Appendix 2
Universal 2 Part Adhesive MSDS – Component A

1 Identification of Preparation and Company

Product
Amtico Universal 2-Part Adhesive
Two component polyurethane adhesive – Component A. This component has to be mixed with the component B of the product according to the mixing ratio. Please note also safety data sheet of component B.

Company:
Amtico International
Kingfield Road, Coventry, UK CV6 5AA
Tel: +44(0)24 7686 1400
Fax: +44(0)24 7686 1552

2 Composition/Information on Ingredients
Adhesive preparation based on polyalcohol and fillers.

3 Hazards Identification
According to our present information, this product is not classified as a dangerous preparation under the Chemicals (Hazard Information and Packaging for Supply) (CHIP) Regulations (1994).
Maintain good personal hygiene as usual when handling chemicals.

4 First Aid Measures
After Contact with Skin
Wash with plenty of soap and water.

After Contact with Eyes
Rinse immediately with plenty of water and seek medical advice.

After Ingestion
Seek medical advice.

5 Fire Fighting Measures
Extinguishing media: alcohol resistant foam, CO₂, powder, water spray. Closed packages may be cooled with water spray.

6 Accidental Release Measures
Scoop up, soak up remainder with sand or earth and remove. Do not empty into drains.

7 Handling and Storage
Handling
Wear suitable protective clothing, gloves and eye/face protection.

Storage
Keep container tightly closed and dry. Keep away from food stuffs.

8 Exposure Controls and Personal Protection

Exposure Controls
Ingredients assigned either maximum exposure limits or occupational exposure standards in HSE Guidance Note EH40: None.

Personal Protection
(i) Avoid contact with skin and eyes. Wash hands before breaks and end of work. Take off immediately all contaminated clothing.
(ii) Eye protection: recommended minimum light eye protection.
(iii) Hand protection: protective gloves (vinyl or polyurethane rubber).

9 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Form</td>
<td>Pasty</td>
</tr>
<tr>
<td>Colour</td>
<td>Yellowish</td>
</tr>
<tr>
<td>Odour</td>
<td>Slight</td>
</tr>
<tr>
<td>Density (20°C)</td>
<td>Appr. 1.5 g/cm³</td>
</tr>
<tr>
<td>Vapour Pressure (20°C)</td>
<td>Below 1 mbar</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Appr. 70,000 mPa Brookfield RV 7, 20 rpm</td>
</tr>
<tr>
<td>Solubility in water (20°C)</td>
<td>Partly soluble</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Ignition Temperature</td>
<td>Not applicable</td>
</tr>
<tr>
<td>Explosion limits</td>
<td>Not applicable</td>
</tr>
</tbody>
</table>

10 Stability and Reactivity
No thermal decomposition, hazardous decomposition products, or hazardous reactions when properly stored and used as designated.

11 Toxicological Information
According to our experience and present information, this product presents minimal health hazard when used as designated and protective measures are followed.
Appendix 2
Universal 2 Part Adhesive MSDS – Component A

12 Ecological Information
Do not empty into drains. Product is not a weak water pollutant.

13 Disposal Considerations
Incineration or waste disposal in compliance with applicable pollution abatement laws and environmental regulations (Control of Pollution Act (1974) and Environmental Protection Act (1990)).

14 Transport Information

15 Regulatory Information
Classified and labelled for supply in accordance with the Chemicals (Hazard Information and Packaging for Supply (CHIP)) Regulations (1994) as follows:-
Health – not classified
Physico-chemical – not classified

16 Other Information
The information herein is given in good faith. No warranty expressed or otherwise is made. Any use of this data and information must be determined by the user to be in accordance with applicable laws and regulations.
Appendix 3
Universal 2 Part Adhesive MSDS – Component B

1 Identification of Preparation and Company

Product
Amtico Universal 2-Part Adhesive
Two component polyurethane adhesive – Component B
This component has to be mixed with the component A of the product according to the mixing ratio. Please note also safety data sheet of component A.

Company
Amtico International
Kingfield Road, Coventry, CV6 5AA, UK
Tel: +44(0)24 7686 1400
Fax: +44(0)24 7686 1552

2 Composition/Information on Ingredients

Diphenylmethane-4, 4’ di-isocyanate (MDI) with its isomers and homologues.

Name of Substance:
Diphenylmethane-4, 4’ di-isocyanate
CAS-No: 101-68-8
\%
50-100
Classification:
Xn, R20, R36/37/38 R42/43

3 Hazards Identification

As classified under the Chemicals (Hazard Information and Packaging for Supply) (CHIP) Regulations (1994).

Xn:
Harmful, Contains isocyanates
R-phrases:
R20: Harmful by inhalation
R36/37/38: Irritating to eyes, respiratory system and skin
R42/43: May cause sensitisation by inhalation and skin contact

4 First Aid Measures

(i) General
In all cases of doubt, or when symptoms persist, seek medical attention. If unconscious, place in recovery position. Give nothing by mouth.

(ii) After contact with skin
Remove immediately with paper tissue or gauze. Wash off remainder with plenty of soap and water.

(iii) After contact with eyes
Rinse immediately with plenty of water and continue for at least ten minutes. Seek medical advice.

(iv) Ingestion
DO NOT induce vomiting. Keep at rest. Seek medical advice.

(v) Inhalation
In case of over-exposure, remove person to fresh air, seek medical advice. If breathing is irregular or stopped, administer artificial respiration.

5 Fire Fighting Measures

Extinguishing media: alcohol resistant foam, CO₂, powder, water spray. Closed packages may be cooled with water spray.

Not to be used: Small amounts of water (reacts with hot isocyanate).

6 Accidental Release Measures

Absorb onto suitable material, such as sand or sawdust. Scoop up after 1 hour, and keep in an open container. Keep wet and store outside for 7 to 14 days. Do not empty into drains. Dispose in accordance with applicable legislation.

7 Handling and Storage

Handling
Wear protective gloves and eye/face protection. Use only in well ventilated areas.

Storage
Keep container tightly closed and dry. Keep at temperature between 10°C and 40°C. Frost sensitive. Keep away from foodstuffs.

8 Exposure Controls and Personal Protection

Exposure Controls
Ingredients assigned a maximum exposure limit (MEL) in HSE Guidance Note EH40:

Ingredient: Diphenylmethane-4, 4’ di-isocyanate
CAS-No: 101-68-8
\%
50-100
Limit-value:
0.005 ppm

Exposure of persons by inhalation must at all times be controlled to a level below the MEL.

Whilst Amtico has made every attempt to ensure that this information is accurate and reliable at the time of its publication, we cannot accept responsibility for any errors, omissions, inaccuracies or any changes that have occurred since the date of publication or for the results obtained from the use of such information. E&OE. Further advice can be sought by calling 08703 504070.


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Appendix 3
Universal 2 Part Adhesive MSDS – Component B

Personal Protection
(i) Avoid contact with skin and eyes. Wash hands before breaks and end of work. Remove all contaminated clothing immediately.
(ii) Eye protection: recommended minimum light eye protection.
(iii) Hand protection: protective gloves (vinyl or polyurethane rubber)
(iv) Use only in well ventilated areas. Otherwise, suitable respiratory protection must be worn.

9 Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Form:</th>
<th>Liquid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Colour:</td>
<td>Brown</td>
</tr>
<tr>
<td>Odour:</td>
<td>earthy-musty</td>
</tr>
<tr>
<td>Density (20°C):</td>
<td>Appr. 1.23g/cm³</td>
</tr>
<tr>
<td>Vapour Pressure (20°C):</td>
<td>&lt;0,0001 mbar</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Appr. 250 mPas</td>
</tr>
<tr>
<td>Solubility in water (20°C):</td>
<td>insoluble, soluble in acetone, ethyl acetate</td>
</tr>
<tr>
<td>Flash Point:</td>
<td>Over 200°C</td>
</tr>
<tr>
<td>Ignition temperature:</td>
<td>Over 400°C</td>
</tr>
<tr>
<td>Explosion limits:</td>
<td>limits not determined</td>
</tr>
</tbody>
</table>

10 Stability and Reactivity
Thermal decomposition: Polymerisation above approximately 260°C and CO₂ generation.
No hazardous decomposition products when properly stored and used as designated.
Hazardous reactions: Violent reaction with alkali, amines, alcohols, acids. Reacts with water with CO₂ generation.
Pressure increase in closed containers possible. Danger of bursting! These containers should be opened carefully.

11 Toxicological Information
LD₅₀-value oral, rat: over 15,000 mg/kg. LD₅₀-value inhalation, rat: over 370 mg/aerosol/m³ (4h exposure).
Effect on eyes: tear flow, burning severe irritation.
Skin: slight redness, occasional blistering or dermatitis.
May cause sensitisation.

12 Ecological Information
Do not empty into drains. Product is a weak water pollutant. This component reacts with water over contact area with slow generation of CO₂ to form insoluble polyurea.
According to our information polyurea is inert and not degradable.

13 Disposal Considerations
Incineration or waste disposal in compliance with applicable pollution abatement laws and environmental regulations (Control of Pollution Act (1974) and Environmental Protection Act (1990)).

14 Transport Information
Not dangerous goods in sense of mentioned transport regulations: ADR/RID, IMDG, ICAO/IATA-DGR.
Irritating to skin and mucous membranes. Protect from frost. Avoid heat above +50°C. Keep dry. Keep separate from foodstuffs.
UN No – not classified. Marine pollutant – no.

15 Regulatory Information
Classified and labelled for supply in accordance with the Chemicals (Hazard Information and Packaging for Supply) (CHIP) Regulations (1994) as follows:-
Xn:
Harmful, Contains isocyanates, Contains Diphenylmethane-4,4′-di-isocynate (MDI), isomers/homologues.
R-phrases:
R20: Harmful by inhalation
R36/37/38: Irritating to eyes, respiratory system and skin
R42/43: May cause sensitisation by inhalation and skin contact
S-phrases:
S26: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice.
S27: Take off immediately all contaminated clothing
S28: After contact with skin, wash immediately with plenty of water and soap.
S36/37/39: Wear suitable protecting clothing, gloves and eye/face protection
S45: In case of an accident or if you feel unwell, seek medical advice immediately, (show label where possible).

Whilst Amtico has made every attempt to ensure that this information is accurate and reliable at the time of its publication, we cannot accept responsibility for any errors, omissions, inaccuracies or any changes that have occurred since the date of publication or for the results obtained from the use of such information. E&OE. Further advice can be sought by calling 08703 504070.

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16 Other Information

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