1: IDENTIFICATION OF MATERIAL AND SUPPLY COMPANY

Supplier: Bituminous Products Pty Ltd
33 Violet Street
REVESBY NSW 2212
ABN No: 19 106 887 094
Business Phone: 02 9772 4433
Facsimile: 02 9792 1016

EMERGENCY CONTACT: John Arvanitidis (Phone) 02 9772 4433
(A/H) 0417 927 715

PRODUCT NAME: Bituflex
UN No.: 3257 (When over 100 degrees C in bulk loads)
DESCRIPTION: (Proper Shipping Name) Elevated Temperature Liquid NOS
DANGEROUS GOODS CLASS: 9
HAZCHEM: 2Y
POISONS SCHEDULE: None
MANUFACTURER'S PRODUCT CODE: 220-2230
RECOMMENDED USE: Pavement Crack Sealant

2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Classified as non-hazardous according to Safe Work Australia

Signal Word
Warning

Hazard Classification
Not classified as hazardous at ambient temperatures.
Classified as Dangerous Goods at Elevated temperatures.

Hazard Statement(s) (When Hot)
H314 Causes severe skin burns and eye damage
Prevention Precautionary Statement(s) (When Hot)
P280 Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statement(s) (When Hot)
P302 + P334 IF ON SKIN: Immerse in cool water/wrap in wet bandages.

COOL AS QUICKLY AS POSSIBLE WITH WATER DO NOT ATTEMPT TO REMOVE BITUMEN FROM SKIN

Storage Precautionary Statement(s)
None

Disposal Precautionary Statement(s)
P501 Dispose of container in accordance with regional and national regulations.

Dangerous Goods Classification
When at elevated temperatures only.
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road & Rail.

Class: 9 Elevated Temperature Liquid NOS

3: COMPOSITION INFORMATION

<table>
<thead>
<tr>
<th>CHEMICAL ENTITY</th>
<th>CAS NUMBER</th>
<th>PROPORTION</th>
</tr>
</thead>
<tbody>
<tr>
<td>BITUMEN</td>
<td>(8052-42-4)</td>
<td>80 - &lt; 95 %</td>
</tr>
<tr>
<td>POLYMERS</td>
<td>(9003-55-8)</td>
<td>10 - &lt; 20 %</td>
</tr>
<tr>
<td>RECYCLED CRUMB RUBBER</td>
<td></td>
<td>5 - &lt;20 %</td>
</tr>
<tr>
<td>Other non hazardous ingredients</td>
<td></td>
<td>&lt; 10 %</td>
</tr>
</tbody>
</table>

4: First Aid Measures

If poisoning occurs seek medical assistance or contact:
Poisons Information Centre on 131 126

INGESTION/SWALLOWED: Do not induce vomiting. Rinse mouth with water. Give a glass of water to drink. If vomiting occurs give further water to drink. SEEK MEDICAL ASSISTANCE.
EYE CONTACT: Flush thoroughly with water for at least 15 minutes. SEEK MEDICAL ASSISTANCE.

SKIN CONTACT: Drench with water and remove contaminated clothing only if not adhered to skin. Rinse skin and hair thoroughly with cool water. If blistering occurs, cover with a clean bandage or burns dressing and SEEK MEDICAL ASSISTANCE.

INHALATION: Remove casualty to fresh air and keep at rest until recovered. If not breathing, apply artificial respiration. If in cardiac arrest, apply external cardiac massage. SEEK MEDICAL ASSISTANCE.

PPE for FIRST AIDERS: Overalls, safety glasses and nitrile gloves. If exposed to vapours, use respirator with organic vapour filter.

ADVICE TO DOCTOR: Refer to AAPA bitumen burns card. Bitumen should only be removed by a burns specialist. Treatment should be directed toward control of symptoms and conditions.

5: Fire Fighting Measures

HAZCHEM CODE: 2Y

FIRE EXTINGUISHING MEDIA: Dry chemical, foam, carbon dioxide, and water fog.

SPECIFIC HAZARDS: Elevated temperature liquid is combustible.

FIRE AND EXPLOSION HAZARD: Will produce toxic fumes when burning – wear breathing apparatus.

6: Accidental Release Measures

SMALL SPILLS: Wear safety glasses, heat resistant impermeable gloves and organic vapour respirator if required. Prevent from flowing by damming with earth or sand. Allow to cool and solidify and dispose of with dry waste.
LARGE SPILLS: Stop source of leak/loss of containment if safe to do so. Isolate and eliminate ignition sources. Remove all non-essential personnel from area. Clean up personnel to wear boots overalls, heat resistant gloves, face visor and organic vapour respirator. Work upwind. Prevent contamination of drains and waterways. Use sand to dam molten material. Allow to cool and solidify and clean up spilt material with shovels or mechanical means. Dispose of according to local environmental authority requirements. Seek assistance of EPA and emergency services if there is a chance of entering drains and water ways.

7: Handling and Storage

DANGEROUS GOODS CLASS: 9 (When Hot)  SUB RISK: None

Handling: Avoid skin contact and inhalation of vapour and mist.

Storage: Store in a cool dry place.

Transport: Non-hazardous at ambient temperatures. When transported at elevated temperature, must be in accordance with the Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road and Rail.

8: Exposure Controls, Personal Protection

National Exposure Standards: There is no Australian Workplace Standard for this product. Provide adequate ventilation during use.

However, TWA for bitumen fumes is 5 mg/m³ according to Safe Work Australia.

TWA is Time Weighted Average airborne concentration over an eight hour period five days per week over an entire working life.

Provide adequate ventilation. If using indoors, keep windows and doors open during use. Keep containers closed when not in use. These directions should prevent the TWA being exceeded.

Biological Limit Values: No Biological Limit Value allocated as per the National Model Regulations for the Control of Workplace Hazardous Substances (Safe Work Australia).
ENGINEERING CONTROLS: At elevated temperatures ensure ventilation is adequate to maintain air concentrations below exposure standards. Use only in well ventilated areas. If ventilation cannot be provided, wear organic vapour respirator. Do not enter confined spaces where vapours may have accumulated.

PERSONAL PROTECTION EQUIPMENT: At elevated temperatures
OVERALLS, SAFETY SHOES OR BOOTS, SAFETY GLASSES, GLOVES, RESPIRATOR.

A respirator suitable for organic vapours must be used in poorly ventilated areas.
**Glove type** - Heat Resistant Gauntlet gloves should be used when handling material.

**Eye protection** - If splashing is possible use a full face shield over safety glasses as added protection.

**Clothing protection** – Wear industrial-type work clothing or overalls and safety footwear.

**Workplace** - Ensure that eyewash and safety shower are available and in good working condition wherever this product is being used at elevated temperatures.

### 9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>FORM:</strong></td>
<td>Solid at ambient temperatures</td>
</tr>
<tr>
<td><strong>APPEARANCE:</strong></td>
<td>Black solid</td>
</tr>
<tr>
<td><strong>ODOUR:</strong></td>
<td>characteristic bitumen odour</td>
</tr>
<tr>
<td><strong>PACK SIZE(S):</strong></td>
<td>20 kg</td>
</tr>
<tr>
<td><strong>BOILING POINT (°C):</strong></td>
<td>not applicable</td>
</tr>
<tr>
<td><strong>MELTING POINT (°C):</strong></td>
<td>120 °C</td>
</tr>
<tr>
<td><strong>VAPOUR PRESSURE (KPa):</strong></td>
<td>Not applicable</td>
</tr>
<tr>
<td><strong>SPECIFIC GRAVITY @ 25 °C:</strong></td>
<td>1.03</td>
</tr>
<tr>
<td><strong>SOLUBILITY IN WATER (% BY WT.):</strong></td>
<td>Not soluble</td>
</tr>
<tr>
<td><strong>FLASH POINT (°C)-METHOD:</strong></td>
<td>&gt;250 °C (closed cup)</td>
</tr>
<tr>
<td><strong>FLAMMABILITY LIMITS IN AIR (% VOLUME):</strong></td>
<td>LOWER: 50, UPPER: 50</td>
</tr>
<tr>
<td><strong>VOLATILE ORGANIC COMPOUNDS:</strong></td>
<td>nil</td>
</tr>
<tr>
<td><strong>AUTOIGNITION TEMPERATURE:</strong></td>
<td>250°C</td>
</tr>
</tbody>
</table>

### 10: Stability and Reactivity

**Reactivity**: Strong oxidising agents will violently react with this product otherwise, no reactivity hazards are known.

**Chemical Stability**: This product is thermally stable at ambient temperatures.

**Conditions to avoid**: Overheating and ignition sources.
**Incompatible materials:** Oxidising Agents.

**Hazardous Decomposition Products:** Sulphur compounds, Carbon monoxide and carbon dioxide.

**11: Toxicological Information**

No adverse health effects can be expected provided that the product is handled and used in accordance with the directions of this Safety Data Sheet.

**Possible health effects from overexposure or misuse:**

**ACUTE EFFECTS:**
- **SWALLOWED:** Non-toxic however, ingestion of material may cause gastrointestinal disturbance, including irritation, nausea and vomiting.
- **EYES:** Direct eye contact may cause irritation.
- **SKIN:** Contact with skin may result in skin reactions.
- **INHALATION:** Inhalation of vapours may cause headaches and/or dizziness. Overexposure to vapour may result in respiratory tract irritation.

**CHRONIC:**
- **Mutagenicity:** Not classified as a mutagen
- **Carcinogenicity:** Not classified as a carcinogen
- **Reproductive toxicity:** Not classified.
- **Specific Target Organ Toxicity (repeat exposure):** Has not been classified

**12: Ecological Information**

Do not allow product to enter waste water, stormwater, rivers or creeks.

**Acute Aquatic Hazard:** Not determined as a marine pollutant however, before drying, will form a slick on top of water which could be hazardous to birds and fish. Residual bitumen is non-toxic and non-soluble in water.

**Long term Aquatic Hazard:** No information is available

**Ecotoxicity:** No information is available.

**Persistence and degradability:** No information is available.

**Bioaccumulative potential:** No information is available.

**Mobility:** No information is available.

**13: Disposal Considerations**

**Disposal Methods:**

Wherever possible, re-use, reprocess or recycle any reclaimed material to reduce waste.
- Contained spills need to be disposed via dry waste.
  - Once solidified, the material may be disposed of as solid waste in conformity with the requirements of the Regulatory Authorities.
- Refer Section 8 for Exposure Controls

14: Transport Information

Not Dangerous Goods in Solid form.

Road and Rail Transport: Classified as Dangerous Goods at elevated temperatures only by the Australian Dangerous Goods Code for Transport by Road and Rail

U.N. Number: 3257

Proper Shipping Name: Elevated Temperature Liquid NOS

DG Class: 9

Hazchem Code: 2Y

Emergency Response Guide No 15

Segregation: Not to be loaded with Class 1 Explosives, Class 2.1 Flammable Gases, Class 2.3 Toxic Gases, Class 4.2 Spontaneously Combustible Substances, Class 5.1 Oxidising Agents, Class 5.2 Organic Peroxides or Class 7 Radioactive Substances. Segregation devices and exemptions may apply.


Air Transport: Classified as Dangerous Goods by the International Air Transport Association (IATA). Dangerous Goods Regulations for transport by air.

15: Regulatory Information

This material is not subject to the following international agreements:
Montreal Protocol (Ozone depleting substances)
The Stockholm Convention (Persistent Organic Pollutants)
The Rotterdam Convention (Prior Informed Consent)

This material is subject to the following requirements:

Australian Dangerous Goods Code, IMDG, IATA
Class: Class 9
U.N. Number: 3257
Proper Shipping Name: Elevated Temperature Liquid NOS

Product Name: BITULASTIC BITUFLEX
The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Therapeutic Goods Act (Commonwealth)

Poisons Schedule: Not on schedules

Storage:
Non dangerous goods in solid form.
AS1940 AND AS3833 FOR STORAGE REQUIREMENTS AT ELEVATED TEMPERATURES ONLY.

16: Other Information

Contact Person: John Arvanitidis, Bituminous Products Pty Ltd
02 9772 4433
After hours 0417 927 715

This Safety Data Sheet has been complied in accordance with GHS Guidance for the preparation of Safety Data Sheets and COP Preparation of SDS for Hazardous Chemicals Safe Work Australia.
Where applicable, specific chemical composition details are provided to allow the product to be classified according to UN Number, HAZCHEM coding etc.
The information contained herein is based on the data available to BITUMINOUS PRODUCTS PTY LTD from both our suppliers and technical sources and from recognized published references and is believed to be both accurate and reliable. BITUMINOUS PRODUCTS PTY LTD has made no effort to censor or to conceal deleterious aspects of this product. Since we cannot anticipate or control the many different conditions under which this information and our products may be used, each user should review these recommendations in the specific context of the intended application and confirm whether they are appropriate.

Due care should be taken to make sure that the use or disposal of the product is in compliance with the appropriate Federal, State, and Local Government regulations.

END OF SDS