



## SAFETY DATA SHEET FLAME RETARDANT EPOXY ER2188 PART A

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

#### 1.1. Product identifier

**Product name** FLAME RETARDANT EPOXY ER2188 PART A  
**Product No.** ER2188A  
EER2188AB25K  
EER2188K1K  
EER2188K5K  
EER2188K10K  
EER2188K25K  
EER2188RP100G  
EER2188RP100GF  
EER2188RP250G  
EER2188RP250GE  
EER2188RP250GF  
EER2188RP500GF  
EER2188RP1000G  
EER2188RP1000GF  
ZE

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

**Identified uses** Resin.  
**Uses advised against** No specific uses advised against are identified.

#### 1.3. Details of the supplier of the safety data sheet

**Supplier** ELECTROLUBE. A division of HK  
WENTWORTH LTD  
ASHBY PARK, COALFIELD WAY,  
ASHBY DE LA ZOUCH, LEICESTERSHIRE  
LE65 1JR  
UNITED KINGDOM  
+44 (0)1530 419600  
+44 (0)1530 416640  
info@hkw.co.uk

#### 1.4. Emergency telephone number

+44 (0) 1420 85848 between 08.30 - 17.00 Monday to Thursday and 08.30 - 12.30 Friday

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

**Classification (1999/45/EEC)** Xi;R36/38. R43. R52/53.

#### 2.2. Label elements

**Contains** EPOXY RESIN (Number average MW <= 700 )  
Neodecanoic acid glycidyl ester

#### Labelling



Irritant

**FLAME RETARDANT EPOXY ER2188 PART A****Risk Phrases**

R43	May cause sensitisation by skin contact.
R36/38	Irritating to eyes and skin.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Safety Phrases**

S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S37	Wear suitable gloves.
S24/25	Avoid contact with skin and eyes.
P5	Contains epoxy constituents. See information supplied by the manufacturer.

**2.3. Other hazards****SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS****3.2. Mixtures**

<b>EPOXY RESIN (Number average MW &lt;= 700 )</b>	<b>10-30%</b>
CAS-No.: 25068-38-6	EC No.: 500-033-5
Classification (EC 1272/2008) Skin Irrit. 2 - H315 Eye Irrit. 2 - H319 Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC) R43 Xi;R36/38 N;R51/53
<b>Neodecanoic acid glycidyl ester</b>	<b>1-5%</b>
CAS-No.: 26761-45-5	EC No.: 247-979-2
Classification (EC 1272/2008) Skin Sens. 1 - H317 Aquatic Chronic 2 - H411	Classification (67/548/EEC) N;R51/53. R43.
<b>Formaldehyde, polymer with 1,3 dimethylbenzene</b>	<b>1-5%</b>
CAS-No.: 26139-75-3	EC No.:
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xi;R36/38,R37.

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition Comments**

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures****Inhalation**

Move the exposed person to fresh air at once. Keep the affected person warm and at rest. Get prompt medical attention.

**Ingestion**

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Promptly get affected person to drink large volumes of water to dilute the swallowed chemical. Get medical attention immediately!

**Skin contact**

Rinse the skin immediately with lots of water. Get medical attention if any discomfort continues.

## FLAME RETARDANT EPOXY ER2188 PART A

### Eye contact

Remove victim immediately from source of exposure. Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Continue to rinse for at least 15 minutes and get medical attention.

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

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

Treat symptomatically

## SECTION 5: FIREFIGHTING MEASURES

### 5.1. Extinguishing media

#### Extinguishing media

Fire can be extinguished using: Foam. Alcohol resistant foam. Dry chemicals, sand, dolomite etc.

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

#### Hazardous combustion products

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

#### Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

### 5.3. Advice for firefighters

#### Special Fire Fighting Procedures

Use water to keep fire exposed containers cool and disperse vapours.

#### Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

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

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

Absorb in vermiculite, dry sand or earth and place into containers. Wear necessary protective equipment. Wash thoroughly after dealing with a spillage.

### 6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Keep away from heat, sparks and open flame.

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

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

#### Ingredient Comments

WEL = Workplace Exposure Limits

### 8.2. Exposure controls

#### Protective equipment

**FLAME RETARDANT EPOXY ER2188 PART A****Process conditions**

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

**Engineering measures**

Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

**Respiratory equipment**

No specific recommendation made, but respiratory protection must be used if the general level exceeds the recommended occupational exposure limit. It is recommended to use respiratory equipment with combination filter, type A2/P2. EN14387

**Hand protection**

Use suitable protective gloves if risk of skin contact. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Chemical resistant gloves required for prolonged or repeated contact. Neoprene, nitrile, polyethylene or PVC. Gloves should conform to EN374

**Eye protection**

Wear approved, tight fitting safety glasses where splashing is probable. EN166

**Other Protection**

Wear appropriate clothing to prevent any possibility of skin contact.

**Hygiene measures**

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Wash promptly if skin becomes wet or contaminated. When using do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

<b>Appearance</b>	Viscous Liquid
<b>Colour</b>	Black.
<b>Initial boiling point and boiling range</b>	>200 (>392 F)
<b>Relative density</b>	>=1.830 @ 20 °c (68 F)
<b>Vapour pressure</b>	0.013 kPa @ 20 °c (68 F)
<b>Viscosity</b>	150000 cps @ 23 °c (73 F)
<b>Flash point</b>	>200 (392 F) CC (Closed cup).

**9.2. Other information**

## SECTION 10: STABILITY AND REACTIVITY

**10.1. Reactivity**

No specific reactivity hazards associated with this product.

**10.2. Chemical stability**

Stable under normal temperature conditions.

**10.3. Possibility of hazardous reactions**

Not available.

**Hazardous Polymerisation**

Will not polymerise.

**10.4. Conditions to avoid**

Avoid contact with acids and oxidising substances.

**10.5. Incompatible materials****Materials To Avoid**

Strong acids. Strong alkalis. Strong oxidising substances.

**10.6. Hazardous decomposition products**

Fire creates: Vapours/gases/fumes of: Carbon monoxide (CO). Carbon dioxide (CO2).

## SECTION 11: TOXICOLOGICAL INFORMATION

## FLAME RETARDANT EPOXY ER2188 PART A

### 11.1. Information on toxicological effects

#### **Inhalation**

No specific health warnings noted.

#### **Ingestion**

May cause stomach pain or vomiting.

#### **Skin contact**

Irritating to skin. May cause allergic contact eczema. May cause sensitisation by skin contact.

#### **Eye contact**

Irritating to eyes.

#### **Route of entry**

Ingestion. Skin and/or eye contact.

#### Toxicological information on ingredients.

#### EPOXY RESIN (Number average MW <= 700 ) (CAS: 25068-38-6)

##### **Toxic Dose 1 - LD 50**

>5000 mg/kg (oral rat)

##### **Toxic Dose 2 - LD 50**

>20000 mg/kg (oral rat)

## SECTION 12: ECOLOGICAL INFORMATION

#### **Ecotoxicity**

Dangerous for the environment if discharged into watercourses.

#### 12.1. Toxicity

LC 50, 96 Hrs, Fish mg/l 1.2

EC 50, 48 Hrs, Daphnia, mg/l 2.7

IC 50, 72 Hrs, Algae, mg/l 9.4

#### Ecological information on ingredients.

#### EPOXY RESIN (Number average MW <= 700 ) (CAS: 25068-38-6)

LC 50, 96 Hrs, Fish mg/l

3.1

EC 50, 48 Hrs, Daphnia, mg/l

1.4-1.7

IC 50, 72 Hrs, Algae, mg/l

220

#### 12.2. Persistence and degradability

##### **Degradability**

There are no data on the degradability of this product.

#### 12.3. Bioaccumulative potential

##### **Bioaccumulative potential**

No data available on bioaccumulation.

#### 12.4. Mobility in soil

#### 12.5. Results of PBT and vPvB assessment

This product does not contain any PBT or vPvB substances.

#### 12.6. Other adverse effects

## SECTION 13: DISPOSAL CONSIDERATIONS

**FLAME RETARDANT EPOXY ER2188 PART A****General information**

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

**13.1. Waste treatment methods**

Dispose of waste and residues in accordance with local authority requirements.

**SECTION 14: TRANSPORT INFORMATION**

<b>General</b>	The product is not covered by international regulation on the transport of dangerous goods (IMDG, IATA, ADR/RID).
<b>Road Transport Notes</b>	Not Classified
<b>Rail Transport Notes</b>	Not classified.
<b>Sea Transport Notes</b>	Not classified.
<b>Air Transport Notes</b>	Not classified.

**14.1. UN number**

Not applicable.

**14.2. UN proper shipping name**

Not applicable.

**14.3. Transport hazard class(es)**

**ADR/RID/ADN Class** Not classified for transportation.

**Transport Labels**

No transport warning sign required.

**14.4. Packing group**

Not applicable.

**14.5. Environmental hazards****Environmentally Hazardous Substance/Marine Pollutant**

No.

**14.6. Special precautions for user**

Not applicable.

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

Not applicable.

**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Uk Regulatory References**

Chemicals (Hazard Information & Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

**Environmental Listing**

Control of Pollution Act 1974. Control of Pollution (Special Waste Regulations) Act 1980. Rivers (Prevention of Pollution) Act 1961.

**Approved Code Of Practice**

Classification and Labelling of Substances and Preparations Dangerous for Supply. Safety Data Sheets for Substances and Preparations.

**Guidance Notes**

Workplace Exposure Limits EH40.

**EU Legislation**

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

System of specific information relating to Dangerous Preparations. 2001/58/EC.

## FLAME RETARDANT EPOXY ER2188 PART A

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

**Authorisations (Title VII Regulation 1907/2006)**

No specific authorisations are noted for this product.

**Restrictions (Title VIII Regulation 1907/2006)**

No specific restrictions of use are noted for this product.

**15.2. Chemical Safety Assessment**

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### SECTION 16: OTHER INFORMATION

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**Revision Comments**

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

**Issued By** Helen O'Reilly

**Revision Date** JULY 2012

**Revision** 4

**SDS No.** 11484

**Risk Phrases In Full**

- R52/53 Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
- R36/38 Irritating to eyes and skin.
- R37 Irritating to respiratory system.
- R43 May cause sensitisation by skin contact.
- R51/53 Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

**Hazard Statements In Full**

- H319 Causes serious eye irritation.
- H315 Causes skin irritation.
- H412 Harmful to aquatic life with long lasting effects.
- H317 May cause an allergic skin reaction.
- H411 Toxic to aquatic life with long lasting effects.

Disclaimer

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.



## SAFETY DATA SHEET FLAME RETARDANT EPOXY ER2188 PART B

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

#### 1.1. Product identifier

<b>Product name</b>	FLAME RETARDANT EPOXY ER2188 PART B
<b>Product No.</b>	ER2188B EER2188BB5K EER2188K1K EER2188K5K EER2188K25K EER2188RP50G EER2188RP100G EER2188100GF EER2188RP250G EER2188RP250GE EER2188RP250GF EER2188RP500G EER2188RP500GF EER2188RP1000G EER21881000GF EER2188K10K ZE

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

<b>Identified uses</b>	Resin.
<b>Uses advised against</b>	At this moment in time we do not have information on use restrictions. They will be included in this safety data sheet when available

#### 1.3. Details of the supplier of the safety data sheet

<b>Supplier</b>	ELECTROLUBE. A division of HK WENTWORTH LTD ASHBY PARK, COALFIELD WAY, ASHBY DE LA ZOUCH, LEICESTERSHIRE LE65 1JR UNITED KINGDOM +44 (0)1530 419600 +44 (0)1530 416640 info@hkw.co.uk
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#### 1.4. Emergency telephone number

+44 (0)1530 419600 between 8.30am - 5.00pm Mon – Fri

### SECTION 2: HAZARDS IDENTIFICATION

#### 2.1. Classification of the substance or mixture

<b>Classification (1999/45/EEC)</b>	Xn;R21/22. Repr. Cat. 3;R62, R63. C;R34. R43. N;R50/53.
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#### **Environment**

Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment. Do not empty into drains, dispose of this material and its container at hazardous or special waste collection point. Dispose of waste and residues in accordance with local authority requirements.

#### 2.2. Label elements



## FLAME RETARDANT EPOXY ER2188 PART B

**Contains**

ISOPHORONEDIAMINE  
 NONYLPHENOL  
 TRIMETHYLHEXAMETHYLENE DIAMINE  
 TETRADECYLAMINE

**Labelling**



Corrosive



Harmful



Dangerous for the environment

**Risk Phrases**

R21/22	Harmful in contact with skin and if swallowed.
R34	Causes burns.
R43	May cause sensitisation by skin contact.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62	Possible risk of impaired fertility.
R63	Possible risk of harm to the unborn child.

**Safety Phrases**

S25	Avoid contact with eyes.
S26	In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S36/37/39	Wear suitable protective clothing, gloves and eye/face protection.
S45	In case of accident or if you feel unwell, seek medical advice immediately (show label where possible).
S57	Use appropriate containment to avoid environmental contamination.
S60	This material and its container must be disposed of as hazardous waste.
S61	Avoid release to the environment. Refer to special instructions/safety data sheets.

**2.3. Other hazards**

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**3.2. Mixtures**

<b>ISOPHORONEDIAMINE</b>	<b>30-60%</b>
CAS-No.: 2855-13-2	EC No.: 220-666-8
Classification (EC 1272/2008) Acute Tox. 4 - H302 Acute Tox. 4 - H312 Skin Corr. 1B - H314 Skin Sens. 1 - H317 Aquatic Chronic 3 - H412	Classification (67/548/EEC) C;R34 Xn;R21/22 R43 R52/53
<b>NONYLPHENOL</b>	<b>10-30%</b>
CAS-No.: 25154-52-3	EC No.: 246-672-0
Classification (EC 1272/2008) Acute Tox. 4 - H302 Skin Corr. 1B - H314 Repr. 2 - H361fd Aquatic Acute 1 - H400 Aquatic Chronic 1 - H410	Classification (67/548/EEC) Repr. Cat. 3;R62,R63 C;R34 Xn;R22 N;R50/53

## FLAME RETARDANT EPOXY ER2188 PART B

<b>TRIMETHYLHEXAMETHYLENE DIAMINE</b>		<b>10-30%</b>
<b>CAS-No.: 25620-58-0</b>	<b>EC No.: 247-134-8</b>	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R22. C;R34. R43,R52/53.	
<b>TETRADECYLAMINE</b>		<b>5-10%</b>
<b>CAS-No.: 61788-46-3</b>	<b>EC No.: 262-977-1</b>	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R22. C;R35. N;R50.	
<b>Salicylic acid</b>		<b>1-5%</b>
<b>CAS-No.: 69-72-7</b>	<b>EC No.: 200-712-3</b>	
Classification (EC 1272/2008) Not classified.	Classification (67/548/EEC) Xn;R22. Xi;R36.	

The Full Text for all R-Phrases and Hazard Statements are Displayed in Section 16.

**Composition Comments**

Ingredients not listed are classified as non-hazardous or at a concentration below reportable levels.

**SECTION 4: FIRST AID MEASURES****4.1. Description of first aid measures****Inhalation**

Move the exposed person to fresh air at once. Get medical attention. Provide rest, warmth and fresh air.

**Ingestion**

DO NOT INDUCE VOMITING! Rinse mouth thoroughly. Drink plenty of water. Get medical attention immediately!

**Skin contact**

Wash the skin immediately with soap and water. Get medical attention promptly if symptoms occur after washing.

**Eye contact**

Make sure to remove any contact lenses from the eyes before rinsing. Promptly wash eyes with plenty of water while lifting the eye lids. Get medical attention immediately. Continue to rinse.

**4.2. Most important symptoms and effects, both acute and delayed****4.3. Indication of any immediate medical attention and special treatment needed**

Treat symptomatically

**SECTION 5: FIREFIGHTING MEASURES****5.1. Extinguishing media****Extinguishing media**

Use fire-extinguishing media appropriate for surrounding materials. Fire can be extinguished using: Water spray. Foam. Alcohol resistant foam. Carbon dioxide (CO<sub>2</sub>).

**5.2. Special hazards arising from the substance or mixture****Hazardous combustion products**

Thermal decomposition or combustion may liberate carbon oxides and other toxic gases or vapours.

## FLAME RETARDANT EPOXY ER2188 PART B

### Unusual Fire & Explosion Hazards

No unusual fire or explosion hazards noted.

### Specific hazards

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Ammonia or amines. Nitrous gases (NO<sub>x</sub>).

### 5.3. Advice for firefighters

### Special Fire Fighting Procedures

Avoid breathing fire vapours. Move container from fire area if it can be done without risk.

### Protective equipment for fire-fighters

Self contained breathing apparatus and full protective clothing must be worn in case of fire.

## SECTION 6: ACCIDENTAL RELEASE MEASURES

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

Wear protective clothing as described in Section 8 of this safety data sheet.

### 6.2. Environmental precautions

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

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

DO NOT touch spilled material. Absorb in vermiculite, dry sand or earth and place into containers. Flush with plenty of water to clean spillage area. Do not contaminate water sources or sewer. Clean-up personnel should use respiratory and/or liquid contact protection.

### 6.4. Reference to other sections

Wear protective clothing as described in Section 8 of this safety data sheet. See section 11 for additional information on health hazards. The product contains a substance which is hazardous to aquatic organisms and which may cause long term adverse effects in the aquatic environment. See section 12 as well. Collect and dispose of spillage as indicated in section 13.

## SECTION 7: HANDLING AND STORAGE

### 7.1. Precautions for safe handling

Avoid spilling, skin and eye contact. Avoid inhalation of vapours.

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

Store in tightly closed original container in a dry, cool and well-ventilated place. Keep in original container.

### Storage Class

Corrosive storage.

### 7.3. Specific end use(s)

The identified uses for this product are detailed in Section 1.2.

## SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

### 8.1. Control parameters

### 8.2. Exposure controls

#### Protective equipment



#### Process conditions

Use engineering controls to reduce air contamination to permissible exposure level. Provide eyewash station.

#### Engineering measures

Provide sufficient ventilation during operations which cause vapour formation. Provide adequate ventilation, including appropriate local extraction, to ensure that the defined occupational exposure limit is not exceeded.

#### Respiratory equipment

Respiratory protection must be used if air contamination exceeds acceptable level. It is recommended to use respiratory equipment with combination filter, type A2/P2. EN14387 When spraying use suitable air-supplied respirator.

## FLAME RETARDANT EPOXY ER2188 PART B

### Hand protection

Use protective gloves made of: Rubber, neoprene or PVC. The most suitable glove must be chosen in consultation with the gloves supplier, who can inform about the breakthrough time of the glove material. Gloves should conform to EN374

### Eye protection

Wear approved chemical safety goggles where eye exposure is reasonably probable. EN166

### Other Protection

Wear appropriate clothing to prevent any possibility of liquid contact and repeated or prolonged vapour contact.

### Hygiene measures

DO NOT SMOKE IN WORK AREA! Wash hands at the end of each work shift and before eating, smoking and using the toilet. Promptly remove any clothing that becomes contaminated. Wash promptly with soap & water if skin becomes contaminated. Use appropriate skin cream to prevent drying of skin. When using do not eat, drink or smoke.

## SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

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

Appearance	Liquid
Colour	Brown.
Odour	Characteristic.
Solubility	Slightly soluble in water.
Relative density	0.920 @ 20 C (68 F)
Viscosity	200 cps @ 23 C (73 F)

### 9.2. Other information

## SECTION 10: STABILITY AND REACTIVITY

### 10.1. Reactivity

No specific reactivity hazards associated with this product.

### 10.2. Chemical stability

Stable under normal temperature conditions.

### 10.3. Possibility of hazardous reactions

Not available.

### Hazardous Polymerisation

Will not polymerise.

### 10.4. Conditions to avoid

### 10.5. Incompatible materials

#### Materials To Avoid

Strong acids. Strong alkalis. Strong oxidising substances.

### 10.6. Hazardous decomposition products

Fire creates: Toxic gases/vapours/fumes of: Carbon monoxide (CO). Carbon dioxide (CO<sub>2</sub>). Ammonia or amines.

## SECTION 11: TOXICOLOGICAL INFORMATION

### 11.1. Information on toxicological effects

#### Inhalation

Harmful by inhalation. Irritating to respiratory system.

#### Ingestion

Harmful if swallowed.

#### Skin contact

Causes burns. May cause sensitisation by skin contact. Product has a defatting effect on skin. Prolonged contact may cause dryness of the skin. May cause allergic contact eczema.

#### Eye contact

Spray and vapour in the eyes may cause irritation and smarting. May cause chemical eye burns.

**FLAME RETARDANT EPOXY ER2188 PART B****Health Warnings**

Prolonged inhalation of high concentrations may damage respiratory system.

Toxicological information on ingredients.**TRIMETHYLHEXAMETHYLENE DIAMINE (CAS: 25620-58-0)**

Toxic Dose 1 - LD 50

910 mg/kg (oral rat)

**SECTION 12: ECOLOGICAL INFORMATION****Ecotoxicity**

Dangerous for the environment if discharged into watercourses.

**12.1. Toxicity**Ecological information on ingredients.**TRIMETHYLHEXAMETHYLENE DIAMINE (CAS: 25620-58-0)**

EC 50, 48 Hrs, Daphnia, mg/l

31.5

IC 50, 72 Hrs, Algae, mg/l

29.5

**12.2. Persistence and degradability****Degradability**

There are no data on the degradability of this product.

**12.3. Bioaccumulative potential****Bioaccumulative potential**

No data available on bioaccumulation.

**12.4. Mobility in soil****12.5. Results of PBT and vPvB assessment**

This product does not contain any PBT or vPvB substances.

**12.6. Other adverse effects****SECTION 13: DISPOSAL CONSIDERATIONS****General information**

Waste to be treated as controlled waste. Disposal to licensed waste disposal site in accordance with local Waste Disposal Authority.

**13.1. Waste treatment methods**

Dispose of waste and residues in accordance with local authority requirements.

**SECTION 14: TRANSPORT INFORMATION****14.1. UN number**

UN No. (ADR/RID/ADN) 1760

UN No. (IMDG) 1760

UN No. (ICAO) 1760

**14.2. UN proper shipping name**

Proper Shipping Name CORROSIVE LIQUID, N.O.S. (ISOPHORONEDIAMINE, NONYLPHENOL)

**14.3. Transport hazard class(es)**

ADR/RID/ADN Class 8

ADR/RID/ADN Class Class 8: Corrosive substances.

**FLAME RETARDANT EPOXY ER2188 PART B**

ADR Label No.	8
IMDG Class	8
ICAO Class/Division	8
Transport Labels	

**14.4. Packing group**

ADR/RID/ADN Packing group	III
IMDG Packing group	III
ICAO Packing group	III

**14.5. Environmental hazards**

Environmentally Hazardous Substance/Marine Pollutant

**14.6. Special precautions for user**

EMS	F-A, S-B
Emergency Action Code	2X
Hazard No. (ADR)	80
Tunnel Restriction Code	(E)

**14.7. Transport in bulk according to Annex II of MARPOL73/78 and the IBC Code**

No information required.

**SECTION 15: REGULATORY INFORMATION****15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture****Uk Regulatory References**

Chemicals (Hazard Information &amp; Packaging) Regulations.

The Control of Substances Hazardous to Health Regulations 2002 (S.I 2002 No. 2677) with amendments.

**Environmental Listing**

Rivers (Prevention of Pollution) Act 1961. Control of Pollution Act 1974.

**Guidance Notes**

Workplace Exposure Limits EH40.

**EU Legislation**

Dangerous Substance Directive 67/548/EEC.

Dangerous Preparations Directive 1999/45/EC.

System of specific information relating to Dangerous Preparations. 2001/58/EC.

Commission Directive 2000/39/EC of 8 June 2000 establishing a first list of indicative occupational exposure limit values in implementation of Council Directive 98/24/EC on the protection of the health and safety of workers from the risks related to chemical agents at work.

Regulation (EC) No 1907/2006 of the European Parliament and of the Council of 18 December 2006 concerning the Registration, Evaluation, Authorisation and Restriction of Chemicals (REACH), establishing a European Chemicals Agency, amending Directive 1999/45/EC and repealing Council Regulation (EEC) No 793/93 and Commission Regulation (EC) No 1488/94 as well as Council Directive 76/769/EEC and Commission Directives 91/155/EEC, 93/67/EEC, 93/105/EC and 2000/21/EC, including amendments.

**FLAME RETARDANT EPOXY ER2188 PART B****Authorisations (Title VII Regulation 1907/2006)**

No specific authorisations are noted for this product.

**Restrictions (Title VIII Regulation 1907/2006)**

No specific restrictions of use are noted for this product.

**15.2. Chemical Safety Assessment****SECTION 16: OTHER INFORMATION****Revision Comments**

Revised in accordance with CHIP3 and EU Directives 1999/45/EC and 2001/58/EC

**Issued By** Helen O'Reilly**Revision Date** JULY 2012**Revision** 5**SDS No.** 10668**Risk Phrases In Full**

R34	Causes burns.
R35	Causes severe burns.
R22	Harmful if swallowed.
R21/22	Harmful in contact with skin and if swallowed.
R52/53	Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R36	Irritating to eyes.
R43	May cause sensitisation by skin contact.
R63	Possible risk of harm to the unborn child.
R62	Possible risk of impaired fertility.
R50/53	Very toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R50	Very toxic to aquatic organisms.

**Hazard Statements In Full**

H314	Causes severe skin burns and eye damage.
H302	Harmful if swallowed.
H312	Harmful in contact with skin.
H412	Harmful to aquatic life with long lasting effects.
H317	May cause an allergic skin reaction.
H361fd	Suspected of damaging fertility or the unborn child.
H410	Very toxic to aquatic life with long lasting effects.
H400	Very toxic to aquatic life.

**Disclaimer**

This information relates only to the specific material designated and may not be valid for such material used in combination with any other materials or in any process. Such information is, to the best of the company's knowledge and belief, accurate and reliable as of the date indicated. However, no warranty guarantee or representation is made to its accuracy, reliability or completeness. It is the user's responsibility to satisfy himself as to the suitability of such information for his own particular use.