

EL160 High Temperature Epoxy Laminating Resin

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Compilation date: 04/06/2015

Revision date: 28/03/2017

Revision No: 6

#### Section 1: Identification of the substance/mixture and of the company/undertaking

## 1.1. Product identifier

Product name: EL160 High Temperature Epoxy Laminating Resin

Product code: EP-L160-A

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

Use of substance / mixture: PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations\* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations\* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

# 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	
	ST3 5XA	
	United Kingdom	
Tel:	+44 (0) 1782 454499	
Email:	safety@easycomposites.co.uk	

# EL160 High Temperature Epoxy Laminating Resin

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1.4. Emergency telephone num	iber	
Emergency tel:	+44 (0) 1782 454499	
	(office hours only)	
Section 2: Hazards identification	on	
2.1. Classification of the subst	ance or mixture	
Classification under CLP:	Aquatic Chronic 2: H411; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317; STOT	
	SE 3: H335	
Most important adverse effects:	Causes skin irritation. May cause an allergic skin reaction. Causes serious eye irritation.	
	May cause respiratory irritation. Toxic to aquatic life with long lasting effects.	
2.2. Label elements		
Label elements:		
Hazard statements:	H315: Causes skin irritation.	
	H317: May cause an allergic skin reaction.	
	H319: Causes serious eye irritation.	
	H335: May cause respiratory irritation.	
	H411: Toxic to aquatic life with long lasting effects.	
Hazard pictograms:	GHS07: Exclamation mark	
	GHS09: Environmental	
Signal words:	Warning	
Precautionary statements:	P280: Wear protective gloves/protective clothing/eye protection/face protection.	
	P302+352: IF ON SKIN: Wash with plenty of water/.	
	P304+340: IF INHALED: Remove person to fresh air and keep comfortable for breathing.	
	P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove	
	contact lenses, if present and easy to do. Continue rinsing.	
	P312: Call a doctor if you feel unwell.	
	P321: Specific treatment (see instructions on this label).	
2.3. Other hazards		
PBT:	This product is not identified as a PBT/vPvB substance.	

# Section 3: Composition/information on ingredients

# 3.2. Mixtures

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## Hazardous ingredients:

## N,N-DIGLYCIDYL ANILINE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
-	2095-06-9	-	Acute Tox. 4: H302; Skin Irrit. 2: H315;	25-50%
			Skin Sens. 1: H317; Eye Irrit. 2: H319;	
			STOT SE 3: H335	

# FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROANE AND PHENOL -REACH registered number(s): 01-2119454392-40

500-006-8	9003-36-5	-	Aquatic Chronic 2: H411; Skin Irrit. 2:	1-25%	
			H315; Skin Sens. 1: H317		

# N,N,N',N'-TETRAGLYCIDYL-4,4'-DIAMINO DIPHENYL METHANE

249-204-3	28768-32-3	-	Aquatic Chronic 2: H411; Skin Sens. 1:	1-25%
			H317	

## BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}

500-033-5	25068-38-6	-	Eye Irrit. 2: H319; Skin Irrit. 2: H315;	1-25%
			Skin Sens. 1: H317; Aquatic Chronic 2:	
			H411	

## 1,4-BIS(2,3-EPOXYPROPOXY) BUTANE

219-	371-7	2425-79-8	-	Acute Tox. 4: H332; Acute Tox. 4: H312;	1-25%
				Eye Irrit. 2: H319; Skin Irrit. 2: H315;	
				Skin Sens. 1: H317	

## [3-2-(2,3-EPOXYPROPOXY)PROPYL]TRIMETHOXYSILANE

219-784-2	2530-83-8	-	Skin Irrit. 2: H315; Aquatic Chronic 3:	1-25%	
			H412; Eye Irrit. 2: H319		

## Section 4: First aid measures

#### 4.1. Description of first aid measures

Skin contact: Remove all contaminated clothes and footwear immediately unless stuck to skin. Wash

immediately with plenty of soap and water. Consult a doctor.

**Eye contact:** Bathe the eye with running water for 15 minutes. Consult a doctor.

Ingestion: Wash out mouth with water. Consult a doctor.

Inhalation: Move to fresh air in case of accidental inhalation of vapours. Consult a doctor.

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

Skin contact:	There may be irritation and redness at the site of contact.
Eye contact:	There may be irritation and redness.
Ingestion:	Nausea and stomach pain may occur.
Inhalation:	There may be a feeling of tightness in the chest with shortness of breath. Exposure may
	cause coughing or wheezing.
Delayed / immediate effects:	Immediate effects can be expected after short-term exposure.

#### EL160 High Temperature Epoxy Laminating Resin

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

**Immediate / special treatment:** Show this safety data sheet to the doctor in attendance.

# Section 5: Fire-fighting measures

## 5.1. Extinguishing media

Extinguishing media: Water spray. Water fog. Dry chemical powder. Carbon dioxide. Alcohol or polymer foam.

Alcohol resistant foam.

#### 5.2. Special hazards arising from the substance or mixture

Exposure hazards: In combustion emits toxic fumes.

## 5.3. Advice for fire-fighters

Advice for fire-fighters: Wear self-contained breathing apparatus. Wear protective clothing to prevent contact

with skin and eyes.

# Section 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

Personal precautions: Mark out the contaminated area with signs and prevent access to unauthorised

personnel. Refer to section 8 of SDS for personal protection details.

## 6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers.

#### 6.3. Methods and material for containment and cleaning up

Clean-up procedures: Mix with sand or vermiculite. Transfer to a closable, labelled salvage container for

disposal by an appropriate method.

# 6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

#### Section 7: Handling and storage

#### 7.1. Precautions for safe handling

Handling requirements: Ensure there is sufficient ventilation of the area. Avoid direct contact with the substance.

## 7.2. Conditions for safe storage, including any incompatibilities

Storage conditions: Store in a cool, well ventilated area.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

# Section 8: Exposure controls/personal protection

#### EL160 High Temperature Epoxy Laminating Resin

# 8.1. Control parameters

Workplace exposure limits: No data available.

# **DNEL/PNEC** Values

DNEL / PNEC No data available.

# 8.2. Exposure controls

Engineering measures:Ensure there is sufficient ventilation of the area.Respiratory protection:Self-contained breathing apparatus must be available in case of emergency.Hand protection:Impermeable gloves.Eye protection:Safety glasses.Skin protection:Protective clothing.

Section 9: Physical and chemical properties

## 9.1. Information on basic physical and chemical properties

State:	Liquid		
Colour:	Yellow		
Odour:	Characteristic odour		
Evaporation rate:	No data available.		
Oxidising:	No data available.		
Solubility in water:	No data available.		
Viscosity:	1250 mPa.s (25°C)		
Boiling point/range°C:	No data available. Melting pe	oint/range°C:	No data available.
Flammability limits %: lower:	No data available.	upper:	No data available.
Flash point°C:	No data available. Part.coeff. n-o	ctanol/water:	No data available.
Autoflammability°C:	No data available. Vapo	our pressure:	No data available.
Relative density:	1.10 - 1.20	pH:	No data available.
VOC g/l:	No data available.		

9.2. Other information

Other information: No data available.

# Section 10: Stability and reactivity

## 10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

10.2. Chemical stability

Chemical stability: Stable under normal conditions.

## 10.3. Possibility of hazardous reactions

Hazardous reactions: Polymerisation may occur on exposure to conditions or materials listed below.

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# 10.4. Conditions to avoid

## Conditions to avoid: Heat.

# 10.5. Incompatible materials

Materials to avoid: Amines.

# 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

# Section 11: Toxicological information

11.1. Information on toxicological effects

## Hazardous ingredients:

#### N,N-DIGLYCIDYL ANILINE

DERMAL	RBT	LD50	3560	mg/kg
ORAL	RAT	LD50	>1620	mg/kg

# FORMALDEHYDE, OLIGOMERIC REACTION PRODUCTS WITH 1-CHLORO-2,3-EPOXYPROANE AND PHENOL

ORAL RAT LD5	> 2000 mg/l
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# N,N,N',N'-TETRAGLYCIDYL-4,4'-DIAMINO DIPHENYL METHANE

DERMAL	RBT	LD50	>3000	mg/kg
DUST/MIST	RAT	4H LC50	>30	mg/m3
ORAL	MUS	LD50	>5000	mg/kg

# BISPHENOL A-(EPICHLORHYDRIN) {REACTION PRODUCT}

ORL	MUS	LD50	15600	mg/kg
ORL	RAT	LD50	11400	mg/kg
SKN	RBT	LD50	>20	ml/kg

# 1,4-BIS(2,3-EPOXYPROPOXY) BUTANE

ORL		RAT	LD50	1134	mg/kg	
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#### Relevant hazards for product:

Hazard	Route	Basis
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
STOT-single exposure	INH	Hazardous: calculated

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Symptoms / routes of exposure	e			
Skin contact:	There may be irritation and	d redness at the site of c	contact.	
Eye contact:	There may be irritation and	d redness.		
Ingestion:	Nausea and stomach pain	n may occur.		
Inhalation:	There may be a feeling of	tightness in the chest wi	ith shortness of breath	. Exposure may
	cause coughing or wheezi	ing.		
Delayed / immediate effects:	Immediate effects can be	expected after short-terr	m exposure.	
ection 12: Ecological information	ation			
12.1. Toxicity				
Hazardous ingredients:				
FORMALDEHYDE, OLIGOME	ERIC REACTION PRODUC	TS WITH 1-CHLORO-2,	3-EPOXYPROANE A	ND PHENOL
Daphnia magna		96H LC50	> 100	mg/l
AQUATIC PLANT		96H ErC50	38.234	mg/l
N,N,N',N'-TETRAGLYCIDYL-4	4,4'-DIAMINO DIPHENYL N	IETHANE	1	1
CRUSTACEA		48h LC50	14.682	
FISH		96H LC50	2.454	mg/l
12.2. Persistence and degrada	bility			
Persistence and degradability:				
12.3. Bioaccumulative potentia	al			
Bioaccumulative potential:	No data available.			
12.4. Mobility in soil				
Mobility:	No data available.			
12.5. Results of PBT and vPvB	assessment			
PBT identification:	This product is not identified	ed as a PBT/vPvB subst	ance.	
12.6. Other adverse effects				
Other adverse effects:	Toxic to aquatic organisms	S.		
ection 13: Disposal consider	ations			
13.1. Waste treatment methods	5			
Disposal operations:	Transfer to a suitable cont	ainer and arrange for co	ellection by specialised	l disposal
	company.			
Disposal of packaging:	Arrange for collection by s	pecialised disposal com	ipany.	
NB:	The user's attention is dra	wn to the possible existe	ence of regional or nat	ional
	regulations regarding disp		-	

regulations regarding disposal.

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Marine pollutant: Yes

# Section 14: Transport information

14.1. UN number

#### UN number: UN3082

#### 14.2. UN proper shipping name

#### Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S.

(Epoxy resin)

# 14.3. Transport hazard class(es)

Transport class: 9

14.4. Packing group

Packing group: III

14.5. Environmental hazards

Environmentally hazardous: Yes

14.6. Special precautions for user

Tunnel code: E

Transport category: 3

# Section 15: Regulatory information

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

Specific regulations: Not applicable.

# 15.2. Chemical Safety Assessment

Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture

by the supplier.

# Section 16: Other information

## Other information

Other information:	This safety data sheet is prepared in accordance with Commission Regulation (EU) No
	2015/830.
	* indicates text in the SDS which has changed since the last revision.
Phrases used in s.2 and s.3:	H302: Harmful if swallowed.
	H312: Harmful in contact with skin.
	H315: Causes skin irritation.
	H317: May cause an allergic skin reaction.
	H319: Causes serious eye irritation.
	H332: Harmful if inhaled.
	H335: May cause respiratory irritation.
	H411: Toxic to aquatic life with long lasting effects.
	H412: Harmful to aquatic life with long lasting effects.

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Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product. Page: 9



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Compilation date: 04/06/2015

Revision date: 02/02/2016

Revision No: 7

## Section 1: Identification of the substance/mixture and of the company/undertaking

#### 1.1. Product identifier

**Product name:** EL160 High Temperature Epoxy Laminating Resin Hardener **Product code:** EP-L160-B

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

Use of substance / mixture: PC1: Adhesives, sealants. PC9a: Coatings and paints, thinners, paint removers. PC9b: Fillers, putties, plasters, modelling clay. PC32: Polymer preparations and compounds. PROC1: Use in closed process, no likelihood of exposure PROC2: Use in closed, continuous process with occasional controlled exposure PROC3: Use in closed batch process (synthesis or formulation) PROC4: Use in batch and other process (synthesis) where opportunity for exposure arises PROC5: Mixing or blending in batch processes for formulation of preparations\* and articles (multistage and/or significant contact) PROC8a: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at non-dedicated facilities PROC8b: Transfer of substance or preparation (charging/discharging) from/to vessels/large containers at dedicated facilities PROC9: Transfer of substance or preparation into small containers (dedicated filling line, including weighing) PROC10: Roller application or brushing PROC13: Treatment of articles by dipping and pouring PROC19: Hand-mixing with intimate contact and only PPE available ERC2: Formulation of preparations\* ERC3: Formulation in materials ERC5: Industrial use resulting in inclusion into or onto a matrix ERC6d: Industrial use of process regulators for polymerisation processes in production of resins, rubbers, polymers

# 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
Fax:	+44 (0) 1782 596868
Email:	sales@easycomposites.co.uk

# EL160 High Temperature Epoxy Laminating Resin Hardener

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1.4. Emergency telephone num	ber		
Emergency tel:	+44 (0) 1782 454499		
	(office hours only)		
Section 2: Hazards identification			
			_
2.1. Classification of the subst	ance or mixture		
Classification under CLP:	Acute Tox. 4: H302; STOT RE 2: H373; Eye Dam. 1: H318; Skin Corr. 1B: H314; Skin		
	Sens. 1: H317		
Most important adverse effects:	Harmful if swallowed. Causes severe skin burns and eye damage. May cause an		
	allergic skin reaction. Causes serious eye damage. May cause damage to organs		
	through prolonged or repeated exposure.		
2.2. Label elements			
Label elements:			
Hazard statements:	H302: Harmful if swallowed.		
	H314: Causes severe skin burns and eye damage.		
	H317: May cause an allergic skin reaction.		
	H318: Causes serious eye damage.		
	H373: May cause damage to organs through prolonged or repeated exposure.		
Hazard pictograms:	GHS05: Corrosion		
	GHS07: Exclamation mark		
	GHS08: Health hazard		
	$\wedge$ $\wedge$ $\wedge$		
Signal words:	Danger		
Precautionary statements:	P260: Do not breathe dust/fumes/gas/mist/vapours/spray.		
	P280: Wear protective gloves/protective clothing/eye protection/face protection.		
	P301+312: IF SWALLOWED: Call a POISON CENTER/doctor/ if you feel unwell.		
	P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.		
	P302+352: IF ON SKIN: Wash with plenty of water/.		
	P303+361+353: IF ON SKIN (or hair): Take off immediately all contaminated clothing.		
	Rinse skin with water/shower.		
2.3. Other hazards			
PBT:	This product is not identified as a PBT/vPvB substance.		

Section 3: Composition/information on ingredients

# 3.2. Mixtures

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# Hazardous ingredients:

# 4,4 METHYLENEBIS (CYCLOHEXYLAMINE) - REACH registered number(s): 01-2119541673-38

EINECS	CAS	PBT / WEL	CLP Classification	Percent		
217-168-8	1761-71-3	-	Acute Tox. 4: H302; Skin Corr. 1B: H314; STOT RE 2: H373; Eye Dam. 1: H318; Skin Sens. 1: H317	>50%		
3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE - REACH registered number(s): 01-2119514687-32						

220-666-8	2855-13-2	-	Acute Tox. 4: H312; Acute Tox. 4: H302;	1-25%
			Skin Corr. 1B: H314; Skin Sens. 1:	
			H317; Aquatic Chronic 3: H412	

# Section 4: First aid measures

4.1. Description of first aid measures			
Skin contact:	Remove all contaminated clothes and footwear immediately unless stuck to skin.		
	Drench the affected skin with running water for 10 minutes or longer if substance is still		
	on skin. Consult a doctor.		
Eye contact:	Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist		
	examination.		
Ingestion:	Do not induce vomiting. Wash out mouth with water. If conscious, give half a litre of water		
	to drink immediately. Transfer to hospital as soon as possible.		
Inhalation:	Move to fresh air in case of accidental inhalation of vapours. Remove casualty from		
	exposure ensuring one's own safety whilst doing so. If conscious, ensure the casualty		
	sits or lies down. If unconscious, check for breathing and apply artificial respiration if		
	necessary. Consult a doctor.		
4.2. Most important symptoms	and effects, both acute and delayed		
Skin contact:	Severe burns may occur. There may be irritation and redness at the site of contact.		
Eye contact:	There may be severe pain. Corneal burns may occur. May cause permanent damage.		
Ingestion:	Corrosive burns may appear around the lips. There may be soreness and redness of		
	the mouth and throat. Nausea and stomach pain may occur.		
Inhalation:	There may be a feeling of tightness in the chest with shortness of breath. Exposure may		
	cause coughing or wheezing.		
Delayed / immediate effects:	Immediate effects can be expected after short-term exposure.		
4.3. Indication of any immediate medical attention and special treatment needed			

Immediate / special treatment: Show this safety data sheet to the doctor in attendance.

# Section 5: Fire-fighting measures

# 5.1. Extinguishing media

Extinguishing media: Carbon dioxide. Dry chemical powder. Alcohol or polymer foam. Water spray. Use water spray to cool containers.

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## 5.2. Special hazards arising from the substance or mixture

#### Exposure hazards: In combustion emits toxic fumes.

# 5.3. Advice for fire-fighters

Advice for fire-fighters: Wear protective clothing to prevent contact with skin and eyes. Wear self-contained

breathing apparatus.

# Section 6: Accidental release measures

#### 6.1. Personal precautions, protective equipment and emergency procedures

**Personal precautions:** Refer to section 8 of SDS for personal protection details. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Turn leaking containers leak-side up to prevent the escape of liquid.

#### 6.2. Environmental precautions

Environmental precautions: Do not discharge into drains or rivers. Contain the spillage using bunding.

#### 6.3. Methods and material for containment and cleaning up

**Clean-up procedures:** Mix with sand or vermiculite. Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Transfer to a closable, labelled salvage container for disposal by an appropriate method.

#### 6.4. Reference to other sections

Reference to other sections: Refer to section 8 of SDS. Refer to section 13 of SDS.

# Section 7: Handling and storage

# 7.1. Precautions for safe handling

Handling requirements: Avoid direct contact with the substance. Ensure there is sufficient ventilation of the area.

Do not handle in a confined space. Avoid the formation or spread of mists in the air.

#### 7.2. Conditions for safe storage, including any incompatibilities

**Storage conditions:** Keep container tightly closed. Avoid incompatible materials and conditions - see section 10 of SDS.

Suitable packaging: Must only be kept in original packaging.

7.3. Specific end use(s)

Specific end use(s): No data available.

#### Section 8: Exposure controls/personal protection

#### 8.1. Control parameters

Workplace exposure limits: No data available.

#### **DNEL/PNEC** Values

DNEL / PNEC No data available.

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# 8.2. Exposure controls Engineering measures: Ensure there is sufficient ventilation of the area. Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Gas/vapour filter, type K: ammonia and derivatives (EN141). Hand protection: Impermeable gloves. Eye protection: Safety glasses with side-shields. Ensure eye bath is to hand. Skin protection: Impermeable protective clothing. Environmental: Ensure all engineering measures mentioned in section 7 of SDS are in place.

# Section 9: Physical and chemical properties

# 9.1. Information on basic physical and chemical properties

State:	Liquid	
Colour:	Pale yellow	
Odour:	Characteristic odour	
Evaporation rate:	No data available.	
Oxidising:	No data available.	
Solubility in water:	No data available.	
Viscosity:	65 mPas (25°C)	
Boiling point/range°C:	No data available. Melting point/range°C:	No data available.
Flammability limits %: lower:	No data available. upper:	No data available.
Flash point°C:	No data available. Part.coeff. n-octanol/water:	No data available.
Autoflammability°C:	No data available. Vapour pressure:	No data available.
Relative density:	0.93 - 0.98 <b>pH</b> :	No data available.
VOC g/l:	No data available.	

9.2. Other information

Other information: No data available.

#### Section 10: Stability and reactivity

10.1. Reactivity

Reactivity: Stable under recommended transport or storage conditions.

# 10.2. Chemical stability

Chemical stability: Stable under normal conditions.

# 10.3. Possibility of hazardous reactions

Hazardous reactions: Hazardous reactions will not occur under normal transport or storage conditions.

Decomposition may generate enough heat and gases for fires/explosions.

Decomposition may occur on exposure to conditions or materials listed below.

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# 10.4. Conditions to avoid

Conditions to avoid: Direct sunlight. Heat. Sources of ignition.

## 10.5. Incompatible materials

Materials to avoid: Acids. Oxidising agents. Metals.

## 10.6. Hazardous decomposition products

Haz. decomp. products: In combustion emits toxic fumes.

## Section 11: Toxicological information

11.1. Information on toxicological effects

# Hazardous ingredients:

#### 4,4 METHYLENEBIS (CYCLOHEXYLAMINE)

DERMAL	RBT	LD50	2110	mg/kg
ORAL	RAT	LD50	625	mg/kg

## 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

DERMAL	RBT	LD50	1840	mg/kg
ORAL	RAT	LD50	1030	mg/kg

# Relevant hazards for substance:

Hazard	Route	Basis
Acute toxicity (ac. tox. 4)	ING	Hazardous: calculated
Skin corrosion/irritation	DRM	Hazardous: calculated
Serious eye damage/irritation	OPT	Hazardous: calculated
Respiratory/skin sensitisation	DRM	Hazardous: calculated
STOT-repeated exposure	-	Hazardous: calculated

#### Symptoms / routes of exposure

 Skin contact:
 Severe burns may occur. There may be irritation and redness at the site of contact.

 Eye contact:
 There may be severe pain. Corneal burns may occur. May cause permanent damage.

 Ingestion:
 Corrosive burns may appear around the lips. There may be soreness and redness of the mouth and throat. Nausea and stomach pain may occur.

 Inhalation:
 There may be a feeling of tightness in the chest with shortness of breath. Exposure may cause coughing or wheezing.

 Delayed / immediate effects:
 Immediate effects can be expected after short-term exposure.

# Section 12: Ecological information

# 12.1. Toxicity

## EL160 High Temperature Epoxy Laminating Resin Hardener

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## Hazardous ingredients:

## 4,4 METHYLENEBIS (CYCLOHEXYLAMINE)

Daphnia magna	48H EC50	6.84	mg/l
Daphnia magna	504H NOEC	4	mg/l
GOLDEN ORFE (Leuciscus idus)	96H LC50	46 - 100	mg/l

## 3-AMINOMETHYL-3,5,5-TRIMETHYLCYCLOHEXYLAMINE

Daphnia magna	48H EC50	23	mg/l
Scenedesmus Subspicatus	72H EC50	50	mg/l
ZEBRAFISH (Brachydanio rerio)	96H LC50	110	mg/l

#### 12.2. Persistence and degradability

Persistence and degradability: No data available.

#### 12.3. Bioaccumulative potential

Bioaccumulative potential: No data available.

12.4. Mobility in soil

Mobility: No data available.

## 12.5. Results of PBT and vPvB assessment

PBT identification: This product is not identified as a PBT/vPvB substance.

12.6. Other adverse effects

Other adverse effects: Toxic to aquatic organisms.

# Section 13: Disposal considerations

#### 13.1. Waste treatment methods

 Disposal operations:
 Transfer to a suitable container and arrange for collection by specialised disposal company.

 Disposal of packaging:
 Arrange for collection by specialised disposal company.

 NB:
 The user's attention is drawn to the possible existence of regional or national regulations regarding disposal.

# Section 14: Transport information

14.1. UN number

UN number: UN2735

## 14.2. UN proper shipping name

Shipping name: POLYAMINES, LIQUID, CORROSIVE, N.O.S.

(Contains: 4,4 Methylenebis (cyclohexylamine); 3-Amino-3,5,5-trimethylcyclohexylamine)

# EL160 High Temperature Epoxy Laminating Resin Hardener

14.3. Transport hazard class(es)         Transport class: 8         14.4. Packing group         Packing group: II         14.5. Environmental hazards         Environmentally hazardous: Yes         Marine pollutant: No         14.6. Special precautions for user         Special precautions: No special precautions.         Tunnel code: E         Transport category: 2         Section 15: Regulatory information         15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations: Not applicable.         15.2. Chemical Safety Assessment         Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16: Other information	
14.4. Packing group         Packing group:         14.5. Environmental hazards         Environmental hazardss:         Environmentally hazardous:         Yes       Marine pollutant:         No         14.6. Special precautions for user         Special precautions:         No special precautions.         Tunnel code:         E         Transport category:         2         Section 15: Regulatory information         15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations:         Not applicable.         15.2. Chemical Safety Assessment         Chemical safety assessment:         A chemical safety assessment:         A chemical safety assessment         Section 16: Other information	
Packing group:       II         14.5. Environmental hazards       Environmental hazards         Environmentally hazardous:       Yes         Marine pollutant:       No         14.6. Special precautions for user       Special precautions:         Special precautions:       No special precautions.         Tunnel code:       E         Transport category:       2         Section 15:       Regulatory information         15.1.       Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations:       Not applicable.         15.2.       Chemical Safety Assessment:         A chemical safety assessment:       A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16:       Other information	
14.5. Environmental hazards         Environmentally hazardous: Yes       Marine pollutant: No         14.6. Special precautions for user         Special precautions: No special precautions.         Tunnel code: E         Transport category: 2         Section 15: Regulatory information         15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations: Not applicable.         15.2. Chemical Safety Assessment         Chemical safety assessment: A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16: Other information	
Environmentally hazardous: Yes       Marine pollutant: No         14.6. Special precautions for user         Special precautions:       No special precautions.         Tunnel code:       E         Transport category:       2         Section 15: Regulatory information       15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations:       Not applicable.         15.2. Chemical Safety Assessment       A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16: Other information       16: Other information	
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Section 15: Regulatory information         15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations:       Not applicable.         15.2. Chemical Safety Assessment         Chemical safety assessment:       A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16: Other information	
15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture         Specific regulations:       Not applicable.         15.2. Chemical Safety Assessment       A chemical safety assessment has not been carried out for the substance or the mixture by the supplier.         Section 16: Other information       Section 16: Other information	
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Other information	
Other information: This safety data sheet is prepared in accordance with Commission Regulation (EU) No	
453/2010.	
* indicates text in the SDS which has changed since the last revision.	
Phrases used in s.2 and s.3: 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.	
H373: May cause damage to organs <or affected,="" all="" if="" known="" organs="" state=""> through</or>	
prolonged or repeated exposure <state conclusively="" exposure="" if="" is="" it="" of="" proven="" route="" th="" that<=""><th></th></state>	
no other routes of exposure cause the hazard>.	
H412: Harmful to aquatic life with long lasting effects.	
Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive	
and shall be used only as a guide. This company shall not be held liable for any	