1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: RAPP-IT PIPE REPAIR BANDAGE
Company Name: MARINE & INDUSTRIAL MARKETING (ABN 32 051 014 049)
Address: P.O. BOX 446 HAMILTON QUEENSLAND 4007
Telephone/Fax Number: Tel: (07) 3262 3755 Fax: (07) 3262 3255
Recommended Use: Used for emergency pipe repair to fluid control pipes.

2. HAZARDS IDENTIFICATION

Hazard Classification: Classified as hazardous. HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
Hazard classification according to the criteria of NOHSC. 
Dangerous goods classification according to the Australia Dangerous Goods Code.

Risk Phrase(s): Classified as hazardous
R36/37/38 Irritating to eyes, respiratory system and skin.
R40 Limited evidence of a carcinogenic effect.
R42/43 May cause sensitisation by inhalation and skin contact.

Safety Phrase(s): S23 Do not breathe gas/fumes/vapour/spray.
S24/25 Avoid contact with skin and eyes.
S36/37/39 Wear suitable protective clothing, gloves and eye/face protection.
S38 If insufficient ventilation, wear suitable respiratory equipment.
S45 In case of accident or if you feel unwell seek medical advice immediately.
S53 Avoid exposure - obtain special instructions before use. Refer to MSDS and application instructions before use.

3. COMPOSITION/INFORMATION ON INGREDIENTS

<table>
<thead>
<tr>
<th>Ingredients</th>
<th>Name</th>
<th>CAS</th>
<th>Proportion</th>
<th>Hazard Symbol</th>
<th>Risk Phrase</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fibre glass</td>
<td></td>
<td></td>
<td>50-52%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Propylene polyol diphenyl</td>
<td></td>
<td>9048-57-1</td>
<td>34.1%</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Diphenylmethane-di-isocyanate</td>
<td></td>
<td>101-68-8</td>
<td>7.3%</td>
<td>Xn, Xi</td>
<td>R20,R36/37/38, R42</td>
</tr>
<tr>
<td>Prepolymer</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2,2-Dimorpholinodiethyl ether</td>
<td></td>
<td>6425-39-4</td>
<td>0.32-0.34%</td>
<td>Xn, C</td>
<td>R20, R34</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

Inhalation: If inhaled, remove affected person from contaminated area. Apply artificial respiration if not breathing. Seek medical attention.

Ingestion: Do not induce vomiting. Wash out mouth thoroughly with water. If symptoms develop seek medical attention.

Skin: Remove contaminated clothing. Wash affected area thoroughly with soap and water. Wash contaminated clothing before re-use or discard. Seek medical attention.

Eye: If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. Seek medical attention.

First Aid Facilities: Eye wash fountain, safety shower and normal washroom facilities.
Advice to Doctor: Treat symptomatically.
Other Information: For advice in an emergency, contact a Poisons Information Centre (Phone Australia 13 1126) or a doctor at once.
5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media
Use carbon dioxide, dry chemical or foam. Only use water fog to keep undamaged containers cool.

Hazards from Combustion Products
Under fire conditions this product may emit toxic and/or irritating fumes including oxides of nitrogen, oxides of carbon, hydrogen cyanide.

Specific Hazards
Combustible solid. This product will burn if exposed to fire.

Precautions in connection with Fire
Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses. Firewater run-off, if not contained may cause environmental damage.

6. ACCIDENTAL RELEASE MEASURES

Emergency Procedures
Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

7. HANDLING AND STORAGE

Precautions for Safe Handling
Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of dust in the work atmosphere. Avoid inhalation of dust, and skin or eye contact. Establish good housekeeping practices. Remove dust accumulations on a regular basis by vacuuming or gentle sweeping to avoid creating dust clouds. Maintain high standards of personal hygiene i.e. Washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for Safe Storage
Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use and securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

National Exposure Standards
No exposure value assigned for this specific material by the National Occupational Health and Safety Commission (NOHSC), Australia. However, the available exposure limits for ingredients are listed below:

<table>
<thead>
<tr>
<th>SUBSTANCE</th>
<th>TWA ppm mg/m³</th>
<th>STEL ppm mg/m³</th>
<th>NOTICE</th>
</tr>
</thead>
<tbody>
<tr>
<td>Isocyanate as NCO</td>
<td>- 0.02</td>
<td>- 0.07</td>
<td>Sen</td>
</tr>
</tbody>
</table>

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

‘Sen’ Notice: The substance may cause sensitisation by skin contact or by inhalation.

Biological Limit Values
No biological limit allocated.

Engineering Controls
Provide sufficient ventilation to keep airborne levels as low as possible. Where vapours, mists or dusts are generated, particularly in enclosed areas, and natural ventilation is inadequate, a local exhaust ventilation system is required.
Material Safety Data Sheet – Rapp-it Pipe Repair Bandage

**Product Name:** Rapp-it Pipe Repair Bandage

**Respiratory Protection**
If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist/particulate filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

**Eye Protection**
Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection devices should conform with Australian/New Zealand Standard AS/NZS 1337 - Eye Protectors for Industrial Applications.

**Hand Protection**
Wear gloves of impervious material, PVC or nitrile rubber. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

**Body Protection**
Suitable protective workwear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

### 9. Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>A knitted fibreglass substrate with a polyurethane resin.</td>
</tr>
<tr>
<td>Odour</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>200°C at 5mm Hg</td>
</tr>
<tr>
<td>Solubility in Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>pH Value</td>
<td>4-6</td>
</tr>
<tr>
<td>Vapour Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Density (Air=1)</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>177°C (closed cup)</td>
</tr>
<tr>
<td>Flammability</td>
<td>Combustible at high temperatures</td>
</tr>
<tr>
<td>Auto-Ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammable Limits - Lower</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammable Limits - Upper</td>
<td>Not available</td>
</tr>
</tbody>
</table>

### 10. Stability and Reactivity

**Chemical Stability**
Stable under normal conditions of storage and handling.

**Conditions to Avoid**
Not available.

**Incompatible Materials**
Water, strong bases, alcohols, metal compounds and surface active agents.

**Hazardous Decomposition**
Under fire conditions this product may emit toxic and/or irritating fumes including oxides of nitrogen, oxides of carbon, hydrogen cyanide.

**Hazardous Polymerization**
May occur.  

### 11. Toxicological Information

**Toxicology Information**
Acute toxicity:
LD50 (oral, rat): > 2000 mg/kg

**Inhalation**
Irritating to respiratory system. Inhalation of product vapours will cause irritation of the nose, throat, respiratory system, mucus membrane and upper airways, especially if the material is heated or dust are generated. Inhalation of high concentration may lead to headache, dizziness, nausea, vomiting and loss of co-ordination. Inhalation may cause sensitisation, and asthma-like symptoms in some individuals.
Material Safety Data Sheet – Rapp-it Pipe Repair Bandage

Product Name: Rapp-it Pipe Repair Bandage

Classified as Hazardous

Ingestion
Ingestion of this product may irritate the gastric tract causing nausea and vomiting. Symptoms may include pain, nausea, vomiting and diarrhoea.

Skin
Irritating to skin. Skin contact will cause redness, itching and swelling. Repeated exposure may cause skin dryness and cracking and may lead to dermatitis. May cause sensitisation by skin contact. May cause redness, itching and irritation. Some substances such as MDI can cause a specific immune response in some people. Such substances are called sensitisers and the development of a specific immune response is termed ‘sensitisation’. Exposure to a sensitisers, once sensitisation has occurred, may manifest itself as a skin rash or inflammation or as an asthmatic condition, and in some individuals this reaction can be extremely severe.

Eye
Irritating to eyes. On eye contact this product will cause tearing, stinging, blurred vision, and redness.

Chronic Effects
Prolonged or repeated skin contact may lead to allergic contact dermatitis and sensitisation in some individuals. Prolonged or repeated exposure through inhalation of vapours/fumes may lead to sensitisation and occupational asthma.

Carcinogenicity
This substance is classified as a Category 3 Carcinogen according to National Occupational Health and Safety Commission (NOHSC). That is, there is some evidence from appropriate animal studies that human exposure to this substance may result in the development of cancer, but this evidence is insufficient to place the substance in Category 2. Category 3 Carcinogens are substances that cause concern for humans owing to possible carcinogenic effects.

12. ECOLOGICAL INFORMATION

Ecotoxicity
No ecological data are available for this material.

Persistence / Degradability
Not available

Mobility
Not available

Environ. Protection
Prevent this material entering waterways, drains and sewers.

13. DISPOSAL CONSIDERATIONS

Disposal Considerations
The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations.

14. TRANSPORT INFORMATION

Transport Information
Not classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

15. REGULATORY INFORMATION

Regulatory Information
Classified as Hazardous according to criteria of National Occupational Health & Safety Commission (NOHSC), Australia. Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule
Not Scheduled

Hazard Category
Harmful, Irritant

16. OTHER INFORMATION

Date of preparation or last revision of MSDS
MSDS Reviewed: June 2011
SUPERCES: May 2006

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