	Long-term local ef-	0,311 mg/cm2

according to Regulation (EC) No. 1907/2006



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			fects	
	Consumers	Ingestion	Long-term systemic effects	0,04 mg/kg
benzyl alcohol	Workers	Inhalation	Short-term exposure, Systemic effects	450 mg/m3
	Workers	Inhalation	Long-term exposure, Systemic effects	90 mg/m3
	Workers	Skin contact	Short-term exposure, Systemic effects	47 mg/kg
	Workers	Skin contact	Long-term exposure, Systemic effects	9,5 mg/kg
	Consumers	Ingestion	Short-term exposure, Systemic effects	25 mg/kg
	Consumers	Ingestion	Long-term exposure, Systemic effects	5 mg/kg
	Consumers	Inhalation	Short-term exposure, Systemic effects	40,55 mg/m3
	Consumers	Inhalation	Long-term exposure, Systemic effects	8,11 mg/m3
	Consumers	Skin contact	Short-term exposure, Systemic effects	28,5 mg/kg
	Consumers	Skin contact	Long-term exposure, Systemic effects	5,7 mg/kg
4,4'- Isopropylidenediphe- nol, oligomeric reac- tion products with 1- chloro-2,3- epoxypropane, reac- tion products with 3- aminomethyl-3,5,5- trimethylcyclohexyla- mine	Workers	Inhalation	Long-term systemic effects	0,493 mg/m3
	Workers	Dermal	Long-term systemic effects	0,14 mg/kg
	Consumers	Inhalation	Long-term systemic effects	0,074 mg/m3
	Consumers	Dermal	Long-term systemic effects	0,05 mg/m3
	Consumers	Oral	Long-term systemic effects	0,05 mg/m3

Predicted No Effect Concentration (PNEC) according to Regulation (EC) No. 1907/2006:

Substance name	Environmental Compartment	Value
Poly[oxy(methyl-1,2-ethanediyl)], α-(2-aminomethylethyl)-ω-(2- aminomethylethoxy)-	Fresh water	0,015 mg/l
	Marine water	0,0143 mg/l
	Fresh water sediment	0,132 mg/kg
	Marine sediment	0,125 mg/kg
	Soil	0,0176 mg/kg
	Intermittent releases	0,15 mg/l
	Sewage treatment plant	7,5 mg/l
benzyl alcohol	Fresh water	1 mg/l

according to Regulation (EC) No. 1907/2006



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	Marine water	0,1 mg/l
	Fresh water sediment	5,27 mg/kg
	Marine sediment	0,527 mg/kg
	Soil	0,456 mg/kg
	Sewage treatment plant	39 mg/l
	Intermittent releases	2,3 mg/l
3-aminomethyl-3,5,5- trimethylcyclohexylamine	Fresh water	0,06 mg/l
	Marine water	0,006 mg/l
	Intermittent releases	0,23 mg/l
	Fresh water sediment	5,784 mg/kg
	Marine sediment	0,578 mg/kg
	Sewage treatment plant	3,18 mg/l
	Soil	1,121 mg/kg
4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reac- tion products with 3- aminomethyl-3,5,5- trimethylcyclohexylamine	Fresh water	0,011 mg/l
· · ·	Marine water	0,001 mg/l
	Sewage treatment plant	10 mg/l
	Fresh water sediment	4320 mg/kg
	Marine sediment	432 mg/kg
	Soil	864 mg/kg

8.2 Exposure controls

Engineering measures

Effective exhaust ventilation system effective ventilation in all processing areas

Personal protective equipment		
Eye protection	:	Safety glasses with side-shields conforming to EN166 Do not wear contact lenses. Ensure that eyewash stations and safety showers are close to the workstation location.
Hand protection		
Material	:	Protective gloves complying with EN 374.
Remarks	:	Nitrile rubber
Skin and body protection	:	Protective suit Recommended preventive skin protection
Respiratory protection	:	Use respirator when performing operations involving potential exposure to vapour of the product. The filter class for the respirator must be suitable for the max- imum expected contaminant concentration (gas/vapour/aerosol/particulates) that may arise when han- dling the product. If this concentration is exceeded, self- contained breathing apparatus must be used. Recommended Filter type: ABEK-filter



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	Equipment should c	onform to EN 14387
Protective measures	: Avoid contact with s Wear suitable protect	

SECTION 9: Physical and chemical properties

9.1 Information on basic physical and chemical properties

Physical state	: liquid
Colour	: light yellow
Odour	: ammoniacal
Odour Threshold	: not determined
Melting point/freezing point	: Not applicable
Boiling point/boiling range	: > 200 °C
Upper explosion limit / Upper flammability limit	: Not applicable
Lower explosion limit / Lower flammability limit	: Not applicable
Flash point	: 100 °C
Ignition temperature	: Not applicable
Auto-ignition temperature	: Not applicable
Decomposition temperature	: Method: No data available
рН	: 11 Concentration: 1 %
Viscosity Viscosity, dynamic	: 180 - 300 mPa.s (25 °C)
Viscosity, kinematic	: not determined
Solubility(ies) Water solubility	: not determined
Solubility in other solvents	: not determined
Partition coefficient: n- octanol/water	: No data available

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Vapour pressure	: not determined	
Density	: 1 g/cm3 (25 °C)
Bulk density	: not determined	
Relative vapour density	y : not determined	
Particle characteristics Particle size	: Not applicable	
9.2 Other information		
Explosives	: Not applicable	
Oxidizing properties	: Not applicable	
Self-ignition	: Not applicable	
Evaporation rate	: not determined	
Surface tension	: not determined	
Sublimation point	: Not applicable	

SECTION 10: Stability and reactivity

10.1 Reactivity

Stable under recommended storage conditions.

10.2 Chemical stability

No decomposition if stored and applied as directed.

10.3 Possibility of hazardous reactions

Hazardous reactions	:	Reacts with the following substances: Acids Strong oxidizing agents
10.4 Conditions to avoid Conditions to avoid	:	No decomposition if used as directed.
10.5 Incompatible materials		

10.5 Incompatible materials

Materials to avoid

: Strong acids Strong oxidizing agents

10.6 Hazardous decomposition products

This product may release the following: Nitrogen oxides (NOx) Carbon monoxide Carbon dioxide (CO2)

according to Regulation (EC) No. 1907/2006



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share the knowledge

SECTION 11: Toxicological information

11.1 Information on hazard classes as defined in Regulation (EC) No 1272/2008

Acute toxicity		
Product:		
Acute oral toxicity	:	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method
		Remarks: No data available
Acute inhalation toxicity	:	Remarks: No data available
		Acute toxicity estimate: > 5 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: Calculation method
Acute dermal toxicity	:	Acute toxicity estimate: > 2.000 mg/kg Method: Calculation method
Acute toxicity (other routes of administration)	:	Remarks: No data available
Components:		
Poly[oxy(methyl-1,2-ethaned	liyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-:
Acute oral toxicity	:	LD50 (Rat, male and female): 2.885,3 mg/kg Method: OECD Test Guideline 401 GLP: yes
Acute dermal toxicity	:	LD50 (Rabbit, male and female): 2.979,7 mg/kg Method: OECD Test Guideline 402 GLP: yes
benzyl alcohol:		
Acute inhalation toxicity	:	LC50 (Rat, male and female): 4 mg/l Exposure time: 4 h Test atmosphere: dust/mist Method: OECD Test Guideline 403 GLP: yes
3-aminomethyl-3,5,5-trimethy	ylc	yclohexylamine:
Acute oral toxicity	:	Acute toxicity estimate: 1.030 mg/kg Method: Acute toxicity estimate according to Regulation (EC) No. 1272/2008

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Skin corrosion/	irritation	
Product:		
Remarks	: No data avail	able
Components:		
Poly[oxy(methy	/l-1,2-ethanediyl)], α-(2-amino	methylethyl)-ω-(2-aminomethylethoxy)-:
Species	: Rabbit	
Method	: OECD Test C	Guideline 404
Result	: Corrosive	
	nediphenol, oligomeric reaction h 3-aminomethyl-3,5,5-trimethy	products with 1-chloro-2,3-epoxypropane, reac-
Species	: human skin	
Assessment	: Causes burn	
Method	: OECD Test 0	
Result	: Causes burn	S.
GLP	: yes	
benzyl alcohol:		
Species	: Rabbit	
Method	: OECD Test 0	Guideline 404
Result	: No skin irritat	ion
GLP	: yes	
Serious eye dar	mage/eye irritation	
Product:		
Remarks	: No data avail	able
Components:		
Poly[oxy(methy		methylethyl)-ω-(2-aminomethylethoxy)-:
Method	: OECD Test 0	
Result	: Risk of seriou	us damage to eyes.
benzyl alcohol:		
Species	: Rabbit	
Method	: OECD Test 0	Guideline 405
Result	: Eye irritation	
GLP	: yes	
Respiratory or s	skin sensitisation	
Product:		
Remarks	: No data avail	able
Remarks	: No data avail	able



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Components:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Assessment : May cause sensitisation by skin contact.

Germ cell mutagenicity

Components:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Genotoxicity in vitro	: Test Type: Ames test
	Test system: Salmonella typhimurium
	Metabolic activation: with and without metabolic activation
	Method: OECD Test Guideline 471
	Result: negative
	GLP: yes

Carcinogenicity

Product:

Remarks	:	No data available
Reproductive toxicity		
<u>Product:</u> Effects on fertility	:	Remarks: No data available
Effects on foetal develop-	:	Remarks: No data available

Components:

ment

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Effects on foetal develop- : ment	Test Type: Pre-natal Species: Rat Strain: Sprague-Dawley Application Route: Oral General Toxicity Maternal: NOAEL: 100 mg/kg body weight Teratogenicity: NOAEL: 250 mg/kg body weight Developmental Toxicity: NOAEL: 250 mg/kg body weight Embryo-foetal toxicity: NOAEL: 250 mg/kg body weight Method: OECD Test Guideline 414 GLP: yes
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STOT - single exposure

Product:

Remarks

: No data available

according to Regulation (EC) No. 1907/2006



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STOT -	repeated expo	sure		
<u>Produc</u> Remark		:	No data available	
Repeate	ed dose toxicit	у		
Produc	<u>t:</u>			
Remark	S	:	No data available	
<u>Compo</u>	nents:			
			meric reaction product	ts with 1-chloro-2,3-epoxypropane, reac- xylamine:
Species			Rat, male and female	
NOAEL		:	10 mg/kg	
LOAEL	lian Davita	:	100 mg/kg	
Exposu	tion Route		Oral 90 d	
Method		:	OECD Test Guideline	2 408
GLP		:	yes	
Species	5	:	Rat, male and female	
NOAEL		:	30 mg/kg	
	tion Route	:	Oral	
Exposu Method	retime	:	28 d OECD Test Guideline	107
GLP		:	yes	3 407
Aspirat	ion toxicity			
<u>Compo</u>	nents:			
3-amino	omethyl-3.5.5-t	rimethvlc	yclohexylamine:	
	ration toxicity cla		•	
11.2 Informa	ation on other I	hazards		
Endocr	ine disrupting	properties	S	
Produc	<u>t:</u>			
Assessr	ment	:	ered to have endocrin REACH Article 57(f)	re does not contain components consid- ne disrupting properties according to or Commission Delegated regulation commission Regulation (EU) 2018/605 at ner.
Further	information			
Produc	<u>t:</u>			
Remark	S	:	No data available	

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SECTION 12: Ecological information

12.1 Toxicity

Product:

Toxicity to fish	:	Remarks: No data available
Toxicity to daphnia and other aquatic invertebrates	:	Remarks: No data available

Components:

Poly[oxy(methyl-1,2-ethanediyl Toxicity to fish :	I)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-: LC50 (Oncorhynchus mykiss (rainbow trout)): > 15 mg/l Exposure time: 96 h Test Type: semi-static test Method: OECD Test Guideline 203
	GLP: yes
Toxicity to daphnia and other : aquatic invertebrates	EC50 (Daphnia magna (Water flea)): 80 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic : plants	NOEC (Pseudokirchneriella subcapitata (green algae)): 0,32 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes
4,4'-Isopropylidenediphenol, oligo tion products with 3-aminomethyl	omeric reaction products with 1-chloro-2,3-epoxypropane, reac3,5,5-trimethylcyclohexylamine:
Toxicity to fish :	LL50 (Oncorhynchus mykiss (rainbow trout)): 70,7 mg/l Exposure time: 96 h Test Type: static test Method: OECD Test Guideline 203 GLP: yes
Toxicity to daphnia and other : aquatic invertebrates	EL50 (Daphnia magna (Water flea)): 11,1 mg/l Exposure time: 48 h Test Type: static test Method: OECD Test Guideline 202 GLP: yes
Toxicity to algae/aquatic : plants	EL50 (Pseudokirchneriella subcapitata (green algae)): 79,4 mg/l Exposure time: 72 h Test Type: static test Method: OECD Test Guideline 201 GLP: yes

Biodegradability

ity

according to Regulation (EC) No. 1907/2006

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Toxicity to microorganis	Exposure tim Test Type: R	udge): > 1.000 mg/l ne: 3 h espiration inhibition CD Test Guideline 209
benzyl alcohol:		
Toxicity to daphnia and aquatic invertebrates	Exposure tim	nia magna (Water flea)): 230 mg/l ne: 48 h CD Test Guideline 202
Toxicity to algae/aquati plants	mg/l Exposure tim Test Type: s	
3-aminomethyl-3,5,5-t	rimethylcyclohexylami	ne:
Toxicity to fish	: LC50 (Leucis Exposure tim Test Type: s	scus idus (Golden orfe)): 110 mg/l
Toxicity to daphnia and aquatic invertebrates	Exposure tim Test Type: s	
Toxicity to algae/aquati plants	50 mg/l Exposure tim Test Type: s	
Toxicity to daphnia and aquatic invertebrates (0 ic toxicity)	Chron- Exposure tim Species: Dap	
12.2 Persistence and degr	adability	
Product:		

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Physico-chemical removabil- : Remarks: No data available

: Remarks: No data available



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Components:

Poly[oxy(methyl-1,2-ethan	ediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-:
Biodegradability	: Test Type: aerobic Result: Not readily biodegradable. Method: OECD Test Guideline 301B GLP: yes
	oligomeric reaction products with 1-chloro-2,3-epoxypropane, reac- ethyl-3,5,5-trimethylcyclohexylamine:
Biodegradability	: Test Type: aerobic Inoculum: activated sludge Result: Not biodegradable Biodegradation: 0 % Exposure time: 28 d Method: OECD Test Guideline 301F GLP: yes
3-aminomethyl-3,5,5-trimet	hylcyclohexylamine:
Biodegradability	: Test Type: aerobic Result: Not readily biodegradable. Method: Directive 67/548/EEC Annex V, C.4.A. GLP: yes
12.3 Bioaccumulative potential	
Product:	
Bioaccumulation	: Remarks: No data available
Components:	
Poly[oxy(methyl-1,2-ethan	ediyl)], α-(2-aminomethylethyl)-ω-(2-aminomethylethoxy)-:
Partition coefficient: n- octanol/water	: log Pow: 1,34 (25 °C) Method: OECD Test Guideline 117 GLP: yes
	oligomeric reaction products with 1-chloro-2,3-epoxypropane, reac- ethyl-3,5,5-trimethylcyclohexylamine:
Bioaccumulation	: Species: Fish Bioconcentration factor (BCF): 5,13 Method: estimated
	Method. Countaiod
Partition coefficient: n- octanol/water	: log Pow: 3,6 (25 °C) pH: 7 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: no
	: log Pow: 3,6 (25 °C) pH: 7 Method: Regulation (EC) No. 440/2008, Annex, A.8 GLP: no



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octanol/water

Method: OECD Test Guideline 107 GLP: yes

12.4 Mobility in soil

Components:

4,4'-Isopropylidenediphenol, oligomeric reaction products with 1-chloro-2,3-epoxypropane, reaction products with 3-aminomethyl-3,5,5-trimethylcyclohexylamine:

Distribution among environ-	:	log Koc: > 5,16
mental compartments		Method: OECD Test Guideline 121

12.5 Results of PBT and vPvB assessment

Product:

Assessment

: This substance/mixture contains no components considered to be either persistent, bioaccumulative and toxic (PBT), or very persistent and very bioaccumulative (vPvB) at levels of 0.1% or higher.

12.6 Endocrine disrupting properties

Product:

Assessment : The substance/mixture does not contain components considered to have endocrine disrupting properties according to REACH Article 57(f) or Commission Delegated regulation (EU) 2017/2100 or Commission Regulation (EU) 2018/605 at levels of 0.1% or higher.

12.7 Other adverse effects

Product:

Additional ecological infor-	:	An environmental hazard cannot be excluded in the event of
mation		unprofessional handling or disposal.

SECTION 13: Disposal considerations

13.1 Waste treatment methods		
Product	:	In accordance with local and national regulations. Container hazardous when empty. Do not dispose of with domestic refuse. Do not mix waste streams during collection.
Contaminated packaging	:	Empty containers should be taken to an approved waste han- dling site for recycling or disposal.

SECTION 14: Transport information

14.1 UN number or ID number

according to Regulation (EC) No. 1907/2006



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ADR/RID/ADN		
	: UN 2735 : UN 2735	
	: UN 2735	
14.2 UN proper shipping nar		
ADR/RID/ADN		LIQUID, CORROSIVE, N.O.S. ropylene Diamine)
IMDG		LIQUID, CORROSIVE, N.O.S. ropylene Diamine)
ΙΑΤΑ		quid, corrosive, n.o.s. ropylene Diamine)
14.3 Transport hazard class	es)	
ADR/RID/ADN	: 8	
IMDG	: 8	
ΙΑΤΑ	: 8	
14.4 Packing group		
ADR/RID/ADN Packing group Classification Code Hazard Identification Num Labels Tunnel restriction code IMDG Packing group Labels	: III : C7 ber : 80 : 8 : E : III : 8	
EmS Code Remarks	: F-A, S-B	le segregation group 18 - Alkalis
IATA (Cargo) Packing instruction (cargo aircraft) Packing group Labels	: 856 : III : Corrosive	
IATA (Passenger)	. Conosive	
Packing instruction (passign ger aircraft)		
Packing instruction (LQ) Packing group Labels	: Y841 : III : Corrosive	
14.5 Environmental hazards		
ADR/RID/ADN Environmentally hazardou	is : no	
IMDG Marine pollutant	: no	

according to Regulation (EC) No. 1907/2006





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14.6 Special precautions for user

Remarks

The transport of dangerous goods, including their loading and unloading, must be done by people who received the necessary training required by Modal Regulations.

The transport classification(s) provided herein are for informational purposes only, and solely based upon the properties of the unpackaged material as it is described within this Safety Data Sheet. Transportation classifications may vary by mode of transportation, package sizes, and variations in regional or country regulations.

14.7 Maritime transport in bulk according to IMO instruments

1

Not applicable for product as supplied.

SECTION 15: Regulatory information

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

Relevant EU provisions transposed through retained EU law

REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list 3
REACH - Restrictions on the manufacture, placing on the market and use of certain dangerous substances, mixtures and articles (Annex XVII)	:	Conditions of restriction for the fol- lowing entries should be considered: Number on list: 3
REACH - Candidate List of Substances of Very High Concern for Authorisation (Article 59).	:	Not applicable
Regulation (EC) No 1005/2009 on substances that de- plete the ozone layer	:	Not applicable
Regulation (EU) 2019/1021 on persistent organic pollu- tants (recast)	:	Not applicable
UK REACH List of substances subject to authorisation (Annex XIV)	:	Not applicable
Regulation (EU) 2019/1148 on the marketing and use of explosives precursors		
	:	Not applicable
International Chemical Weapons Convention (CWC) Schedules of Toxic Chemicals and Precursors	:	Not applicable
Council Regulation (EC) No 111/2005 laying down rules for the monitoring of trade between the Community and third countries in drug precursors	:	Not applicable

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Seveso III: Directive 2012/18/EU of the Euro- pean Parliament and of the Council on the control of major-accident hazards involving dangerous substances.		Not applicable	
	ve (2012/18/EU) implemented or Accident Hazards Regula- AH)	Not applicable	
15.2 Chemical safety assessment			

Not applicable

SECTION 16: Other information

Full text of H-Statements

H302 :	Harmful if swallowed.
H312 :	Harmful in contact with skin.
H314 :	Causes severe skin burns and eye damage.
H317 :	May cause an allergic skin reaction.
H318 :	Causes serious eye damage.
H319 :	Causes serious eye irritation.
H332 :	Harmful if inhaled.
H412 :	Harmful to aquatic life with long lasting effects.

Full text of other abbreviations

Acute Tox.	:	Acute toxicity
Aquatic Chronic	:	Long-term (chronic) aquatic hazard
Eye Dam.	:	Serious eye damage
Eye Irrit.	:	Eye irritation
Skin Corr.	:	Skin corrosion
Skin Sens.	:	Skin sensitisation

ADN - European Agreement concerning the International Carriage of Dangerous Goods by Inland Waterways; ADR - Agreement concerning the International Carriage of Dangerous Goods by Road; AIIC - Australian Inventory of Industrial Chemicals; ASTM - American Society for the Testing of Materials; bw - Body weight; CLP - Classification Labelling Packaging Regulation; Regulation (EC) No 1272/2008; CMR - Carcinogen, Mutagen or Reproductive Toxicant; DIN - Standard of the German Institute for Standardisation; DSL - Domestic Substances List (Canada); ECHA -European Chemicals Agency; EC-Number - European Community number; ECx - Concentration associated with x% response; ELx - Loading rate associated with x% response; EmS - Emergency Schedule; ENCS - Existing and New Chemical Substances (Japan); ErCx - Concentration associated with x% growth rate response; GHS - Globally Harmonized System; GLP - Good Laboratory Practice; IARC - International Agency for Research on Cancer; IATA - International Air Transport Association; IBC - International Code for the Construction and Equipment of Ships carrying Dangerous Chemicals in Bulk; IC50 - Half maximal inhibitory concentration; ICAO - International Civil Aviation Organization; IECSC - Inventory of Existing Chemical Substances in China; IMDG - International Maritime Dangerous Goods; IMO - International Maritime Organization; ISHL - Industrial Safety and Health Law (Japan); ISO - International Organisation for Standardization; KECI - Korea Existing Chemicals Inventory; LC50 - Lethal Concentration to 50 % of a test population; LD50 - Lethal Dose to 50% of a test population (Median Lethal Dose); MARPOL - International Convention for the Prevention of Pollution from Ships; n.o.s. - Not Otherwise Specified; NO(A)EC - No Observed (Adverse) Effect Concentration; NO(A)EL - No Observed (Adverse) Effect Level; NOELR - No Observable Effect Loading Rate; NZIoC - New Zealand Inventory of Chemicals; OECD - Organization for Economic Co-operation and Development; OPPTS - Office of Chemical Safety and Pollution Prevention; PBT - Persistent, Bioaccumulative and Toxic sub-



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stance; PICCS - Philippines Inventory of Chemicals and Chemical Substances; (Q)SAR - (Quantitative) Structure Activity Relationship; REACH - Regulation (EC) No 1907/2006 of the European Parliament and of the Council concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals; RID - Regulations concerning the International Carriage of Dangerous Goods by Rail; SADT - Self-Accelerating Decomposition Temperature; SDS - Safety Data Sheet; SVHC - Substance of Very High Concern; TCSI - Taiwan Chemical Substance Inventory; TECI -Thailand Existing Chemicals Inventory; TRGS - Technical Rule for Hazardous Substances; TSCA - Toxic Substances Control Act (United States); UN - United Nations; vPvB - Very Persistent and Very Bioaccumulative

Further information

Training advice

: Provide adequate information, instruction and training for operators.

Classification of th	e mixture:	Classification procedure:
Skin Corr. 1B	H314	Calculation method
Eye Dam. 1	H318	Calculation method
Skin Sens. 1	H317	Calculation method
Aquatic Chronic 3	H412	Calculation method

The information provided in this Safety Data Sheet is correct to the best of our knowledge, information and belief at the date of its publication. The information given is designed only as a guidance for safe handling, use, processing, storage, transportation, disposal and release and is not to be considered a warranty or quality specification.

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