1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name: POLYISOBUTENE

Other name(s): Polyisobutylene; PiB; Poly(4+-)isobutylene; PiB Molecular weight > 300;

Recommended Use of the Chemical and Restrictions on Use

Polymer (oligomer), plasticiser, binder, chemical reagent.

Supplier: Orica Australia Pty Ltd
ABN: 99 004 117 828
Street Address: 1 Nicholson Street
Melbourne 3000
Australia

Telephone Number: +61 3 9665 7111
Facsimile: +61 3 9665 7937
Emergency Telephone: 1 800 033 111 (ALL HOURS)

Please ensure you refer to the limitations of this Safety Data Sheet as set out in the "Other Information" section at the end of this Data Sheet.

2. HAZARDS IDENTIFICATION

Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.

Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

Poisons Schedule (SUSMP): None allocated.

3. COMPOSITION AND INFORMATION ON INGREDIENTS

Product Description: This material has a molecular weight > 300.

<table>
<thead>
<tr>
<th>Components</th>
<th>CAS Number</th>
<th>Proportion</th>
<th>Hazard Codes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Polyisobutylene</td>
<td>9003-27-4</td>
<td>100%</td>
<td>-</td>
</tr>
</tbody>
</table>

4. FIRST AID MEASURES

For advice, contact a Poisons Information Centre (e.g. phone Australia 131 126; New Zealand 0800 764 766) or a doctor.

Inhalation: Remove victim from area of exposure - avoid becoming a casualty. Seek medical advice if effects persist.

Skin Contact: If skin or hair contact occurs, remove contaminated clothing and wash skin and hair with soap and water. If irritation occurs seek medical advice.
Safety Data Sheet

Eye Contact:
If in eyes, wash out immediately with water. In all cases of eye contamination it is a sensible precaution to seek medical advice.

Ingestion:
Rinse mouth with water. If swallowed, give a glass of water to drink. If vomiting occurs give further water. Seek medical advice.

Indication of immediate medical attention and special treatment needed:
Treat symptomatically.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media:
Fine water spray, normal foam, dry agent (carbon dioxide, dry chemical powder).

Unsuitable Extinguishing Media:
Water jet.

Specific hazards arising from the substance or mixture:
Combustible liquid. On burning will emit toxic fumes, including those of oxides of carbon.

Special protective equipment and precautions for fire-fighters:
Fire fighters to wear self-contained breathing apparatus and suitable protective clothing if risk of exposure to vapour or products of combustion. Keep containers cool with water spray.

6. ACCIDENTAL RELEASE MEASURES

Emergency procedures/Environmental precautions:
If contamination of sewers or waterways has occurred advise local emergency services.

Personal precautions/Protective equipment/Methods and materials for containment and cleaning up:
Slippery when spilt. Avoid accidents, clean up immediately. Wear protective equipment to prevent skin and eye contact. Contain - prevent run off into drains and waterways. Use absorbent (soil, sand or other inert material). Collect and seal in properly labelled containers or drums for disposal.

7. HANDLING AND STORAGE

Classified as a C1 (COMBUSTIBLE LIQUID) for the purpose of storage and handling, in accordance with the requirements of AS 1940. Refer to State Regulations for storage and transport requirements.

Precautions for safe handling:
Avoid skin and eye contact and breathing in vapour, mists and aerosols. Take precautionary measures against static discharges.

Conditions for safe storage, including any incompatibilities:
Store in a cool, dry, well ventilated place. Store away from incompatible materials described in Section 10. Store away from sources of heat or ignition. Keep containers closed when not in use - check regularly for leaks.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters: No value assigned for this specific material by Safe Work Australia.
Appropriate engineering controls:
Use in well ventilated areas. If inhalation risk exists: Use with local exhaust ventilation or while wearing organic vapour respirator. Keep containers closed when not in use.

Individual protection measures, such as Personal Protective Equipment (PPE):
The selection of PPE is dependent on a detailed risk assessment. The risk assessment should consider the work situation, the physical form of the chemical, the handling methods, and environmental factors.

Orica Personal Protection Guide No. 1, 1998: B - OVERALLS, SAFETY SHOES, SAFETY GLASSES, GLOVES.

Wear overalls, safety glasses and impervious gloves. Always wash hands before smoking, eating, drinking or using the toilet. If determined by a risk assessment an inhalation risk exists, wear an organic vapour respirator meeting the requirements of AS/NZS 1715 and AS/NZS 1716.

9. PHYSICAL AND CHEMICAL PROPERTIES

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical state</td>
<td>Liquid</td>
</tr>
<tr>
<td>Colour:</td>
<td>Colourless, Clear</td>
</tr>
<tr>
<td>Odour:</td>
<td>Slight</td>
</tr>
<tr>
<td>Molecular Formula:</td>
<td>(C₄-H₈ₓ)</td>
</tr>
<tr>
<td>Molecular weight:</td>
<td>&gt;300</td>
</tr>
<tr>
<td>Solubility:</td>
<td>Insoluble in water. Soluble in non-polar solvents.</td>
</tr>
<tr>
<td>Specific Gravity:</td>
<td>0.87 - 0.9 @15°C</td>
</tr>
<tr>
<td>Relative Vapour Density (air=1):</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapour Pressure (20 °C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point (°C):</td>
<td>&gt;100</td>
</tr>
<tr>
<td>Flammability Limits (%):</td>
<td>Not available</td>
</tr>
<tr>
<td>Autoignition Temperature (°C):</td>
<td>&gt;200</td>
</tr>
<tr>
<td>Boiling Point/Range (°C):</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Point (°C):</td>
<td>&gt;150</td>
</tr>
<tr>
<td>pH:</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity:</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate:</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point/Range (°C):</td>
<td>Not available</td>
</tr>
</tbody>
</table>

10. STABILITY AND REACTIVITY

Reactivity: No information available.

Chemical stability: Stable under normal conditions of use.

Possibility of hazardous reactions: Hazardous polymerisation will not occur.

Conditions to avoid: Avoid temperatures above 150°C. Avoid exposure to heat, sources of ignition, and open flame.

Incompatible materials: Incompatible with oxidising agents.
11. TOXICOLOGICAL INFORMATION

No adverse health effects expected if the product is handled in accordance with this Safety Data Sheet and the product label. Symptoms or effects that may arise if the product is mishandled and overexposure occurs are:

Ingestion: Swallowing can result in nausea, vomiting, diarrhoea, and abdominal pain.

Eye contact: May be an eye irritant.

Skin contact: Contact with skin may result in irritation.

Inhalation: Inhalation overexposure is not expected at ambient temperatures. Inhalation of vapours/mists from heated product may cause respiratory irritation.

Acute toxicity: No LD50 data available for the product. However, for a similar formulation:

Oral LD50 (rat): >2000 mg/kg

Skin corrosion/irritation: Non-irritant (rabbit).

Serious eye damage/irritation: Non-irritant (rabbit).

Chronic effects: No information available for the product.

12. ECOLOGICAL INFORMATION

Ecotoxicity

The material is not classified as environmentally hazardous, however this does not exclude the possibility that spills can have a harmful or damaging effect on marine life, particularly water birds. Avoid contaminating waterways.

Persistence/degradability: Not readily biodegradable.

Aquatic toxicity: Due to the viscous/sticky nature of this material in contact with water, spills may cause physical damage to organisms, particularly waterbirds. When spilt in marine environments the material floats at or just below the water surface.

96hr LC50 (rainbow trout): >5,600 mg/L
96hr LC50 (fish): >100 mg/L (Leuciscus idus)

13. DISPOSAL CONSIDERATIONS

Disposal methods:
Refer to Waste Management Authority. Dispose of contents/container in accordance with local/regional/national/international regulations. Do not allow this material to be discharged/dumped into aquatic environments.

14. TRANSPORT INFORMATION

Road and Rail Transport
Not classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code (ADG Code) for transport by Road and Rail; NON-DANGEROUS GOODS.
**Marine Transport**
Not classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea; NON-DANGEROUS GOODS.

**Air Transport**
Not classified as Dangerous Goods by the criteria of the International Air Transport Association (IATA) Dangerous Goods Regulations for transport by air; NON-DANGEROUS GOODS.

## 15. REGULATORY INFORMATION

**Classification:**
Based on available information, not classified as hazardous according to Safe Work Australia; NON-HAZARDOUS SUBSTANCE.

**Poisons Schedule (SUSMP):** None allocated.

All the constituents of this material are listed on the Australian Inventory of Chemical Substances (AICS).

## 16. OTHER INFORMATION

This safety data sheet has been prepared by Ixom Operations Pty Ltd Toxicology & SDS Services.

**Reason(s) for Issue:**
Revised Primary SDS

This SDS summarises to our best knowledge at the date of issue, the chemical health and safety hazards of the material and general guidance on how to safely handle the material in the workplace. Since Orica Limited cannot anticipate or control the conditions under which the product may be used, each user must, prior to usage, assess and control the risks arising from its use of the material.

If clarification or further information is needed, the user should contact their Orica representative or Orica Limited at the contact details on page 1.

Orica Limited's responsibility for the material as shipped is subject to the terms and conditions of sale, a copy of which is available upon request.