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: Bituseal
UN No.: 1999
DESCRIPTION: (Proper Shipping Name) Tars, Liquid including Road Oils and Cutback Bitumen
DANGEROUS GOODS CLASS: 3
PACKAGING GROUP: III
HAZCHEM: 2W
POISONS SCHEDULE: S6
MANUFACTURER'S PRODUCT CODE: 220-2360
RECOMMENDED USE: Bitumen Pavement Rejuvenation

2: HAZARDS IDENTIFICATION

HAZARD CLASSIFICATION: Classified as hazardous according to Safe Work Australia

Signal Word
Warning

Hazard Classification
Flammable Liquids – Category 3

Hazard Statement(s)
H226 Flammable liquid and vapour
Prevention Precautionary Statement(s)
P102     Keep out of reach of children
P103     Read label before use
P210     Keep away from all sources of ignition – No smoking
P233     Keep container tightly closed
P240     Ground/bond container and receiving equipment
P241     Use explosion-proof electrical, ventilating, lighting and all other equipment.
P242     Use only non-sparking tools
P243     Take precautionary measures against static discharge
P280     Wear protective clothing, gloves, eye/face protection and suitable respirator.

Response Precautionary Statement(s)
P101     If medical advice is needed, have product container or label at hand.
P303+P361+P353     If ON SKIN (or hair): Remove/Take off immediately all contaminated clothing. Rinse skin with water/shower.
P370+P378     In case of fire: Use alcohol resistant foam, standard foam or dry agent for extinguishing.

Storage Precautionary Statement(s)
P403+P233     Store in a well ventilated place. Keep container tightly closed.

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

Dangerous Goods Classification
Classified as Dangerous Goods by the criteria of the Australian Dangerous Goods Code for the Transport of Dangerous Goods by Road & Rail.

Class: 3 Flammable Liquid

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>40 - &lt; 60 %</td>
</tr>
<tr>
<td>LIQUID HYDROCARBONS</td>
<td>(64742-88-7)</td>
<td>40 - &lt; 60 %</td>
</tr>
<tr>
<td>CARBON BLACK</td>
<td>(1333-86-4)</td>
<td>5 – &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 ADVICE.

SKIN CONTACT: For large scale contamination, drench with water and remove contaminated clothing. Wash skin and hair thoroughly with soap and water. If blistering occurs, cover with a clean bandage 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, PVC or Nitrile gloves. If exposed to vapours, use respirator with organic vapour filter.

ADVICE TO DOCTOR: Product may be removed from skin using cotton wool pads soaked in castor oil or hand cleaner. Treatment should be directed toward control of symptoms and conditions.

5: Fire Fighting Measures

HAZCHEM CODE:  2W

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

SPECIFIC HAZARDS: Flammable Liquid. Can form flammable vapour mixtures with air. Avoid ignition sources. Flameproof/explosion proof equipment to be used where vapours are present. No smoking.

FIRE AND EXPLOSION HAZARD: Closed containers may explode when exposed to heat (fire). Keep containers cool with water spray. This product will emit flammable vapours. Will produce toxic fumes when burning – wear breathing apparatus.

6: Accidental Release Measures

SMALL SPILLS: Wear safety glasses, impermeable gloves and organic vapour respirator if required. Clean up with rags or paper towels. Allow to dry in well ventilated area and dispose of with dray 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, solvent proof gloves, goggles or face visor and organic vapour respirator. Work upwind and/or provide intrinsically safe ventilation. Prevent contamination of drains and waterways. Use absorbent to clean up spilt material using non sparking tools. Collect spent absorbent material in sealed drums or containers and 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.

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**7: Handling and Storage**

**DANGEROUS GOODS CLASS:** 3 PG III  
**SUB RISK:** None

**Handling:** Avoid skin contact and inhalation of vapour and mist. Do not use pressure to empty drums.

**Storage:** Store in a cool dry place according to the requirements for a manufactured packaged product containing class 3 flammable liquid. Store in areas/building designed to comply with the appropriate dangerous goods regulations. Protect from physical damage. Keep container closed when not in use.

**Transport:** should be in accordance with the Australian Dangerous Goods Code for the transport of dangerous goods by road and rail.

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**8: Exposure Controls, Personal Protection**

**National Exposure Standards:** There is no Australian Workplace Standard for this product. However, TWA for white spirits is 790 mg/m$^3$ 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: Keep containers closed when not in use. 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: YELLOW: OVERALL, SAFETY SHOES OR BOOTS, SAFETY GLASSES, GLOVES, RESPIRATOR.

A respirator suitable for organic vapours must be used in poorly ventilated areas. Air supplied respirators should be used in areas with inadequate oxygen and high vapour concentrations.

Glove type - PVC gloves or other solvent proof gloves should be used when handling material.

Eye protection - Use close fitting chemical safety goggles, otherwise use safety glasses fitted with side shields. If splashing is possible use a 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 or manufactured.

Hygiene measures: Keep away from food and drink. Do not eat or drink while using this product. Always wash hands thoroughly prior to eating, drinking or using the toilet. Always launder or replace contaminated clothing or PPE before storing or reusing.

9: Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>FORM</td>
<td>Liquid</td>
</tr>
<tr>
<td>APPEARANCE</td>
<td>Black paint</td>
</tr>
<tr>
<td>ODOR</td>
<td>Mineral Turps characteristic odour</td>
</tr>
<tr>
<td>PACK SIZE(S):</td>
<td>20 litre, 205 litre</td>
</tr>
<tr>
<td>BOILING POINT (°C):</td>
<td>&gt; 149° C</td>
</tr>
<tr>
<td>MELTING POINT (°C):</td>
<td>Not Applicable</td>
</tr>
<tr>
<td>VAPOUR PRESSURE (KPa) :</td>
<td>&lt;3.3</td>
</tr>
<tr>
<td>SPECIFIC GRAVITY @ 25 °C:</td>
<td>0.92</td>
</tr>
<tr>
<td>SOLUBILITY IN WATER (% BY WT.):</td>
<td>Not soluble</td>
</tr>
<tr>
<td>FLASH POINT (°C)-METHOD:</td>
<td>38 °C (closed cup)</td>
</tr>
<tr>
<td>FLAMMABILITY LIMITS IN AIR (% VOLUME):</td>
<td>LOWER 0.4        UPPER 7</td>
</tr>
<tr>
<td>VOLATILE ORGANIC COMPOUNDS:</td>
<td>50%</td>
</tr>
<tr>
<td>AUTOIGNITION TEMPERATURE:</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: Elevated temperatures and ignition sources.

Incompatible materials: Oxidising Agents.

Hazardous Decomposition Products: 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: 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 soaked up and disposed into a metal container (avoid using plastic containers).
  - Once dry, the absorbed 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

Road and Rail Transport: Classified as Dangerous Goods by the Australian Dangerous Goods Code for Transport by Road and Rail
U.N. Number: 1999
Proper Shipping Name: Tars, liquid, including road oils and cutback bitumen
DG Class: 3
Packing Group: III
Hazchem Code: 2W
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 3 PG III
- **U.N. Number:** 1999
- **Proper Shipping Name:** Tars Liquid, including Road Oils and Cutback Bitumen

**The Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP) Therapeutic Goods Act (Commonwealth)**
- **Poisons Schedule:** S6

**Storage:**
- AS1940 AND AS3833 FOR STORAGE REQUIREMENTS.

### 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**