1. IDENTIFICATION OF THE SUBSTANCE / MIXTURE AND OF THE COMPANY / UNDERTAKING

1.1 Product Identifier

Material name : Cayman Rapid
Product code : 

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

Product use : Resin-impregnated bandage for pipe repair system

1.3 Details of the supplier of the safety data sheet

Manufacturer/Supplier: IMG Ltd.,
Unit M
Riverside Industrial Estate
Fazeley
Tamworth
B78 3RW

Tel. : 01827 283322
Fax. : 01827 250143

Email (for SDSs) : sales@img-limited.co.uk

1.4 Emergency tel. no. : 01827 283322 (Available from 08.30 – 17.00 hours).

2. HAZARDS IDENTIFICATION

2.1 Classification of the substance or mixture

According to 1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation:

Physical and Chemical Hazards Not classified
Human health Sk. Irrit.2: H315; Sk. Sens.1: H317; Eye Irrit.2: H319;
Resp. Sens.1: H334; STOT SE3: H335;
Carc. 2; H351; STOT RE2; H373

Environment Not classified

2.2 Label elements

Labelling according to EC Directives: 1272/2008/EC

Signal word: Danger Contains: Oxirane, methyl-, polymer with oxirane, ether with 1,2,3-propanetriol (3:1), polymer with 1,1”-methylenebis[4-isocyanatobenzene]

Pictogram(s):

H-Statements:

H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 May cause respiratory irritation
H351 Suspected of causing cancer
H373 May cause damage to organs through prolonged or repeated exposure
CAYMAN RAPID

P-Statements:

P202 Do not handle until all safety precautions have been read and understood.
P261 Avoid breathing dust/vapours.
P280 Wear protective gloves/protective clothing/eye protection/face protection.
P302+352 IF ON SKIN: Wash with plenty of water
P332+313 If skin irritation occurs: Get medical advice/attention.
P304+340 IF INHALED: Remove person to fresh air and keep comfortable for breathing.
P305+351+338 IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.
P337+313 If eye irritation persists get medical advice/attention.
P308+313 If exposed or concerned: Get medical advice/attention.

Supplemental labelling information: EUH204 Contains Isocyanates. May produce an allergic reaction.

2.3 Other hazards No data available

3. COMPOSITION/INFORMATION ON INGREDIENTS

3.2 Mixtures:
Hazardous components

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>CAS No./EC No./Reg. No.</th>
<th>Classification (1272/2008/EC)</th>
<th>Content</th>
</tr>
</thead>
<tbody>
<tr>
<td>OXIRANE, METHYL-, POLYMER WITH OXIRANE, ETHER WITH 1,2,3-PROPANETRiol (3:1), POLYMER WITH 1,1'-METHYLENEBIS[4-ISOCYANATOZETHENENE]</td>
<td>59675-67-1 686-507-3</td>
<td>Sk.Irrit.2; H315 Sk.Sens.1; H317 Eye Irrit.2; H319 Resp.Sens.1; H34 STOT SE3; H335 Carc.2; H351 STOT R2; H373</td>
<td>25-45%</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>13463-67-7 236-675-5</td>
<td>Not classified but has a WEL</td>
<td>1-2%</td>
</tr>
<tr>
<td>p-TOLUENESULFONYL ISOCYANATE</td>
<td>4083-64-1 223-810-8</td>
<td>Sk.Irrit.2; H315: C ≥ 5% Eye Irrit.2; H319: C ≥ 5% Resp.Sens.1; H34 STOT SE3; H335: C ≥ 5%</td>
<td>0-0.5%</td>
</tr>
</tbody>
</table>

Other information: Above ingredients are absorbed onto cloth material based on fibre glass continuous filament (non-respirable), CAS 65997-17-3.

See Section 16 for the full text of the H-statements noted above.

(1272/2008/EC: Classification, Labelling and Packaging of Substances and Mixtures (CLP) Regulation).

4. FIRST AID MEASURES

4.1 Description of first aid measures

General advice: Remove casualty from exposure ensuring one's own safety whilst doing so. Never give anything by mouth to an unconscious person.

Skin contact: Wash skin thoroughly with soap and warm water. Dry skin and apply replenishing cream.

Eye contact: Rinse with water for 10 minutes and seek medical advice if irritation persists.
4.1 Description of first aid measures (continued)

**Ingestion:** Unlikely due to the product’s physical properties; if affected, rinse mouth with water and give water to drink. Do not induce vomiting. Seek medical advice.

**Inhalation:** Remove to fresh air. Keep the affected person warm and at rest. Get prompt medical attention.

**4.2 Most important symptoms and effects, both acute and delayed:** May cause irritation to skin. May cause an allergic skin reaction. May cause serious eye irritation. May cause respiratory irritation, asthma or allergy symptoms. Overexposure to isocyanates can cause lung sensitivity to dust, cold air or other irritants that can persist for several weeks or become permanent.

**4.3 Indication of any immediate medical attention and special treatment needed:** See skin and eye contact information above.

### 5. FIRE-FIGHTING MEASURES

**5.1 Extinguishing media**

Suitable extinguishing media: Carbon dioxide; dry chemical powder; alcohol or polymer foam.

Unsuitable extinguishing media: High volume water jet

**5.2 Special hazards arising from the substance or mixture**

Specific hazards during fire-fighting: Not flammable but may support combustion. Irritating/toxic fumes may be released at elevated temperatures.

**5.3 Advice for fire-fighters:**

Wear self-contained breathing apparatus. Use personal protective equipment.

Further information: Standard procedure for chemical fires. Use water spray to cool unopened containers. Do not allow fire run-off to enter drains.

### 6. ACCIDENTAL RELEASE MEASURES

**6.1 Personal precautions, protective equipment and emergency procedures**

Use personal protective equipment as necessary – see Section 8.

**6.2 Environmental precautions**

Do not allow release into the environment.

**6.3 Methods and materials for containment and cleaning up**

Collect up with sand, earth, or vermiculite, and place in a labelled container for disposal in accordance with local/national regulations.

**6.4 References to other sections:** See sections 8 and 13 for personal protection and disposal information.

### 7. HANDLING AND STORAGE

**7.1 Precautions for safe handling**

Handle in accordance with standard good housekeeping practices.

**7.2 Conditions for safe storage, including any incompatibilities**

Store in a cool, well ventilated area. Protect from frost, heat and sunlight. Incompatible with oxidising agents. Keep away from food, drink and animal feed.
7.3 Specific end use(s): No information available.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters:

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>8hr TWA</th>
<th>15min STEL</th>
<th>Information</th>
<th>Reference</th>
</tr>
</thead>
<tbody>
<tr>
<td>ISOCYANATES (as -NCO)</td>
<td>0.02 mg m⁻³</td>
<td>0.07 mg m⁻³</td>
<td>Sen</td>
<td>EH40/2005</td>
</tr>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>4 mg m⁻³, 10 mg m⁻³</td>
<td></td>
<td>Respirable dust Inhalable dust</td>
<td>EH40/2005</td>
</tr>
</tbody>
</table>

DNEL Information

<table>
<thead>
<tr>
<th>Area of application</th>
<th>Exposure route</th>
<th>Titanium Dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consumer</td>
<td>Oral-Long term systemic effects</td>
<td>700 mg/kg</td>
</tr>
<tr>
<td>Workers/Employees</td>
<td>Inhalation-Long term local effects</td>
<td>10 mg/m³</td>
</tr>
</tbody>
</table>

PNEC Information

<table>
<thead>
<tr>
<th>Environment</th>
<th>Titanium Dioxide</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aquatic Compartment</td>
<td></td>
</tr>
<tr>
<td>Fresh water</td>
<td>0.127 mg/l</td>
</tr>
<tr>
<td>Marine water</td>
<td>1 mg/l</td>
</tr>
<tr>
<td>Water-intermittent (sporadic) release</td>
<td>0.61 mg/l</td>
</tr>
<tr>
<td>Dry Sediment – fresh water</td>
<td>1000 mg/kg</td>
</tr>
<tr>
<td>Dry Sediment – marine water</td>
<td>100 mg/kg</td>
</tr>
<tr>
<td>Terrestrial Compartment</td>
<td></td>
</tr>
<tr>
<td>Dry soil</td>
<td>100 mg/kg</td>
</tr>
</tbody>
</table>

8.2 Exposure controls

Engineering measures: Ensure there is sufficient ventilation of the area.

Personal protective equipment

Respiratory protection: Self-contained breathing apparatus must be available in case of emergency. Respiratory protective device with particle filter. Sen: Capable of causing occupational asthma.

Hand protection: Nitrile rubber gloves recommended. Contact the glove supplier for specific advice.

Eye protection: Safety glasses. Ensure eye bath is to hand.

Skin and body protection: General workwear.

Hygiene measures: Observe good industrial hygiene and safety practices. Do not eat or drink whilst using the product.

Environmental exposure controls: Do not discharge into drains or rivers.
9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

State and colour: Off white impregnated cloth.
Odour: Slightly musty
Odour Threshold: No data available
Flammability: Non-flammable
Flash point: 198°C
Lower explosion limit: Not applicable
Upper explosion limit: Not applicable
Explosive properties: Not explosive
Thermal decomposition: No data available
Auto-ignition temperature: Not applicable
Oxidising properties: Non-oxidising
Solubility in water: Insoluble
Solubility in other solvents: Not determined
pH: Not applicable
Melting point/range: No data available
Boiling point/range: (MDI): 207°C
Density: Not applicable
Vapour pressure: No data available
Vapour density: No data available
Partition coefficient: n-octanol/water: No data available
Viscosity (kinematic): Not applicable
Evaporation rate: No data available

9.2 Other information: No data available

10. STABILITY AND REACTIVITY

10.1 Reactivity: Generally non-reactive.
10.2 Chemical stability: Stable under normal conditions.
10.3 Possibility of hazardous reactions: None if stored and used as directed. Moisture reacts with isocyanates.
10.4 Conditions to avoid: Direct sunlight. Extremes of temperature.
10.5 Incompatible materials: Strong oxidising agents. Strong acids.
10.6 Hazardous decomposition products: Thermal decomposition may produce smoke, isocyanate vapours, oxides of carbon, oxides of nitrogen and hydrogen cyanide.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Oral (LD50)</th>
<th>Inhalation (LC50)</th>
<th>Dermal (LD50)</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>&gt;5000 mg/kg (Rat)</td>
<td>&gt;6.8 mg/l 4h (Rat)</td>
<td>&gt;5000 mg/kg(Rabbit)</td>
</tr>
</tbody>
</table>

Skin corrosion/irritation: Contact may cause irritation and redness.

Serious eye damage/eye irritation: Contact may cause irritation and pain. The eyes may water profusely.

Respiratory or skin sensitisation: May cause respiratory irritation. May cause allergy or asthma symptoms or breathing difficulties if inhaled. May cause an allergic skin reaction which may lead to becoming sensitised to the substance.
11.1 Information on toxicological effects (continued)

Repeated dose toxicity: No data available.

Carcinogenicity: There is limited evidence of carcinogenicity for some isocyanates in animal studies, but no definite link to humans.

Mutagenicity: Not mutagenic

Toxicity for reproduction: Not toxic for reproduction.

Specific target organ toxicity (STOT): May cause respiratory irritation.

Further information It is unlikely that this substance will be swallowed due to its physical properties. However, swallowing small amounts of the active material during normal handling may cause irritation of mouth/throat, nausea and stomach pain. Prolonged exposure to isocyanates (above the WEL) can cause coughing, wheezing, chest tightness, and asthma in sensitive individuals.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

<table>
<thead>
<tr>
<th>Chemical name</th>
<th>Species</th>
<th>Test</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>TITANIUM DIOXIDE</td>
<td>Daphnia</td>
<td>EC50/LC50</td>
<td>&gt;100 mg/l</td>
</tr>
<tr>
<td></td>
<td>Fish</td>
<td>EC50/LC50</td>
<td>&gt;100 mg/l</td>
</tr>
<tr>
<td></td>
<td>Aquatic plants</td>
<td>EC50/LC50</td>
<td>16 mg/l</td>
</tr>
</tbody>
</table>

12.2 Persistence and degradability Inorganic components such as titanium dioxide are not biodegradable. No data available on the other ingredients.

12.3 Bioaccumulative potential No data available.

12.4 Mobility in soil Insoluble in water.

12.5 Results of PBT and vPvB assessment Contains no PBT or vPvB substances.

12.6 Other adverse effects May be harmful to aquatic species.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Disposal operations: Dispose of in accordance with local and national regulations. Do not dispose of waste into sewer.

Do not dispose of together with household waste. Contact licensed waste disposal company.

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Do not burn or use a cutting torch on the empty container.

14. TRANSPORT INFORMATION

Not classified as hazardous for transport purposes.

UN number not required.
15. REGULATORY INFORMATION

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

UK Regulatory References
The Control of Substances Hazardous to Health Regulations 2002 (S.I 2001 No.2677) with amendments.

EU Directives

Statutory Instruments

Guidance Notes
Health and Safety Executive Workplace Exposure Limits EH40.

Volatile Organic Compounds (VOC) content: Nil (Directive 1999/13/EC)

15.2 Chemical Safety Assessment
A Chemical Safety Assessment has not been performed on this product.

16. OTHER INFORMATION


Tariff number: 3506900

Full text of H-statements referred to under sections 2 and 3

H315 Causes skin irritation
H317 May cause an allergic skin reaction
H319 Causes serious eye irritation
H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
H335 May cause respiratory irritation
H351 Suspected of causing cancer
H373 May cause damage to organs through prolonged or repeated exposure

Abbreviations and acronyms

CAS: Chemical Abstract Service (division of the American Chemical Society). (Section 3).
STOT: Single Target Organ Toxicity (Section 3 and 11).
RE: Repeated exposure (section 3)
SE: Single exposure (Section 3)
TWA: Time-weighted average. (Section 8).
STEL: Short-term exposure limit. (Section 8).
DNEL: Derived No Effect Level (Section 8).
PNEC: Predicted No Effect Concentration (Section 8).
EC50: Effective Concentration, 50 percent. (Section 12).
LC50: Lethal Concentration, 50 percent. (Section 11/12).
LD50: Lethal Dose, 50 percent. (Section 11).
PBT: Persistent, Bioaccumulative, Toxic. (Section 12).
vPvB: very Persistent and very Bioaccumulative. (Section 12).
Legal disclaimer: The above information is believed to be correct but does not purport to be all inclusive and shall be used only as a guide. This company shall not be held liable for any damage resulting from handling or from contact with the above product.

[final page]