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

1.1. Product identifier
Mixture identification:

| Trade name: AMTICO INTERNATIONAL PS ADHESIVE |

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

| Recommended use: Water-borne synthetic polymer based adhesive |
| Uses advised against: == |

1.3. Details of the supplier of the safety data sheet

| Supplier: Amtico International  
Kingfield Road, Coventry, CV6 5AA, UK  
Tel: +44(0)24 7686 1400  
Fax: +44(0)24 7686 1552 |
| Competent person responsible for the safety data sheet: John.Baggaley@Amtico.com |

1.4. Emergency telephone number
+44 (0) 24 7686 1400 Opening hours: Mon - Fri 09:00-16:45

SECTION 2: HAZARDS IDENTIFICATION

2.1. Classification of the substance or mixture

| Directive criteria, 67/548/CE, 1999/45/EC and following amendments thereof: |
| Properties / Symbols: The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). No hazard labelling required |
| Adverse physicochemical, human health and environmental effects: None Required |

2.2. Label elements

| The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). No hazard labelling required |
| Additional Labeling: EUH210 Safety data sheet available on request |
| Contains: 1,2-benzisothiazol-3(2H)-one 54 ppm |
| Special provisions according to Annex XVII of REACH and subsequent amendments: None |

2.3. Other hazards

| vPvB Substances: None |
| PBT substances None |

See at paragraph 11 the additional information concerning crystalline silica

SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS

3.1. Substances
N.A.

3.2. Mixtures

Hazardous components within the meaning of the CLP regulation and related classification:

| Free Crystalline Silica (Ø > 10 μ) >= 5% - < 10% |
| CAS: 14808-60-7  |
| EC: 238-878-4 |

| The product is not classified as dangerous according to Regulation EC 1272/2008 (CLP). Precautionary classification for respirable powder quartz. STOT RE2. H373 (Lung Inhalation) |
| 1-Phenoxypropan-2-ol >= 1% - < 2.5% |
| CAS: 770-35-4  |
| EC: 212-222-7 |

| Alkylphenol polyethylene glycol ether >= 0.1% - < 0.25% |
| CAS: 9016-45-9 |

| Ethoxy sulphate nonylphenol, ammonium salt >= 0.1% - < 0.25% |
| CAS: 68649-55-8 |

| 1,2-benzisothiazol-3(2H)-one 54 ppm |
| CAS: 2634-33-5  |
| EC: 220-120-9 |

| Index number: 613-088-00-6, |
| Skin Irrit. 2 H315 |
| Eye Dam. 1 H318 |
| Skin Sens. 1,1A,1B H317 |
| Aquatic Acute 1 H400 |
| Oral Acute Tox. 4 H302 |

The full text for all Hazard Statements are displayed in Section 16.

SECTION 4: FIRST AID MEASURES

4.1. Description of first aid measures

| In case of skin contact: Wash with plenty of water and soap. If any irritation or discomfort occurs, seek medical advice and present this safety data sheet. |
| In case of eyes contact: In case of contact with eyes, rinse immediately with plenty of water and seek medical advice. Wash immediately with water for at least 10 minutes. |
| In case of Ingestion: A suspension of activated charcoal in water, or petroleum jelly may be administered. Wash the mouth thoroughly and drink plenty of water. Immediately seek medical advice and present this safety-data sheet |
| In case of Inhalation: Remove casually to fresh air and keep warm and at rest. Immediately seek medical advice and present this safety-data sheet |

Page 1 of 5
4.2. Most important symptoms and effects, both acute and delayed
None
4.3. Indication of any immediate medical attention and special treatment needed
Treatment: (See paragraph 4.1)

SECTION 5: FIREFIGHTING MEASURES
5.1. Extinguishing media
Suitable extinguishing media: None in particular.
Extinguishing media which must not be used for safety reasons: None in particular.

5.2. The product does not present a fire hazard.
Do not inhale explosion and combustion gases.
The original ingredients or unidentified toxic and/or irritant compounds may be present in the combustion fumes.

5.3. Advice for firefighters
Use suitable breathing apparatus.
Collect contaminated fire extinguishing water separately. This must not be discharged into drains.
Move undamaged containers from immediate hazard area if it can be done safely.

SECTION 6: ACCIDENTAL RELEASE MEASURES
6.1. Personal precautions, protective equipment and emergency procedures
Wear personal protection equipment.
Remove persons to safety.
See protective measures under point 7 and 8.

6.2. Environmental precautions
Limit leakages with earth or sand.
Do not allow to enter into soil/subsoil. Do not allow to enter into surface water or drains.
Retain contaminated washing water and dispose it.
In case of gas escape or of entry into waterways, soil or drains, inform the responsible authorities.
Suitable material for taking up: absorbing material, organic, sand

6.3. Methods and material for containment and cleaning up
Wash with plenty of water.
Suitable material for taking up: absorbing material, organic, sand
Retain contaminated washing water and dispose it.

6.4. Reference to other sections
See also section 8 and 13

SECTION 7: HANDLING AND STORAGE
7.1. Precautions for safe handling
Avoid contact with skin and eyes, inhalation of vapours and mists.
Do not eat or drink while working.
See also section 8 for recommend protective equipment.
Fine dust may form explosive mixture with air. Keep away from open flames, heat and sparks.
Do not remove shrink film in hazardous locations (because of risk of static charging/discharge)

7.2. Conditions for safe storage, including any incompatibilities
Keep away from food, drink and feed.

Incompatible materials: None in particular.
Instructions as regards storage premises: Adequately ventilated premises.
Store above 5°C.

7.3. Specific end use(s)
None in particular

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION
8.1. Control parameters
free crystalline silica (Ø > 10 μ)
CAS: 14808-60-7 EC No: 238-878-4
ACGIH - LTE mg/m(38h): 0,025 mg/m3
(Applicable to raw material, not formulated adhesive)
Notes: A2 (R) - Pulmonary fibrosis, lung cancer
DNEL Exposure Limit Values
N.A.
PNEC Exposure Limit Values
N.A.

8.2. Exposure controls
Eye protection: Not normally needed when used according to good working practices.
Protection for skin: No special precautions required, but good work practice should be followed and unnecessary contact with the adhesive avoided.
Protection for hands: Not needed for normal use. The use of LLPDE (0,06 mm), nitrile (0,4) or butyl (0,5 mm) gloves is suggested. Latex gloves are not recommended.
Respiratory protection: Not needed for normal use. In case of insufficient ventilation use mask with B type filters (EN 14387).
Thermal Hazards: None
Environmental exposure controls: None

Personal Protective Equipment should comply with relevant CE standards (as EN 374 for gloves and EN 166 for goggles), correctly maintained and stored. Consult the supplier to check the suitability of equipment against specific chemicals and for user information.
SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

9.1. Information on basic physical and chemical properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Paste</td>
</tr>
<tr>
<td>Colour</td>
<td>Pale Green</td>
</tr>
<tr>
<td>Odour</td>
<td>Typical</td>
</tr>
<tr>
<td>Odour threshold</td>
<td>N.A.</td>
</tr>
<tr>
<td>pH</td>
<td>8.5-9.5</td>
</tr>
<tr>
<td>Melting point / freezing point</td>
<td>N.A.</td>
</tr>
<tr>
<td>Initial boiling point and boiling range</td>
<td>100 °C</td>
</tr>
<tr>
<td>Solid/gas flammability</td>
<td>N.A.</td>
</tr>
<tr>
<td>Upper/lower flammability or explosive limits</td>
<td>N.A.</td>
</tr>
<tr>
<td>Vapour density</td>
<td>N.A.</td>
</tr>
<tr>
<td>Flash point</td>
<td>N.A.</td>
</tr>
<tr>
<td>Evaporation rate</td>
<td>N.A.</td>
</tr>
<tr>
<td>Vapour pressure</td>
<td>N.A.</td>
</tr>
<tr>
<td>Relative density</td>
<td>1.20-1.25 g/cm³ (23°C)</td>
</tr>
<tr>
<td>Vapour density (air=1)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Solubility in water</td>
<td>Dispersible</td>
</tr>
<tr>
<td>Lipid solubility</td>
<td>Insoluble</td>
</tr>
<tr>
<td>Viscosity</td>
<td>70000-100000 mPa.s (23°C)</td>
</tr>
<tr>
<td>Auto-ignition temperature</td>
<td>N.A.</td>
</tr>
<tr>
<td>Explosion limits(by volume)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Decomposition temperature</td>
<td>N.A.</td>
</tr>
<tr>
<td>Partition coefficient (n-octanol/water)</td>
<td>N.A.</td>
</tr>
<tr>
<td>Explosive properties</td>
<td>N.A.</td>
</tr>
<tr>
<td>Oxidizing properties</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

9.2. Other information

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Miscibility</td>
<td>N.A.</td>
</tr>
<tr>
<td>Fat Solubility</td>
<td>N.A.</td>
</tr>
<tr>
<td>Conductivity</td>
<td>N.A.</td>
</tr>
<tr>
<td>Substance Groups relevant properties</td>
<td>N.A.</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

10.1. Reactivity

Stable under normal conditions

10.2. Chemical stability

Stable under normal conditions

10.3. Possibility of hazardous reactions

None

10.4. Conditions to avoid

Stable under normal conditions.

10.5. Incompatible materials

None in particular.

10.6. Hazardous decomposition products

None.

SECTION 11: TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

<table>
<thead>
<tr>
<th>Route(s) of entry</th>
<th>Ingestion</th>
<th>Inhalation</th>
<th>Contact</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Yes</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Toxicological information related to the product</th>
</tr>
</thead>
<tbody>
<tr>
<td>There is no toxicological data available on the mixture. The individual component available toxicological data.</td>
</tr>
</tbody>
</table>

  - LD50 (oral rat) > 2000 mg/kg
  - LC50 (inhalation rat) > 5,4 mg/l/4h

- **1,2-benzisothiazol-3(2H)-one** - CAS: 2634-33-5
  - LD50 (oral rat) > 1150 mg/kg
  - LD50 (skin - Species: Mouse) > 2000 mg/kg
  - LD50 (oral - Species: Rat) > 597 mg/kg

**Corrosive/Irritating Properties**

- The product can cause a temporary irritation by contact.

**Sensitizing Properties**

- No effects are known.

**Carcinogenic Effects**

- The IARC (International Agency for Research on Cancer) believes that the crystalline silica inhaled at the workplace can cause lung cancer in man.
- However, it also points out that the cancer effect depends on the silica characteristics and on the biological-physical condition of the environment.
- There is a large amount of information in support of the fact that increased risk of cancer is limited to persons suffering from silicosis.
- In the current situation of studies, protection of workers from silicosis can be ensured by respecting the exposure limit values.

**Mutagenic Effects**

- No effects are known.
  - Crystalline silica inhalation is not applicable to this formulated product.

**Teratogenic Effects**

- No effects are known.
  - Crystalline silica inhalation is not applicable to this formulated product.

If not differently specified, the information required in Regulation 453/2010/EC listed below must be considered as N.A.:

- e) germ cell mutagenicity
- f) carcinogenicity
- g) reproductive toxicity
- h) STOT-single exposure
- i) STOT-repeated exposure
- j) aspiration hazard
SECTION 12: ECOLOGICAL INFORMATION

12.1. Toxicity

Adopt good industrial practices, so that the product is not released into the environment.

Aquatic toxicity: the preparation is not to be considered toxic to the aquatic environment based on components.

LC50 > 100 mg/l - aquatic species (calculated data following 1999/45/EC Directive).

Component Aquatic Acute toxicity:

1,2-benzisothiazol-3(2H)-one - CAS: 2634-33-5
a) Aquatic acute toxicity:
Endpoint: EC50 - Species: Daphnia = 3.7 mg/l - Duration h: 48
Endpoint: EC50 - Species: Algae = 0.37 mg/l - Duration h: 72

Biodegradability: not readily biodegradable

12.2. Persistence and degradability

None

12.3. Bioaccumulative potential

N.A.

12.4. Mobility in soil

N.A.

12.5. Results of PBT and vPvB assessment

List of environmentally dangerous substances contained in this preparation and their classification:

54 ppm 1,2-benzisothiazol-3(2H)-one
CAS: 2634-33-5
H400 Very toxic to aquatic organisms.
EC50 (Daphnia): 3.7 mg/l (48 hr)
EC50 (Algae): 0.37 mg/l (72 hr)

29 ppm 2-metyl-2H-isotiazol-3-one (MIT)
CAS: 2682-20-4
H400 Very toxic to aquatic organisms.

12 ppm octhilinone (ISO); 2-octyl-2H-isothiazol-3-one
CAS: 26530-20-1
H410 Very toxic to aquatic life with long-lasting effects.
EC50 (Daphnia): 0.32 mg/l (48 hr)
EC50 (Algae): 0.031 mg/l (72 hr)
LC50 (Fish): 0.047 mg/l (96 hr)

10 ppm 2-methyl-2H-isothiazol-3-one (MIT)
CAS: 2682-20-4
H400 Very toxic to aquatic organisms.
EC50 (Daphnia): 1.6 mg/l (48 hr)
EC50 (Algae): 0.157 mg/l (72 hr)
LC50 (Fish): 6 mg/l (96 hr)

vPvB Substances: None - PBT Substances: None

12.6. Other adverse effects

None known.

SECTION 13: DISPOSAL CONSIDERATIONS

13.1. Waste treatment methods

Recover if possible. In so doing, comply with the local and national regulations currently in force.


Disposal of hardened product (EC waste code):
08 04 10

Disposal of not hardened product (EC waste code):
08 04 16

The suggested European waste code is just based on the composition of the product.
According to the specific process or application field a different waste code may be necessary.

SECTION 14: TRANSPORT INFORMATION

14.1. UN number

Not classified as dangerous in the meaning of transport regulations.

UN Number: ==

14.2. UN proper shipping name

N.A.

14.3. Transport hazard class(es)

Rail/Road(RID/ADR): no dangerous good
ADR-Upper number: NA
Air (ICAO/IATA): no dangerous good
Sea (IMO/IMDG): no dangerous good

14.4. Packing group

N.A.

14.5 Environmental hazards

Marine pollutant: No
N.A.

14.6. Special Precautions for User

Rail (RID): ==
N.A.

14.7. Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code

No

SECTION 15: REGULATORY INFORMATION

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

Dir. 98/24/EC (Risks related to chemical agents at work)
Dir. 2000/39/EC (Occupational exposure limit values)
Dir. 2006/8/EC
Regulation (EC) n. 1907/2006 (REACH)
Regulation (EC) n. 1272/2008 (CLP)
Regulation (EC) n. 790/2009 (ATP 1 CLP) and (EU) n. 758/2013
Regulation (EU) n. 453/2010 (Annex I)
Regulation (EU) n. 286/2011 (ATP 2 CLP)
Regulation (EU) n. 618/2012 (ATP 3 CLP)
Regulation (EU) n. 487/2013 (ATP 4 CLP)
Regulation (EU) n. 944/2013 (ATP 5 CLP)
Restrictions related to the product or the substances contained according to Annex XVII Regulation (EC) 1907/2006 (REACH) and subsequent modifications:

Restrictions related to the product:
Restriction 40

Restrictions related to the substances contained:
Restriction 28
Restriction 29
Restriction 46

REACH Regulation (1907/2006) – All. XVII: N.A.
Legislative Decree no. 81 of the 9th of April 2008 Title XI "Dangerous substances - Chapter I - Protection against chemical agents”
Directive 2000/39/CE and s.m.i. (Professional threshold limit)
Legislative Decree no. 152 of the 3rd of April 2006 and subsequent modifications and additions.
(An Environmental regulations)
ADR Agreement – IMDG Code – IATA Regulation
GEV-EMICODE : EC 1 (very low emission)
VOC (2004/42/EC) : N.A. g/l

Social Dialogue on Respirable Crystalline Silica
On April 26, 2006 was signed a multi-sector social dialogue, based on a "Guide to Good Practices", on workers health protection who are in contact with products containing crystalline silica. The text of the agreement published in G.U. European Union (2006 / C 279/02) and the “Guide to Good Practices”, with attachments, are available on www.nepsi.eu website, they offer guidelines and useful information for handling products containing respirable crystalline silica.

SVHC Substances:
Substances in candidate list (Art. 59 Reg. 1907/2006, REACH)
Alkylphenol polyethyleneglycolether
Ethoxysulphate nonylphenol, ammonium salt

SECTION 16: OTHER INFORMATION
Text of phrases referred to under heading 3:

H319 Causes serious eye irritation.
H412 Harmful to aquatic life with long lasting effects.
H413 May cause long lasting harmful effects to aquatic life.
H315 Causes skin irritation.
H318 Causes serious eye damage.
H317 May cause an allergic skin reaction.
H400 Very toxic to aquatic life.
H302 Harmful if swallowed.

This safety data sheet has been completely updated in compliance to Regulation 453/2010/EU.

This document was prepared by a competent person who has received appropriate training.
Main bibliographic sources:
NIOSH - Registry of toxic effects of chemical substances