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## **MATERIAL SAFETY DATA SHEET**

### **UPS 225 HT HIGHT-TEMPERATURE CERAMIC**

MANUFACTURER:  
UNIQUE POLYMER SYSTEMS LTD,  
UNIT 19, LINK BUSINESS CENTRE,  
LINK WAY, MALVERN, WORCESTERSHIRE  
WR14 1UQ  
UNITED KINGDOM  
TELEPHONE NUMBER: +44 ( 0 ) 1531 63 63 00  
EMAIL: [SALES@UNIQUEPOLYMERSYSTEMS.COM](mailto:SALES@UNIQUEPOLYMERSYSTEMS.COM)

**EMERGENCY TELEPHONE NUMBER: +44 ( 0 ) 1531 63 63 00**

THIS PRODUCT IS A KIT AND SUPPLIED AS A MULTI PART PRODUCT WHICH  
CONSISTS OF A BASE COMPONENT AND ACTIVATOR COMPONENT.  
THIS DOCUMENT CONTAINS THE MSDS FOR BOTH BASE AND ACTIVATOR COMPONENTS.

#### **TRANSPORTATION INFORMATION**

ACTIVATOR	BASE
UN number: UN2735 UN proper shipping name Shipping name: AMINES, LIQUID, CORROSIVE, N.O.S. (CYCLOHEXANEDIAMINE) Transport class: 8 Packing group: III Environmentally hazardous: No Marine pollutant: No Special precautions for user Special precautions: No special precautions. Tunnel code: E Transport category: 3	UN number: UN3077 UN proper shipping name Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S. (EPOXY PHENOL NOVOLAC RESIN) Transport class: 9 Packing group: III Environmentally hazardous: Yes Marine pollutant: No Special precautions for user Special precautions: No special precautions. Tunnel code: E Transport category: 3

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Unique Polymer Systems LTD  
Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44( 0 ) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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## SECTION 1: Identification of Substance/ Preparation and Company

- 1.1 Product identifier  
UPS 225 HT HIGH-TEMPERATURE CERAMIC ACTIVATOR
- 1.2 Relevant identified uses of the substance or mixture and uses advised against  
Aliphatic polyamine hardener blend with inert fillers for repairing metalwork
- 1.3 Details of the supplier of the safety data sheet  
Unique Polymer Systems LTD,  
Unit 19, Link Business Centre,  
Link Way, Malvern, Worcestershire,  
WR14 1UQ  
United Kingdom  
Tel: +44 (0) 1531 63 63 00  
Email: sales@uniquepolymersystems.com
- 1.4 Emergency telephone number  
+44 (0) 1531 63 63 00 (9am to 5pm)

## Section 2: Hazards identification

2.1. Classification of the substance or mixture  
Classification under CLP: Acute Tox. 4: H302; Repr. 2: H361f; 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. Suspected of damaging fertility.

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.  
H361f: Suspected of damaging fertility.  
Signal words: Danger  
Hazard pictograms:  
GHS05: Corrosion  
GHS07: Exclamation mark  
GHS08: Health hazard



Precautionary statements: P102: Keep out of reach of children.  
P202: Do not handle until all safety precautions have been read and understood.  
P260: Do not breathe vapours.  
P280: Wear protective gloves/protective clothing/eye protection/face protection.  
P301+330+331: IF SWALLOWED: rinse mouth. Do NOT induce vomiting.  
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.  
P333+313: If skin irritation or rash occurs: Get medical advice/attention.  
P501: Dispose of contents/container to hazardous or special waste collection point.

Unique Polymer Systems LTD

Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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### 2.3. Other hazards

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

## Section 3: Composition/information on ingredients

### 3.2. Mixtures

Hazardous ingredients:

1,2-CYCLOHEXANEDIAMINE

EINECS	CAS	PBT / WEL	CLP Classification	Percent
211-776-7	694-83-7	-	Skin Corr. 1B: H314	50 – 70%

2,2'-IMINODIETHYLAMINE

203-865-4	111-40-0	-	Acute Tox. 4: H312; Acute Tox. 4: H302;  Skin Corr. 1B: H314; Skin Sens. 1:  H317	10-30%
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4,4'-ISOPROPYLIDENEDIPHENOL

201-245-8	80-05-7	-	Repr. 2: H361f; STOT SE 3: H335; Eye  Dam. 1: H318; Skin Sens. 1: H317	10-30%
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## 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. Transfer to hospital if there are burns or symptoms of poisoning.

Eye contact: Bathe the eye with running water for 15 minutes. Transfer to hospital for specialist examination.

Ingestion: Wash out mouth with water. Do not induce vomiting. Give 1 cup of water to drink every 10 minutes. If unconscious, check for breathing and apply artificial respiration if necessary. If unconscious and breathing is OK, place in the recovery position. Transfer to hospital as soon as possible.

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. If unconscious and breathing is OK, place in the recovery position. If conscious, ensure the casualty sits or lies down. If breathing becomes bubbly, have the casualty sit and provide oxygen if available. Transfer to hospital as soon as possible.

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

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Unique Polymer Systems LTD

Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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Inhalation: There may be shortness of breath with a burning sensation in the throat. 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: Not applicable.

## **Section 5: Fire-fighting measures**

### **5.1. Extinguishing media**

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used. Use water spray to cool containers.

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

Exposure hazards: Corrosive. 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: Notify the police and fire brigade immediately. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not attempt to take action without suitable protective clothing - see section 8 of SDS. 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: Clean-up should be dealt with only by qualified personnel familiar with the specific substance. Absorb into dry earth or sand. 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.

## **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: Store in a cool, well ventilated area. Keep container tightly closed.

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**

Hazardous ingredients:

2,2'-IMINODIETHYLAMINE

Workplace exposure limits:

Respirable dust

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Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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State	8 hour TWA	15 min. STEL	8 hour TWA	15 min. STEL
UK	4.3 mg/m <sup>3</sup>	-	-	-

#### 4,4'-ISOPROPYLIDENEDIPHENOL

UK	5 mg/m <sup>3</sup>	5 mg/m <sup>3</sup>	-	-
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#### 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: Tightly fitting safety goggles. Ensure eye bath is to hand.

Skin protection: Impermeable protective clothing.

## Section 9: Physical and chemical properties

### 9.1. Information on basic physical and chemical properties

State: Liquid

Colour: Amber

Odour: Ammoniacal

Solubility in water: Insoluble

Viscosity: Non-viscous

Boiling point/range°C: >200 Flash point°C: >100

Autoflammability°C: 380 Relative density: 1.0

### 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 occur on exposure to conditions or materials listed below.

### 10.4. Conditions to avoid

Conditions to avoid: Heat.

### 10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

### 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:

#### 1,2-CYCLOHEXANEDIAMINE

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Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

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ORAL	RAT	LD50	4556	mg/kg
IPR	RAT	LD50	74	mg/kg
ORL	MUS	LD50	970	mg/kg
ORL	RAT	LD50	970	mg/kg

#### 4,4'-ISOPROPYLIDENEDIPHENOL

ORL	MUS	LD50	2400	mg/kg
ORL	RAT	LD50	3250	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
Reproductive toxicity	-	Hazardous; calculated

Symptoms / routes of exposure

Skin contact: Blistering may occur. Progressive ulceration will occur if treatment is not immediate.

Eye contact: Corneal burns may occur. May cause permanent damage.

Ingestion: Corrosive burns may appear around the lips. Blood may be vomited. There may be bleeding from the mouth or nose.

Inhalation: There may be shortness of breath with a burning sensation in the throat. 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

Ecotoxicity values: No data available.

### 12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

### 12.4. Mobility in soil

Mobility: Readily absorbed into soil.

### 12.5. Results of PBT and vPvB assessment

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

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12.6. Other adverse effects  
Other adverse effects: Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

Disposal operations: Transfer to a suitable container and 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: AMINES, LIQUID, CORROSIVE, N.O.S.  
(CYCLOHEXANEDIAMINE)

### 14.3. Transport hazard class(es)

Transport class: 8

### 14.4. Packing group

Packing group: III

### 14.5. Environmental hazards

Environmentally hazardous: No Marine pollutant: No

### 14.6. Special precautions for user

Special precautions: No special precautions.

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 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.

H335: May cause respiratory irritation.

H361f: Suspected of damaging fertility.

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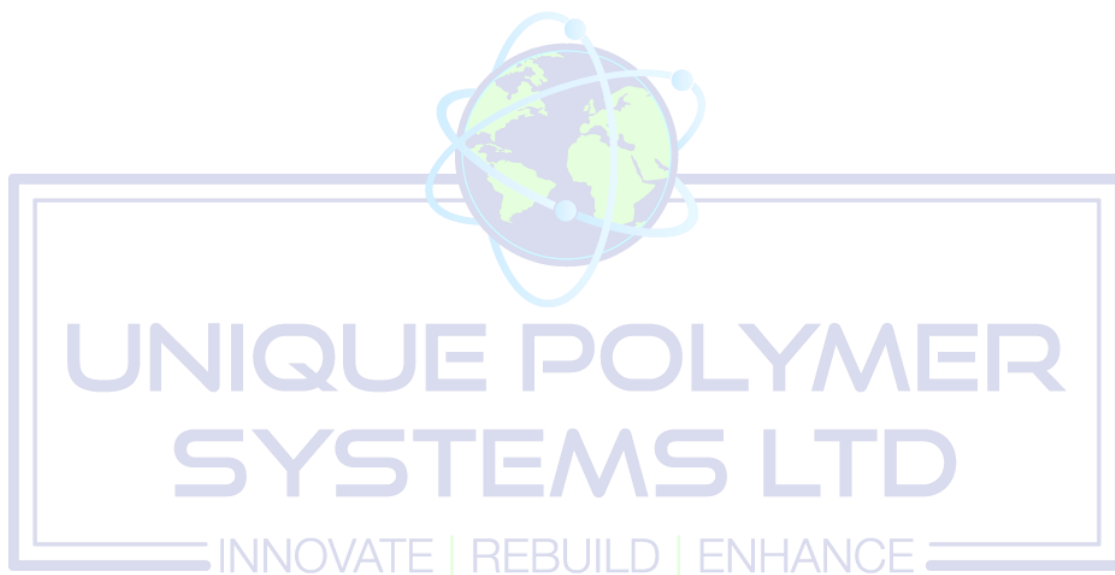
Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)



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## SECTION 1: Identification of Substance/ Preparation and Company

1.2 Product identifier  
UPS 225 HT HIGH-TEMPERATURE CERAMIC BASE

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

Unique Polymer Systems LTD  
Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)



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- Aliphatic polyamine hardener blend with inert fillers for repairing metalwork
- 1.3 Details of the supplier of the safety data sheet  
Unique Polymer Systems LTD,  
Unit 19, Link Business Centre,  
Link Way, Malvern, Worcestershire,  
WR14 1UQ  
United Kingdom  
Tel: +44 (0) 1531 63 63 00  
Email: sales@uniquepolymersystems.com
- 1.4 Emergency telephone number  
+44 (0) 1531 63 63 00 (9am to 5pm)

## Section 2: Hazards identification

### 2.1. Classification of the substance or mixture

Classification under CHIP: Sens.: R43

Classification under CLP: Aquatic Chronic 3: H412; Eye Irrit. 2: H319; Skin Irrit. 2: H315; Skin Sens. 1: H317

Most important adverse effects: May cause sensitisation by skin contact.

### 2.2. Label elements

Label elements:

Hazard statements: H315: Causes skin irritation.

H317: May cause an allergic skin reaction.

H319: Causes serious eye irritation.

H412: Harmful to aquatic life with long lasting effects.

Signal words: Warning

Hazard pictograms:

GHS07: Exclamation mark



Precautionary statements: P102: Keep out of reach of children.

P261: Avoid breathing vapours.

P264: Wash skin thoroughly after handling.

P273: Avoid release to the environment.

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302+352: IF ON SKIN: Wash with plenty of water/.

P305+351+338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

P333+313: If skin irritation or rash occurs: Get medical advice/attention.

P501: Dispose of contents/container to hazardous or special waste collection point.

Label elements under CHIP:

Hazard symbols: Irritant.



Safety phrases: S2: Keep out of the reach of children.

S24: Avoid contact with skin.

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Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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S37: Wear suitable gloves.

S46: If swallowed, seek medical advice immediately and show this container or 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

Hazardous ingredients:

EPOXY PHENOL NOVOLAC RESIN

EINECS	CAS	CHIP Classification	CLP Classification	Percent
500-108-2	28064-14-4	-	Skin Irrit. 2: H315; Eye Irrit. 2: H319;  Skin Sens. 1: H317; Aquatic Chronic 2:  H411	10- 30%

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

219-371-7	2425-79-8	Xn: R20/21; Xi: R36/38; Sens.:  R43	Acute Tox. 4: H332; Acute Tox. 4: H312;  Eye Irrit. 2: H319; Skin Irrit. 2: H315;  Skin Sens. 1: H317	1-10%
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## 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.

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

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

Inhalation: Remove casualty from exposure ensuring one's own safety whilst doing so. 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. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

Inhalation: There may be irritation of the throat with a feeling of tightness in the chest. 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: Eye bathing equipment should be available on the premises.

## Section 5: Fire-fighting measures

5.1. Extinguishing media

Extinguishing media: Suitable extinguishing media for the surrounding fire should be used.

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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 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: Refer to section 8 of SDS for personal protection details. If outside do not approach from downwind. If outside keep bystanders upwind and away from danger point. Mark out the contaminated area with signs and prevent access to unauthorised personnel. Do not create dust.

#### 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: 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.

### 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 dust in the air.

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

Storage conditions: Store in a cool, well ventilated area. Keep container tightly closed.

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.

#### 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. Respiratory protective device with particle filter.

Hand protection: Protective gloves.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin protection: Protective clothing.

Environmental: Prevent from entering in public sewers or the immediate environment.

### Section 9: Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

State: Paste

Colour: Dark grey

Odour: Barely perceptible odour

Evaporation rate: Negligible  
Oxidising: Non-oxidising (by EC criteria)

Unique Polymer Systems LTD

Unit 19 Link Business Centre, Link Way, Malvern, WR14 1UQ, United Kingdom +44(0) 1531 63 63 00

[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)

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Solubility in water: Insoluble

Viscosity: Viscous

Boiling point/range°C: >35 Flash point°C: No data available.

Relative density: 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 occur on exposure to conditions or materials listed below.

10.4. Conditions to avoid

Conditions to avoid: Heat.

10.5. Incompatible materials

Materials to avoid: Strong oxidising agents. Strong acids.

10.6. Hazardous decomposition products

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

## Section 11: Toxicological information

11.1. Information on toxicological effects

Toxicity values:

Route	Species	Test	Value	Units
ORAL	RAT	LD50	>2000	mg/kg
ORAL	RBT	LD50	>2000	mg/kg

Hazardous ingredients:

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

ORL	MUS	LD50	1100	µg/kg
ORL	RAT	LD50	1134	mg/kg

Relevant effects for mixture:

Effects	Route	Basis
Sensitisation	DRM	Hazardous; calculated

Symptoms / routes of exposure

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

Eye contact: There may be irritation and redness. The eyes may water profusely.

Ingestion: There may be soreness and redness of the mouth and throat.

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

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

## Section 12: Ecological information

### 12.1. Toxicity

Ecotoxicity values:

Species	Test	Value	Units
FISH	96H LC50	>5000	mg/l

### 12.2. Persistence and degradability

Persistence and degradability: Biodegradable.

### 12.3. Bioaccumulative potential

Bioaccumulative potential: No bioaccumulation potential.

### 12.4. Mobility in soil

Mobility: Readily absorbed into soil.

### 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: Negligible ecotoxicity.

## Section 13: Disposal considerations

### 13.1. Waste treatment methods

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

Waste code number: 08 04 09

Disposal of packaging: Dispose of in a regulated landfill site or other method for hazardous or toxic wastes.

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: UN3077

### 14.2. UN proper shipping name

Shipping name: ENVIRONMENTALLY HAZARDOUS SUBSTANCE, SOLID, N.O.S.  
(EPOXY PHENOL NOVOLAC RESIN)

### 14.3. Transport hazard class(es)

Transport class: 9

### 14.4. Packing group

Packing group: III

### 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: 3

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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

## Section 16: Other information

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: 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.

H412: Harmful to aquatic life with long lasting effects.

R20/21: Harmful by inhalation and in contact with skin.

R36/38: Irritating to eyes and skin.

R43: May cause sensitisation by skin contact.

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[sales@uniquepolymersystems.com](mailto:sales@uniquepolymersystems.com) [www.uniquepolymersystems.com](http://www.uniquepolymersystems.com)