SAFETY DATA SHEET

AT30 EPOXY HARDENER – FAST

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name: AT30 EPOXY HARDENER - FAST
Company: Easy Composites Ltd
Unit 39
Park Hall Business Village
Longton, Stoke-on-Trent
ST3 5XA
United Kingdom

Email: sales@easycomposites.co.uk
Telephone: 01782 454499

2. HAZARDS IDENTIFICATION

Main hazards:
The product is harmful following acute exposure to it and poses a serious health threat if inhaled, ingested, or brought into contact with the skin.
The product is highly corrosive and, if brought into contact with the skin, causes serious burning, with the rapid destruction of the entire thickness of skin tissue.
If brought into contact with the skin, the product may cause sensitisation of the skin.
This product is a threat to the environment; it is harmful to aquatic organisms following acute exposure.
In the long term this product may have negative effects on the aquatic environment, because it is not easily biodegradable and/or bioaccumulable.
This product is harmful – it is suspected that it can impair human fertility.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Conc.</th>
<th>CAS</th>
<th>EINECS</th>
<th>CAS Symbols/Risk phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>M-phenylenebis(methylamine); 1,3-Benzenedimethaneamine</td>
<td>30 - 50%</td>
<td>1477-55-0</td>
<td>216-032-5</td>
<td>Xn,Xi,C; R20/22-35-43-52/53</td>
</tr>
<tr>
<td>3-3’-ethyleneoxybis(propylamine)</td>
<td>20 - 30%</td>
<td>2997-01-5</td>
<td>221-067-4</td>
<td>Xn,Xi,C; R21-34-43</td>
</tr>
<tr>
<td>4,4’-isopropylidenediphenol</td>
<td>20 - 30%</td>
<td>80-05-7</td>
<td>201-245-8</td>
<td>3,Xi; R37-41-43-62</td>
</tr>
<tr>
<td>Polyoxypropyldiamin</td>
<td>10-20%</td>
<td>9046-10-0</td>
<td></td>
<td>C; R34</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Skin contact
Immediately take off all contaminated clothing.
Remove the product with a cloth or absorbent paper. Do not use solvents.
Wash with plenty of water and soap.
Seek medical advice.

Eye contact
Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. Seek medical advice.
Do not use eyewash or ointment of any kind before obtaining an examination or advice
Inhalation
Ventilate the premises. The patient is to be removed immediately from the contaminated premises to rest in a well ventilated area. Call a physician.

Ingestion
Do not under any circumstance induce vomiting. Seek medical advice immediately.

5. FIRE FIGHTING MEASURES

Extinguishing media
Use as appropriate: carbon dioxide (CO2), dry chemical, foam.

Fire hazards
Corrosive. Burning produces irritating, toxic and obnoxious fumes.

Protective equipment
Wear suitable respiratory equipment when necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions
Ensure adequate ventilation of the working area. Evacuate personnel to a safe area. Wear suitable protective equipment.

Environmental precautions
Limit leakages with earth or sand.

Clean up methods
If the product has flown off into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the responsible authorities.
Rapidly collect the product. To do so, wear a mask and protective clothing.
If the product is in a liquid form, stop it from entering the drainage system.
Recover the product for re-use if possible, or for elimination in compliance with waste disposal regulations in force. The product might, where appropriate, be absorbed by inert material.
After the product has been removed, rinse the involved area and materials with water that must be disposed in compliance with regulations in force.

7. HANDLING AND STORAGE

Handling
Avoid contact with and inhalation of vapours and/or dusts. See also paragraph 8 below.
Do not eat or drink or smoke while working. Wash hands before breaks and at the end of work. Maintain sufficient personal care.

Incompatible materials:
The product reacts with acids, isocyanates, oxidants as well as epoxy, chlorinated and carbonylic compounds.

Storage conditions
The product is moisture sensitive. Keep in a dry place in the original containers tightly closed. Instructions regarding storage facilities:
Avoid exposition to low temperature (T > 15°C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures
Ensure adequate ventilation of the working area.

Respiratory protection
Required where ventilation/aspiration is insufficient or exposure is prolonged, or for applications in which the product is sprayed or heated.
Required in case of machining or applications that release dusts.

Hand protection
Chemical resistant gloves (PVC)

Eye protection
Approved safety goggles.

Protective equipment
Wear chemical protective clothing.

Protection for skin
Use clothing that provides complete protection to the skin.
Available Exposure Limits (ACGIH) for substances of section 3: None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description
Liquid.

Colour
Pale yellow.

Odour
Ammoniacal.

Flash point
> 100 °C (DIN 51758)

Specific gravity ASTM D1475:
1,04 gr/ml (25°C)

Dynamic viscosity
30 - 80 mPa.s (25°C)
EN13702-2:

10. STABILITY AND REACTIVITY

<table>
<thead>
<tr>
<th>Stability</th>
<th>Stable under normal conditions.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hazardous decomposition products</td>
<td>It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents.</td>
</tr>
<tr>
<td>Hazardous decomposition products upon combustion CO, CO2, NH3, NOX and other nitrogen containing compounds are formed.</td>
<td></td>
</tr>
</tbody>
</table>

11. TOXICOLOGICAL INFORMATION

No toxicological data related to the preparation are available.
When available, the information relating to the main components are listed below.

Polyoxypropylenediamin

**Acute toxicity**
- LD50 (oral): 2880 mg/kg (rat)
- LC50 (dermal): 2980 mg/kg (rabbit)

**Chronic toxicity**
- Can cause dermatitis. Lung damage may be caused by repeated and prolonged exposure to the product.

**Sensitization**
- Not sensitizing.
- Irritating to skin (corrosive): Draize Method 6.40-8.00/8.0 (rabbit)
- Irritating to eyes (irritant): Draize Method 80.00-110.00/110 (rabbit)

12. ECOLOGICAL INFORMATION

**General information**
Adopt sound working practices, so that the product is not released into the environment. When available, the information relating to the main components are listed below.

Polyoxypropylenediamin

**Leuciscus idus/CL50 (96h) > 220 mg/l**

Not readily biodegradable.

13. DISPOSAL CONSIDERATIONS

**General information**
Dispose of in compliance with all local and national regulations.

14. TRANSPORT INFORMATION

**ADR/RID**
- **UN**: 2735
- **Packing group**: II
- **Class**: 8
- **Proper Shipping Name**: POLYAMINES, LIQUID, CORROSIVE, N.O.S. [Benzendimethanamin]
- **Hazard ID**: 80

**IMDG**
- **UN**: 2735
- **Packing group**: II
- **Class**: 8
- **EmS Code**: F-A S-B
- **Marine pollutant**

**IATA**
- **UN**: 2735
- **Packing group**: II
- **Maximum quantity (Passenger)**: 5L
- **Packing Instruction (Passenger)**: 818
15. REGULATORY INFORMATION

Labelling
The product is classified in accordance with 67/548/EEC.

Symbols
C – Corrosive

Risk phrases
R20/21/22 - Harmful in contact with skin and if swallowed.
R43 - May cause sensitisation by skin contact.

Safety phrases
R20/22 - Harmful by inhalation and if swallowed.
R21 - Harmful in contact with skin and if swallowed.
R34 - Causes burns.
R35 - Causes severe burns
R43 - May cause sensitisation by skin contact.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
R62 - Possible risk of impaired fertility.
S26 - In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S28 - After contact with skin, wash immediately with plenty of soap and water.
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 the label where possible).

16. OTHER INFORMATION

Text of risk phrases in Section 3.
R20/22 - Harmful by inhalation and if swallowed.
R21 - Harmful in contact with skin and if swallowed.
R34 - Causes burns.
R35 - Causes severe burns
R43 - May cause sensitisation by skin contact.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information
The information supplied in this Safety Data Sheet is designed only as guidance for the safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.

Revision History
19/07/11 – Combined epoxy resin and epoxy resin hardener MSDS datasheets into one file.
SAFETY DATA SHEET
AT30 EPOXY HARDENER – SLOW

1. IDENTIFICATION OF THE SUBSTANCE / PREPARATION AND THE COMPANY

Product name: AT30 EPOXY HARDENER – SLOW
Company: Easy Composites Ltd
Unit 39
Park Hall Business Village
Longton, Stoke-on-Trent
ST3 5XA
United Kingdom
Email: sales@easycomposites.co.uk
Telephone: 01782 454499

2. HAZARDS IDENTIFICATION

Main hazards:
- The product is harmful following acute exposure to it and poses a serious health threat if inhaled, ingested, or brought into contact with the skin.
- The product is highly corrosive and, if brought into contact with the skin, causes serious burning, with the rapid destruction of the entire thickness of skin tissue.
- If brought into contact with the skin, the product may cause sensitisation of the skin.
- This product is a threat to the environment; it is harmful to aquatic organisms following acute exposure.
- In the long term this product may have negative effects on the aquatic environment, because it is not easily biodegradable and/or bioaccumulable.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>Conc.</th>
<th>CAS</th>
<th>EINECS</th>
<th>CAS Symbols/Risk phrases</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyoxypropyldiamin</td>
<td>30-50%</td>
<td>9046-10-0</td>
<td></td>
<td>C; R34</td>
</tr>
<tr>
<td>3-aminomethyl-3,5,5-trimethylcyclohexylamine</td>
<td>30 - 50%</td>
<td>2855-13-2</td>
<td>220-666-8</td>
<td>Xn,Xi,C; R21/22-34-43-52-53</td>
</tr>
<tr>
<td>2,2,4-(2,4,4-trimethylehexamethylene)amin</td>
<td>5 - 10%</td>
<td>25620-58-0</td>
<td>247-134-84</td>
<td>Xn,Xi,C; R22-34-43-52-53</td>
</tr>
<tr>
<td>Benzyl alcohol</td>
<td>&lt;5%</td>
<td>80-05-7</td>
<td>201-245-8</td>
<td>3,Xi; R37-41-43-62</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Skin contact:
- Immediately take off all contaminated clothing.
- Remove the product with a cloth or absorbent paper. Do not use solvents.
- Wash with plenty of water and soap.
- Seek medical advice.

Eye contact:
- Wash immediately and thoroughly with running water, keeping eyelids raised, for at least 10 minutes. Following this, protect the eyes with sterile gauze or a clean, dry, handkerchief. Seek medical advice.
- Do not use eyewash or ointment of any kind before obtaining an examination or advice from an ophthalmologist.

Inhalation:
- Ventilate the premises. The patient is to be removed immediately from the contaminated premises to rest in a well ventilated area. Call a physician.

Ingestion:
- Do not under any circumstance induce vomiting. Seek medical advice immediately.
5. FIRE FIGHTING MEASURES

Extinguishing media  Use as appropriate: carbon dioxide (CO2), dry chemical, foam.
Fire hazards  Corrosive. Burning produces irritating, toxic and obnoxious fumes.
Protective equipment  Wear suitable respiratory equipment when necessary.

6. ACCIDENTAL RELEASE MEASURES

Personal precautions  Ensure adequate ventilation of the working area. Evacuate personnel to a safe area.
Wear suitable protective equipment.
Environmental precautions  Limit leakages with earth or sand.
If the product has flown off into a water course, into the drainage system, or has contaminated the ground or vegetation, notify the responsible authorities.
Clean up methods  Rapidly collect the product. To do so, wear a mask and protective clothing.
If the product is in a liquid form, stop it from entering the drainage system.
Recover the product for re-use if possible, or for elimination in compliance with waste disposal regulations in force. The product might, where appropriate, be absorbed by inert material.
After the product has been removed, rinse the involved area and materials with water that must be disposed in compliance with regulations in force.

7. HANDLING AND STORAGE

Handling  Avoid contact with and inhalation of vapours and/or dusts. See also paragraph 8 below.
Do not eat or drink or smoke while working. Wash hands before breaks and at the end of work. Maintain sufficient personal care.
Incompatible materials:  The product reacts with acids, isocyanates, oxidants as well as epoxy, chlorinated and carbonylic compounds.
Storage conditions  The product is moisture sensitive. Keep in a dry place in the original containers tightly closed. Instructions regarding storage facilities:
Avoid exposition to low temperature (T > 15°C).

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Engineering measures  Ensure adequate ventilation of the working area.
Respiratory protection  Required where ventilation/aspiration is insufficient or exposure is prolonged, or for applications in which the product is sprayed or heated.
Required in case of machining or applications that release dusts.
Hand protection  Chemical resistant gloves (PVC)
Eye protection  Approved safety goggles.
Protective equipment  Wear chemical protective clothing.
Protection for skin  Use clothing that provides complete protection to the skin.
Available Exposure Limits (ACGIH) for substances of section 3: None.

9. PHYSICAL AND CHEMICAL PROPERTIES

Description  Liquid.
Colour  Pale yellow.
Odour  Ammoniacal.
Flash point  > 150 °C (DIN 51758)
Solubility in water  Soluble
Specific gravity ASTM D 1475  0.93 gr/ml (25°C)
Dynamic viscosity  EN13702-2  5 - 20 mPa.s (25°C)

10. STABILITY AND REACTIVITY

Conditions to avoid  Stable under normal conditions.
### Substances to avoid
None in particular

### Hazardous decomposition products:
It may generate toxic gases on contact with oxidising mineral acids, halogenated organic substances, organic peroxides and hydroperoxides, and powerful oxidising agents. Upon combustion CO, CO₂, NH₃, NOₓ and other nitrogen containing compounds are formed.

### 11. TOXICOLOGICAL INFORMATION

No toxicological data related to the preparation are available. When available, the information relating to the main components are listed below.

**Polyoxypropylendiamin**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute toxicity</th>
<th>Chronic toxicity</th>
<th>Sensitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (oral): 2,880 mg/kg (rat)</td>
<td>Can cause dermatitis. Lung damage may be caused by repeated and prolonged exposure to the product.</td>
<td>Not sensitizing.</td>
<td>Irritating to skin (corrosive): Draize Method 6,40-8.00/8.0 (rabbit)</td>
</tr>
<tr>
<td>LC50 (dermal): 2,980 mg/kg (rabbit)</td>
<td></td>
<td></td>
<td>Irritating to eyes (irritant): Draize Method 80.00-110.00/110 (rabbit)</td>
</tr>
</tbody>
</table>

**3-aminomethyl-3,5,5-trimethylcyclohexylamine**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute toxicity</th>
<th>Sensitization</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (oral): &gt; 1,000 mg/kg (rat)</td>
<td>Not sensitizing.</td>
<td>(Magnusson-Kligman test), test-animal strongly sensitized.</td>
</tr>
</tbody>
</table>

**2,2,4-(2,4,4-)Trimethylehexamethylenediamine**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute toxicity</th>
<th>Chronic toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (oral): &gt; 900 mg/kg (rat)</td>
<td>Vapours are irritating to the respiratory system.</td>
<td></td>
</tr>
</tbody>
</table>

**Benzyl alcohol**

<table>
<thead>
<tr>
<th>Component</th>
<th>Acute toxicity</th>
<th>Chronic toxicity</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 (oral): &gt; 1,000 mg/kg (rat)</td>
<td>Expected to be readily biodegradable.</td>
<td></td>
</tr>
<tr>
<td>LD50 (dermal): 2,000 mg/kg (rabbit)</td>
<td>Acute toxicity LC/EC/IC 50 : &gt; 30 mg/l</td>
<td></td>
</tr>
<tr>
<td>LC50 (inhalation): 2000 ppm (4 h, rat)</td>
<td>Expected to be readily biodegradable.</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

### 12. ECOLOGICAL INFORMATION

**General information**
Adopt sound working practices, so that the product is not released into the environment. When available, the information relating to the main components are listed below.

**Polyoxypropylendiamin**
Leuciscus idus/CL50 (96h) > 220 mg/l
Not readily biodegradable.

**3-aminomethyl-3,5,5-trimethylcyclohexylamine**
Not expected to be readily biodegradable.
42% (Coupled Units Test)
8% (Method Ce79/831)
Acute toxicity
Fishes LC50: 110mg/l /96h
Daphnia Magna EC50: 44mg/l 24h
Scenedesmus subspicatus EC50>50mg/l /72h
Pseudomonas putida EC10 1,120 mg/l /18 h

**2,2,4-(2,4,4-)Trimethylehexamethylenediamine**
Not expected to be biodegradable.
Acute toxicity LC/EC/IC 50 : > 30 mg/l

**Benzyl alcohol**
Expected to be readily biodegradable.
Acute toxicity TLm/48h/Daphnia: 360 ppm
13. DISPOSAL CONSIDERATIONS

General information
Recover, if possible. Send to authorised disposal plants or for incineration under controlled conditions. In so doing, comply with the local and national regulations currently in force.

14. TRANSPORT INFORMATION

ADR/RID

<table>
<thead>
<tr>
<th>UN</th>
<th>Packing group</th>
<th>Class</th>
<th>Hazard ID</th>
</tr>
</thead>
<tbody>
<tr>
<td>2735</td>
<td>III</td>
<td>8</td>
<td>80</td>
</tr>
</tbody>
</table>

Proper Shipping Name
POLYAMINES, LIQUID, CORROSIVE, N.O.S.
(Isophoronediamine)

IMDG

<table>
<thead>
<tr>
<th>UN</th>
<th>Packing group</th>
<th>Class</th>
<th>Marine pollutant</th>
</tr>
</thead>
<tbody>
<tr>
<td>2735</td>
<td>III</td>
<td>8</td>
<td></td>
</tr>
</tbody>
</table>

EmS Code
F-A S-B

IATA

<table>
<thead>
<tr>
<th>UN</th>
<th>Packing group</th>
<th>Class</th>
<th>Maximum quantity</th>
<th>Packing Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>2735</td>
<td>III</td>
<td>8</td>
<td>5L (Passenger)</td>
<td>818 (Passenger)</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>60L (Cargo)</td>
<td></td>
</tr>
</tbody>
</table>

Subsidiary Risk
- P (Cargo)

15. REGULATORY INFORMATION

Labelling
The product is classified in accordance with 67/548/EEC.

Symbols
C – Corrosive

Risk phrases
R21/22 - Harmful in contact with skin and if swallowed.
R34 – Causes burns.
R43 - May cause sensitisation by skin contact.
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.
S28 - After contact with skin, wash immediately with plenty of soap and water.
S36/37/39 - Wear suitable protective clothing, gloves and eye/face protection.

16. OTHER INFORMATION

Text of risk phrases in Section 3.
R20/22 - Harmful by inhalation and if swallowed.
R21/22 - Harmful in contact with skin and if swallowed.
R22 – Harmful if swallowed.
R35 - Causes severe burns
R43 – Causes severe burns
R43 - May cause sensitisation by skin contact.
R52/53 - Harmful to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Further information
The information supplied in this Safety Data Sheet is designed only as guidance for the
safe use, storage and handling of the product. This information is correct to the best of our knowledge and belief at the date of publication however no guarantee is made to its accuracy. 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 other process.