



Safety Data Sheet

Bitulastic S45R

Classified as Non Hazardous

Dangerous Goods only when at elevated temperatures

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

PRODUCT NAME: S45R
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: 220-2530
RECOMMENDED USE: Polymer Modified Bitumen Binder

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

<u>CHEMICAL ENTITY</u>	<u>CAS NUMBER</u>	<u>PROPORTION</u>
BITUMEN	(8052-42-4)	80 - < 98 %
CRUMB RUBBER	None	5 - < 20%
Other non hazardous ingredients		< 10 %

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:

DO NOT ATTEMPT TO REMOVE BITUMEN FROM SKIN

Drench with water for at least 15 minutes to cool the bitumen. Remove contaminated clothing only if not adhered to skin. Rinse skin and hair thoroughly with cool water. If blistering occurs, cover with a clean non-stick 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. Ensure good ventilation when using and avoid, as far as reasonably practicable, the inhalation and contact with vapours, mists or fumes which may be generated during use. If such vapour, mists or fumes are generated, their concentration in the workplace air should be controlled to the lowest reasonable practicable level.

Good working practices, high standards of personal hygiene and plant cleanliness must be maintained at all times. Whilst using, do not eat, drink or smoke. Wash hands thoroughly after contact.

Vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards, even at temperatures below the normal flash point. Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electricity discharge and all ignition sources during filling, sampling etc from storage tanks. Ensure equipment used is properly earthed or bonded. Will present a flammability hazard if heated above the flash point but bulk liquids at normal storage temperatures present a low fire hazard. Product should not be overheated in storage because of the risk of fire. Do NOT pressurise, cut, heat or weld empty containers as they may contain hazardous residues.

Toxic quantities of hydrogen sulphide (H₂S) may be present in storage and rundown tanks, marine vessel compartments, sump pits or other confined spaces which contain or have contained this material. When opening valves, hatched or dome covers, stand upwind, keep face as far from the opening as possible and avoid breathing any gases or vapours. When exposure concentrations are unknown, respiratory protection must be used. These devices should not be relied on for life-threatening concentrations. As an indicator of H₂S concentration, the rotten eggs odour is unreliable because it may be masked by other odours. In addition, H₂S fatigues the sense of smell rapidly. Therefore DO NOT ATTEMPT RESCUE WITHOUT WEARING APPROVED SUPPLIED-AIR respiratory equipment.

Storage: Store in a cool dry place. Store as per the requirements of AS1940- The Storage and Handling of Flammable and Combustible Liquids.

Do not overheat in storage. Store away from moisture and sources of ignition. Prohibit water contacting hot bitumen because of the danger of boil-over.

Particular care should be taken to ensure that bulk storage tanks are watertight and that any steam heating coils are regularly checked for leaks.

The storage temperature in bulk storage should not fluctuate above and below 100°C as this increases the risk of water condensation leading to boil-over. Care



must always be exercised when heating bitumen.

Highly toxic hydrogen sulphide gas may be emitted from hot product and accumulate in enclosed spaces or tanks. Extreme care must therefore be taken during venting of tanks and enclosed spaces which have, at any time, contained hot product. Under no circumstances should entry be made into small enclosures without taking full precautions. Confined spaces contaminated with hydrogen sulphide must always be considered as constituting potentially life-threatening environments.

Pyrophoric (self-heating) deposits, which may cause fire or explosion, may be formed in storage. Avoid exposure of tank vapour space to fresh air, and maintain stable storage temperatures.

Regular inspection for such deposits will indicate when tank cleaning is necessary.

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. Hydrogen Sulphide TWA is 14 mg/m³ and STEL is 21 mg/m³

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. Where ventilation is inadequate and vapours or mists are generated the use of an approved respirator with organic vapour/particulate filter complying with AS/NZS 1715 and AS/NZS 1716 is recommended. Final choice of appropriate breathing protection is dependant upon actual airborne concentrations and the type of breathing protection required will vary according to individual requirements.

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

FORM:	Solid at ambient temperatures
APPEARANCE:	Black solid
ODOUR:	characteristic bitumen odour
PACK SIZE(S):	Bulk
BOILING POINT (°C):	not applicable
MELTING POINT (°C):	>90 °C
VAPOUR PRESSURE (KPa) :	Not applicable
SPECIFIC GRAVITY @ 25 °C:	1.06
SOLUBILITY IN WATER (% BY WT.):	Not soluble
FLASH POINT (°C)-METHOD:	>250 °C (closed cup)
FLAMMABILITY LIMITS IN AIR (% VOLUME):	LOWER UPPER Not applicable
VOLATILE ORGANIC COMPOUNDS:	nil
AUTOIGNITION TEMPERATURE:	250°C

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: Long term storage at elevated temperatures can generate VOC's, 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. The greatest hazard is the possibility of skin burns as these products are used at temperatures of 180°C to 195°C.

INHALATION: Inhalation of vapours may cause headaches and/or dizziness. Overexposure to vapour may result in respiratory tract irritation. This product can release H₂S. The primary hazard of H₂S is inhalation overexposure. Odour is an unreliable indicator of concentration as olfactory fatigue occurs rapidly. Inhalation of H₂S at airborne levels of approximately 50-70 ppm may result in irritation of the eyes and respiratory tract mucosa. Overexposure to higher concentrations may produce signs and symptoms of headache, dizziness, nausea, vomiting, coughing and a sensation of dryness and pain of the nose, throat and chest. An atmosphere containing 1000-2000 ppm H₂S may be immediately hazardous to life. Prolonged or frequently repeated exposure to H₂S may result in chronic health effects characterised by local irritation of the eyes, respiratory tract and skin. Small amounts of H₂S can be absorbed through the skin, but absorption is too slow to result in poisoning. Inhalation of vapours may irritate the throat.

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 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.

Marine Transport: Classified as Dangerous Goods by the International Maritime Dangerous Goods Code (IMDG Code) for Transport by Sea.

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

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 compiled 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