



Fulton Hogan

SAFETY DATA SHEET

PAVEFLEX®

Infosafe No.: LQ0MP
ISSUED Date : 16/02/2022
ISSUED by: Fulton Hogan Industries Pty Ltd

Section 1 - Identification

Product Identifier

PAVEFLEX®

Company Name

Fulton Hogan Industries Pty Ltd (ABN 54 000 630 689)

Address

Level 1, Bld 7,
Botanicka Corporate Park
572 Swan Street Richmond
VIC 3121 AUSTRALIA

Telephone/Fax Number

Tel: (03)9340 6200

Emergency Phone Number

1800 161 357 (24h)

Recommended use of the chemical and restrictions on use

Polymer Modified Binder (PMB) for use in asphalt.

Other Names

Name	Product Code
PAVEFLEX® A10E	
PAVEFLEX® A15E	
PAVEFLEX® A20E	
PAVEFLEX® A0.6S	
PAVEFLEX® A5S	
PAVEFLEX® A10S	
PAVEFLEX® A5E	
PAVEFLEX® A25E	
PAVEFLEX® A35P	
POLYMER MODIFIED BINDER	
SBS POLYMER MODIFIED BINDER	

Section 2 - Hazard(s) Identification

GHS classification of the substance/mixture

Not classified as Hazardous according to the Globally Harmonised System of Classification and Labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail. (7th edition)

Other Information

Not classified as Dangerous Goods at ambient temperature.

Classified as Dangerous Goods when transported at or above 100°C and below its flash point.

Section 3 - Composition and Information on Ingredients

Ingredients

Name	CAS	Proportion
Bitumen	8052-42-4	>75 %
Extracts, petroleum, residual oil solvent	64742-10-5	<15 %
Styrene, 1,3- butadiene polymer	9003-55-8	<10 %
Vinyl acetate ethylene copolymer	24937-78-8	<10 %

Section 4 - First Aid Measures

Inhalation

If inhaled, remove affected person from contaminated area. Keep at rest until recovered. If symptoms develop and/or persist seek medical attention.

Ingestion

Do not induce vomiting. Wash out mouth thoroughly with water. Seek medical attention.

Skin

For product at ambient temperature:

Wash affected area thoroughly with soap and water. If symptoms develop seek medical attention.

If contact with hot product occurs:

Do not attempt to remove any bitumen or clothing or material that is stuck to the bitumen. Immediately cool the burnt area by flushing with water for at least 20 minutes. Do not use ice. Cover any exposed burns (those not covered with bitumen) with clean non-stick burns dressing, do not wrap dressing too tightly. Do not attempt to clean affected area. Do not apply lotions or ointments. Do not dress areas covered with bitumen as dressing may adhere to bitumen. Seek medical attention.

Eye

For product at ambient temperature:

If in eyes, hold eyelids apart and flush the eyes continuously with running water. Continue flushing for several minutes until all contaminants are washed out completely. If symptoms develop and persist seek medical attention.

If contact with hot product occurs:

Immediately cool the burnt area by flushing with water for at least 20 minutes. Do not attempt to clean effected area. Do not apply lotions or ointments. Do not dress covered areas (bitumen) as dressing may adhere to bitumen. Seek medical attention.

First Aid Facilities

Eyewash, safety showers and normal washroom facilities.

Bitumen Burns Cards (available from Fulton Hogan or Australian flexible Pavements Association (AfPA)) should be kept within first aid kits as a reference for first aiders and medical professionals. Attach the Bitumen Burns Card to the casualty and accompany them to hospital.

Advice to Doctor

Burns caused by bitumen require special medical treatment. Consultation with a burns specialist experienced in bitumen burns is

advisable in the first instance.

Treat symptomatically. DO NOT attempt to remove product from skin, bitumen will be adhered to the skin and skin removal will occur, hot bitumen will form a sterile and waterproof layer, thus can and should be left in place. After cooling, the bitumen it should be left in place and covered with a tulle dressing, containing paraffin or a burn ointment, this will help soften the bitumen. Where hot bitumen has completely encircled a limb the cooled bitumen may cause a constricting effect, if this is the case the bitumen must be softened and/or split to prevent restriction of blood flow. Consultation with a burns specialist should be sought for full thickness and burns to the eye.

Other Information

For advice in an emergency, contact a Poisons Information Centre (Phone Australia 131 126) or a doctor at once.

Section 5 - Firefighting Measures

Suitable Extinguishing Media

Use carbon dioxide, dry chemical, foam, water mist or water spray.

Hazards from Combustion Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide.

Specific hazards arising from the chemical

Combustible solid, but is unlikely to catch fire.

Hazchem Code

2Y

Decomposition Temperature

Not available

Precautions in connection with Fire

Fire fighters should wear Self-Contained Breathing Apparatus (SCBA) operated in positive pressure mode and full protective clothing to prevent exposure to vapours or fumes. Water spray may be used to cool down heat-exposed containers. Fight fire from safe location. This product should be prevented from entering drains and watercourses.

Section 6 - Accidental Release Measures

Emergency Procedures

Wear appropriate personal protective equipment and clothing to prevent exposure. Extinguish or remove all sources of ignition and stop leak if safe to do so. Increase ventilation. Evacuate all unprotected personnel. If possible contain the spill. Place inert absorbent, non-combustible material onto spillage. Use clean non-sparking tools to collect the material and place into suitable labelled containers for subsequent recycling or disposal. Dispose of waste according to the applicable local and national regulations. If contamination of sewers or waterways occurs inform the local water and waste management authorities in accordance with local regulations.

Section 7 - Handling and Storage

Precautions for Safe Handling

Avoid inhalation of vapours and mists, and skin or eye contact. Use only in a well ventilated area. Keep containers sealed when not in use. Prevent the build up of mists or vapours in the work atmosphere. Do not use near ignition sources. Do not pressurise, cut, heat or weld containers as they may contain hazardous residues. Maintain high standards of personal hygiene by washing hands prior to eating, drinking, smoking or using toilet facilities.

Conditions for safe storage, including any incompatibilities

Store in a cool, dry, well-ventilated area away from sources of ignition, oxidising agents, strong acids, foodstuffs, and clothing. Keep containers closed when not in use, securely sealed and protected against physical damage. Inspect regularly for deficiencies such as damage or leaks. Have appropriate fire extinguishers available in and near the storage area. Take precautions against static electricity discharges. Use proper grounding procedures. Ensure that storage conditions comply with applicable local and national regulations.

For information on the design of the storeroom, reference should be made to Australian Standard AS1940 - The storage and handling of flammable and combustible liquids.

For information on the handling of Combustible dusts and grounding procedure reference should be made to Australian Standard AS/NZS 4745 - 'Code of Practice for Handling Combustible Dusts'.

Section 8 - Exposure Controls and Personal Protection

Occupational exposure limit values

No exposure standards have been established for this material. However, the available exposure limits for ingredients are listed below:

Bitumen fumes
TWA: 5 mg/m³

Extracts, petroleum, residual oil solvent
TWA: 5 mg/m³

Hydrogen sulphide
TWA: 10 ppm
TWA: 14 mg/m³
STEL: 15 ppm
STEL: 21 mg/m³

TWA (Time Weighted Average): The average airborne concentration of a particular substance when calculated over a normal eight-hour working day, for a five-day week.

STEL (Short Term Exposure Limit): The average airborne concentration over a 15 minute period which should not be exceeded at any time during a normal eight-hour workday.

Source: Safe Work Australia

Biological Monitoring

No biological limits allocated.

Control Banding

Not available

Engineering Controls

Provide sufficient ventilation to keep airborne levels below the exposure limits or as low as possible. Where vapours or mists are generated, particularly in enclosed areas, and natural ventilation is inadequate, a flameproof exhaust ventilation system is required. Refer to relevant regulations for further information concerning ventilation requirements.

Respiratory Protection

If engineering controls are not effective in controlling airborne exposure then an approved respirator with a replaceable mist filter should be used. Reference should be made to Australian/New Zealand Standards AS/NZS 1715, Selection, Use and Maintenance of Respiratory Protective Devices; and AS/NZS 1716, Respiratory Protective Devices, in order to make any necessary changes for individual circumstances.

Eye and Face Protection

Safety glasses with side shields or chemical goggles should be worn. Final choice of appropriate eye/face protection will vary according to individual circumstances. Eye protection should conform with Australian/New Zealand Standard AS/NZS 1337 (series) - Eye Protectors for Industrial Applications.

Hand Protection

Wear gloves of impervious material such as PVC or leather. Final choice of appropriate gloves will vary according to individual circumstances i.e. methods of handling or according to risk assessments undertaken. Occupational protective gloves should conform to relevant regulations. Reference should be made to AS/NZS 2161.1: Occupational protective gloves - Selection, use and maintenance.

Thermal Hazards

No further relevant information available.

Body Protection

Suitable protective work wear, e.g. cotton overalls buttoned at neck and wrist is recommended. Chemical resistant apron is recommended where large quantities are handled.

Section 9 - Physical and Chemical Properties

Properties	Description	Properties	Description
Form	Liquid – Solid	Appearance	Brown/black semi solid at ambient temperature; liquid at elevated temperature
Colour	Not available	Odour	Bitumen odour
Melting Point	Not available	Melting/Freezing Point	Not available
Boiling Point	> 320°C	Decomposition Temperature	Not available
Solubility in Water	Insoluble	Specific Gravity	0.99 - 1.3 (at 25°C)
pH	Not applicable	Vapour Pressure	Not available
Relative Vapour Density (Air=1)	Not available	Evaporation Rate	Not available
Odour Threshold	Not available	Viscosity	Not available
Partition Coefficient: n-octanol/water (log value)	Not available	Density	Not available
Flash Point	> 240°C	Flammability	Combustible
Auto-Ignition Temperature	> 300°C	Flammable Limits - Lower	Not available
Flammable Limits - Upper	Not available	Explosion Limit - Upper	Not available
Explosion Limit - Lower	Not available		

Section 10 - Stability and Reactivity

Chemical Stability

Stable under normal conditions of storage and handling.

Possibility of hazardous reactions

Will react with incompatibles.

Conditions to Avoid

Heating above maximum recommended storage temperature, flames and other sources of ignition.

Incompatible Materials

Strong oxidizing agents.

Hazardous Decomposition Products

Under fire conditions this product may emit toxic and/or irritating fumes and gases including carbon monoxide and carbon dioxide. Hydrogen sulphide may accumulate in tanks during long term storage at high temperatures. For this reason tank vapour spaces should be regarded as hazardous.

Reactivity and Stability

Reacts with incompatible materials.

Hazardous Polymerization

Will not occur.

Section 11 - Toxicological Information

Toxicology Information

No toxicity data available for this material.

Ingestion

Ingestion of this product may irritate the gastric tract causing nausea and vomiting.

Inhalation

Inhalation of product vapours may cause irritation of the nose, throat and respiratory system.

Skin

May be irritating to skin. The symptoms may include redness, itching and swelling. Contact with hot bitumen can cause thermal burns.

Eye

May be irritating to eyes. The symptoms may include redness, itching and tearing. Contact with hot bitumen can cause severe eye burns and/or blindness.

Respiratory Sensitisation

Not expected to be a respiratory sensitiser.

Skin Sensitisation

Not expected to be a skin sensitiser.

Germ Cell Mutagenicity

Not considered to be a mutagenic hazard.

Carcinogenicity

Not considered to be a carcinogenic hazard.

Bitumen is listed as a Group 2B: Possibly carcinogenic to humans according to International Agency for Research on Cancer (IARC). Extracts, petroleum, residual oil solvent and Styrene-butadiene copolymers are listed as a Group 3: Not classifiable as to carcinogenicity to humans according to International Agency for Research on Cancer (IARC).

Reproductive Toxicity

Not considered to be toxic to reproduction.

STOT - Single Exposure

Not expected to cause toxicity to a specific target organ.

STOT - Repeated Exposure

Not expected to cause toxicity to a specific target organ.

Aspiration Hazard

Not expected to be an aspiration hazard.

Other Information

Bitumen contains low concentrations of Polycyclic Aromatic Compounds at ambient temperatures these compounds are not considered bi-available, when bitumen is heated these compounds are believed to become bio-available. A two year study inhalation on rats was negative. IARC 2B classification is that occupational exposure to hard bitumen's and their emissions during mastics operations and paving are 'possibly carcinogenic to humans'.

Section 12 - Ecological Information

Ecotoxicity

No ecological data available for this material.

Persistence and degradability

Expected to be not biodegradable.

Mobility

Absorbs into soil and has low mobility. In water will float or sink with little tendency to disperse, will absorb into silts.

Other Adverse Effects

Not available

Environmental Protection

Prevent this material entering waterways, drains and sewers.

Hazardous to the Ozone Layer

This product is not expected to deplete the ozone layer.

Section 13 - Disposal Considerations

Disposal Considerations

The disposal of the spilled or waste material must be done in accordance with applicable local and national regulations. To minimise personal exposure to the chemical, refer to Section 8—Exposure controls and personal protection.

Section 14 - Transport Information

Transport Information

Not classified as Dangerous Goods when transported at ambient temperature for transport by road and rail, air and sea.

Classified as Dangerous Goods when transported at or above 100°C and below its flash point.

Road and Rail Transport (ADG Code):

This material is classified as Dangerous Goods Class 9 Miscellaneous Dangerous Goods

Class 9: Miscellaneous substances Dangerous Goods are incompatible in a placard load with any of the following:

Class 1: Explosives (when the class 9 substance is a fire risk substance) Division 5.1: Oxidising substances (when the class 9 substance is a fire risk substance) and

Division 5.2: Organic peroxides (when the class 9 substance is a fire risk substance)

Note: Special Provision AU01:

Environmentally Hazardous Substances meeting the descriptions of UN 3077 or UN 3082 are not subject to this Code when transported by road or rail in:

packagings that do not incorporate a receptacle exceeding 500 kg(L); or

IBCs

Marine Transport (IMO/IMDG):

Classified as Dangerous Goods by the criteria of the International Maritime Dangerous Goods Code (IMDG Code) for transport by sea.

Class/Division: 9

UN No: 3257

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (Contains: Bitumen)

Packing Group: III

EMS : F-A, S-P

Special Provisions: 232, 274

Air Transport (ICAO/IATA):

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

Class/Division: 9

UN No: 3257

Proper Shipping Name: ELEVATED TEMPERATURE LIQUID, N.O.S. (CONTAINS BITUMEN)

Packing Group: III

Packaging Instructions (passenger & cargo): Forbidden

Packaging Instructions (cargo only): Forbidden

ADG U.N. Number

3257

ADG Proper Shipping Name

ELEVATED TEMPERATURE LIQUID, N.O.S.

ADG Transport Hazard Class

9

ADG Packing Group

III

Hazchem Code

2Y

IERG Number

15

Special Precautions for User

Any liquid which is transported at or above 100°C but below its flashpoint. May cause fire if in contact with combustible material due to extreme temperature.

IMDG Marine pollutant

No

Transport in Bulk

Not available

Section 15 - Regulatory Information

Regulatory Information

Not classified as Hazardous according to the Globally Harmonised System of classification and labelling of chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

Poisons Schedule

Not Scheduled

Australia (AICIS)

All components of this product are listed on the Inventory or exempted.

Montreal Protocol

Not listed

Stockholm Convention

Not listed

Rotterdam Convention

Not listed

International Convention for the Prevention of Pollution from Ships (MARPOL)

Not available

Agricultural and Veterinary Chemicals Act 1994

Not available

Basel Convention

Not available

Section 16 - Any Other Relevant Information

Date of Preparation

SDS Reviewed: February 2022

Supersedes: January 2017

SDS Amended: August 2015

SDS Amended: January 2015 (minor)

SDS Created: November 2011

Version Number

5.0

Literature References

Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.

Standard for the Uniform Scheduling of Medicines and Poisons.

Australian Code for the Transport of Dangerous Goods by Road & Rail.

Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.

Code of Practice for Supply Diversion into Illicit Drug Manufacture.

National Code of Practice for Chemicals of Security Concern.

Agricultural Compounds and Veterinary Chemicals Act.

International Agency for Research on Cancer (IARC) Monographs.

Montreal Protocol on Substances that Deplete the Ozone Layer.
Stockholm Convention on Persistent Organic Pollutants (POPs).
Rotterdam Convention on the Prior Informed Consent Procedure for Certain Hazardous Chemicals and Pesticides in International Trade.
Basel Convention on the Control of Transboundary Movements of Hazardous Wastes and Their Disposal.
International Air Transport Association (IATA) Dangerous Goods Regulations.
International Maritime Dangerous Goods (IMDG) Code.
Workplace exposure standards for airborne contaminants.
Adopted biological exposure determinants, American Conference of Industrial Hygienists (ACGIH).
Globally Harmonised System of Classification and Labelling of Chemicals (7th revised edition).
Code of Practice: Managing Noise and Preventing Hearing Loss at Work.

END OF SDS

© Copyright Chemical Safety International Pty Ltd

Copyright in the source code of the HTML, PDF, XML, XFO and any other electronic files rendered by an Infosafe system for Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copyright in the layout, presentation and appearance of each Infosafe SDS displayed is the intellectual property of Chemical Safety International Pty Ltd.

The compilation of SDS's displayed is the intellectual property of Chemical Safety International Pty Ltd.

Copying of any SDS displayed is permitted for personal use only and otherwise is not permitted. In particular the SDS's displayed cannot be copied for the purpose of sale or licence or for inclusion as part of a collection of SDS without the express written consent of Chemical Safety International Pty Ltd.