

1. Identification of Substance & Company

Product

Product name	Mastic Asphalt Paving Grades
Other names	Polymer modified Mastic Asphalt, ShieldFLEX P – Paving ShieldFLEX R – Roofing ShieldSCREED Mastic Asphalt
HSNO approval	NA – non hazardous
Approval description	Non hazardous
UN number	NA
Proper Shipping Name	NA
DG class	NA
Packaging group	NA
Hazchem code	NA
Uses	Hot applied coloured mastic asphalt

Company Details

Company	Allco Waterproofing Solutions	
Address	5 Te Kea Place	PO Box 101-903
	Albany	North Shore City
	Auckland	0745
	New Zealand	New Zealand
Telephone	+64 9 448 1185	
Website	www.allco.co.nz	

2. Hazard Identification

Approval

This product is not considered hazardous under the Hazardous Substances and New Organisms Act (HSNO), according to the criteria in the Hazardous substances (Hazard Classification) Notice 2020.

GHS Classes

None

SYMBOLS

none

Hazard Statements

Other Classifications

As supplied in blocks, the product is not considered hazardous.
Product may be delivered and are used at elevated temperatures above 100°C, and should be handled accordingly. The major hazard is skin burns from contact with the hot product. When used in an enclosed environment adequate ventilation should be provided. Bitumen products may evolve hydrogen sulphide when heated. Hydrogen sulphide is a highly toxic gas which may collect in storage containers and enclosed spaces.

Precautionary Statements

none

3. Composition / Information on Ingredients

Component	CAS/ Identification	Conc (%)
Aggregates: limestone, igneous	Not specified	Not specified
Bitumens	Not specified	Not specified
Asphalt	Not specified	Not specified
Colouring pigment	proprietary	Not specified

This is a commercial product whose exact ratio of components may vary. Trace quantities of impurities are also likely.

4. First Aid

General Information

If medical advice is needed, have product container or label at hand. You should call the National Poisons Centre if you feel that you may have been harmed by this product. The number is 0800 764 766 (0800 POISON) (24 hr emergency service).

Recommended first aid facilities Ready access to running water is recommended.

Exposure

Swallowed	Do NOT induce vomiting. Give a glass of water to drink. Rinse mouth with water. Contact a doctor.
Eye contact	For contact with cold material, e.g. dust particles, wash thoroughly with water and obtain medical attention if signs of discomfort persist. In case of contact with hot material, flood eye with copious quantities of cold water for 10-15 minutes. Do not try to remove material adhering to the eye. Cover the burn area loosely with a sterile dressing, if available. Seek immediate medical attention.
Skin contact	For contact with hot material, cool the affected area under cold running water for at least 10 minutes. Do not attempt to remove anything from the burn area or apply burn creams or ointments. Material adhering to skin will form a sterile barrier which will fall off after a few days. Cover the burn area loosely with a sterile dressing, if available. Seek immediate medical attention.
Inhaled	If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. If patient is unconscious, place in the recovery position (on the side) for transport and contact a doctor. If experiencing respiratory symptoms: Immediately call a POISON CENTER or doctor.

Advice to Doctor

Treat symptomatically

5. Firefighting Measures

Fire and explosion hazards:	There are no specific risks for fire/explosion for this chemical. Material can burn in a fire.
Suitable extinguishing substances:	Foam. Powder. Carbon dioxide (CO ₂). Dry chemical, foam, water fog.
Unsuitable extinguishing substances:	Do not use water jet as an extinguisher, as this will spread the fire.
Products of combustion:	Product may decompose in a fire and produce toxic or corrosive fumes.
Protective equipment:	Self-contained breathing apparatus. Thermal protective clothing, safety boots, non-flammable overalls, gloves, hat and eye protection.
Hazchem code:	NA

6. Accidental Release Measures

Containment	In all cases design storage to prevent discharge to stormwater.
Emergency procedures	A large spill is unlikely due to the nature of the product (rolls of material). In the event of a large spillage (>100kg) alert the fire brigade to location and give brief description of hazard. Prevent by whatever means possible any spillage from entering drains, sewers, or water courses. (If this occurs contact your regional council immediately).
Clean-up method	Collect product and seal in properly labelled containers or drums for disposal. If contamination of crops, sewers or waterways has occurred advise local emergency services.
Disposal	Collect recoverable material into labelled containers for recycling or salvage. Recycle containers wherever possible. This material may be suitable for approved landfill.
Precautions	Dispose of only in accord with all regulations. No special protective clothing is normally necessary.

7. Storage & Handling

Storage	Store in a cool dry place. Avoid storage of harmful substances with food.
Handling	Avoid contact with incompatible substances as listed in Section 10. Do not breathe fumes/dusts, especially if this product is used as high temperatures. See section 8 with regard to personal protective equipment requirements. Avoid skin and eye contact and inhalation of fumes.

Specific end uses Heating and melting asphalt should be carried out to the agreed procedures. The “hot charge” product is delivered at a maximum temperature of 230°C. When handling hot asphalt use personal protective equipment (see Section 8) to avoid contact with skin and eyes. Grinding, cutting, etc. of hardened asphalt may release dusts which contain inhalable silica. Prolonged and/or excessive exposure to respirable dust may cause mucous membrane and respiratory irritation and lung injury with symptoms of shortness of breath and reduced pulmonary function. Inhalation of dust may cause irritation of nose, throat and respiratory passages.

8. Exposure Controls / Personal Protective Equipment

Workplace Exposure Standards

A workplace exposure standard (WES) has not been established by WorkSafe NZ for this product. There is a general limit of 3mg/m³ for respirable particulates and 10mg/m³ for inhalable particulates when limits have not otherwise been established.

NZ Workplace Exposure Stds	Ingredient	WES-TWA	WES-STEL
	Bitumen fumes	No NZ value, Australia: 5mg/m ³	Not established
	Hydrogen sulphide	5ppm, 7mg/m ³	10ppm, 14mg/m ³
	Asphalt fumes	0.5mg/m ³ (skin)	

Engineering Controls

In industrial situations, it is expected that employee exposure to hazardous substances will be controlled to a level as far below the WES as practicable by applying the hierarchy of control required by the Health and Safety at Work Act (2015) and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016. Exposure can be reduced by process modification, use of local exhaust ventilation, capturing substances at the source, or other methods. If you believe air borne concentrations of mists, dusts or vapours are high, you are advised to modify processes or increase ventilation.

Personal Protective Equipment

General Personal Protective Equipment (PPE) should not be used as the primary means of exposure protection, except in the event of an accident or emergency situation or where all other means of protection have proven to inadequate. Clean PPE after use or dispose of as appropriate. Store PPE for re-use in a clean place. Regular training on the correct use of PPE should be provided. In particular the correct fitting and use of respirators and where applicable the cleaning of respirators should be undertaken.

Eyes Protective eyewear is not normally necessary when using this product. However, it always prudent to use protective eyewear if fumes/dusts are likely.

Skin For the cold mix: If discomfort is felt (e.g., if pre-existing conditions exist, such as dermatitis, cuts or sensitive skin), gloves may be helpful. If you suffer from dermatitis type skin conditions, use gloves. Protective gloves or suitably resistant material must comply with AS 2161. Replace frequently. Gloves should be checked for tears or holes before use.
For the hot mix: Wear protective overalls and footwear providing heat protection. Trousers should not be tucked into top of boots. Contaminated clothes should be laundered before re-use.

Respiratory A respirator when airborne concentrations approach the WES (section 8). Respirators must have filters appropriate to the duty and comply with AS/NZS1716 and selected, used and maintained in accordance with AS/NS 1715. If using a respirator, ensure that the cartridges are correct for the potential air contamination and are in good working order. Fit testing and clear guidelines and training for use and maintenance of PPE are necessary.

WES Additional Information

Not applicable

9. Physical & Chemical Properties

Appearance	black solid (as ambient temperature)
Odour	bitumen odour
Odour Threshold	no data
pH	no data
Freezing/melting point	>300°C
Boiling Point	softens above 60°C
Flashpoint	>300°C
Flammability	non flammable
Upper & lower flammable limits	no LEL or UEL
Vapour pressure	negligible at 20°C
Vapour density	no data
Specific gravity/density	2.0-2.4 at 15°C
Solubility	negligible in water
Partition coefficient	no data
Auto-ignition temperature	>300°C
Decomposition temperature	>300°C
Viscosity	not applicable
Particle Characteristics	no data

10. Stability & Reactivity

Stability	This product is unlikely to react or decompose under normal storage conditions. This product will not undergo polymerisation reactions. It is thermally stable.
Conditions to be avoided	Keep away from heat, flames and sparks. Do not add water to molten product as this may cause splattering of hot material.
Incompatible groups	Strong oxidising agents
Substance Specific Incompatibility	None known
Hazardous decomposition products	None under normal conditions of use. If overheated may decompose and release hydrogen sulphide and flammable and irritating hydrocarbon fumes.
Hazardous reactions	none known

11. Toxicological Information

Summary

IF SWALLOWED: low ingestion hazard. Unlikely route of entry, however if swallowing can result in nausea, vomiting and irritation of the gastrointestinal tract.

IF IN EYES: dusts may cause physical irritation to eyes. Hot mixture may burn eyes.

IF ON SKIN: dusts may cause skin irritation (physical). Hot mixture may burn skin.

IF INHALED: dusts may cause irritation to mucous membranes. Fumes may be irritating.

Supporting Data

Acute	Oral	Using LD ₅₀ 's for ingredients, the calculated LD ₅₀ (oral, rat) for the mixture is >2000 mg/kg.
	Aspiration	This mixture is not an aspiration hazard.
	Dermal	No evidence of dermal toxicity.
	Inhaled	No evidence of acute inhalation toxicity.
	Eye	The mixture is not considered to be an eye irritant.
Chronic	Skin	The mixture is not considered to be a skin irritant.
	Sensitisation	No ingredient present at concentrations > 0.1% is considered a sensitizer.
	Mutagenicity	No ingredient present at concentrations > 0.1% is considered a mutagen.
	Carcinogenicity	Bitumen may contain substances including polyaromatic hydrocarbons (PAHs), some types of which have been associated with cancer. However, long-term studies of bitumen and asphalt workers have not demonstrated any increased cancer risk from the use of these products, and bitumen has been classified by IARC as Group 3, Not classifiable as to its carcinogenicity to humans.
	Reproductive / Developmental Systemic	No ingredient present at concentrations > 0.1% is considered a reproductive or developmental toxicant or have any effects on or via lactation. Paving grades of asphalt contain aggregates including silica, which is classified for repeated exposure toxicity because of the possibility of lung damage (silicosis) from long term inhalation. This silica is not normally inhalable/respirable when the asphalt is being applied.
	Aggravation of existing conditions	None known.

12. Ecological Data

Summary

This mixture is not considered ecotoxic, however in all cases prevent this mixture from entering drains, sewers and waterways. Product will harden once cooled and sink if it enters a waterway.

Supporting Data

Aquatic	Using EC ₅₀ 's for ingredients, the calculated EC ₅₀ for the mixture is > 100 mg/L
Bioaccumulation	Nt considered bioaccumulative.
Degradability	Not readily biodegradable
Soil	Not considered ecotoxic in the soil environment. Low solubility in water.
Terrestrial vertebrate	Not harmful towards terrestrial vertebrates
Terrestrial invertebrate	No evidence to toxicity towards terrestrial invertebrates
Biocidal	Not biocidal
Environmental effect levels	No EELs are available for this mixture or ingredients

13. Disposal Considerations

Restrictions	There are no product-specific restrictions, however, local council and resource consent conditions may apply, including requirements of trade waste consents.
Disposal method	Disposal of this product must comply with the Hazardous Substances (Disposal) Notice 2017 and the requirements of the Resource Management Act for which approval should be sought from the Regional Authority.
Contaminated packaging	Disposal of contaminated packaging must comply with the Hazardous Substances (Disposal) Notice 2017 clause 12. Ensure that the package is rendered incapable of containing any substance and is disposed in a manner that is consistent with the requirements of the substance it contained and the material of the package. If possible reuse or recycle packaging.

14. Transport Information

Land Transport Rule: Dangerous Goods 2005 - NZS 5433:2007

There are no specific restrictions for this product (not a dangerous good).

UN number:	NA	Proper shipping name:	NA
Class(es)	NA	Packing group:	NA
Precautions:	NA	Hazchem code:	NA

IMDG

UN number:	NA	Proper shipping name:	Not regulated
Class(es)	NA	Packing group:	NA
Precautions:	NA	EmS	NA

IATA

UN number:	NA	Proper shipping name:	Not regulated
Class(es)	NA	Packing group:	NA
Precautions:	NA	ERG Guide	NA

15. Regulatory Information

This substance is not considered to be hazardous under HSNO. All ingredients appear on the NZIoC.

Specific Controls

Key workplace requirements are:

SDS	Not required (non hazardous), but best practice to have the SDS available.
Inventory	An inventory of all hazardous substances must be prepared and maintained.
Packaging	All hazardous substances should be appropriately packaged including substances that have been decanted, transferred or manufactured for own use or have been supplied
Labelling	Must comply with the Hazardous Substances (Labelling) Notice 2017.
Emergency plan	Not required.
Certified handler	Not required.
Tracking	Not required.
Bunding & secondary containment	Not required.
Signage	Not required.
Location compliance certificate	Not required.
Flammable zone	Not required.
Fire extinguisher	Not required.

Note: The above workplace requirements apply if only this particular substance is present. The complete set of controls for a location will depend on the classification and total quantities of other substances present in that location.

Other Legislation

In New Zealand, the use of this product may come under the Resource Management Act and Regulations, the Health and Safety at Work Act 2015 and the Health and Safety at Work (General Risk and Workplace Management) Regulations 2016, local Council Rules and Regional Council Plans.

16. Other Information

Abbreviations

Approval Code	NA – non hazardous.
EC₅₀	Ecotoxic Concentration 50% – concentration in water which is fatal to 50% of a test population (e.g. daphnia, fish species)
EPA	Environmental Protection Authority (New Zealand)
GHS	Globally Harmonised System of Classification and Labelling of Chemicals, 7 th revised edition, 2017, published by the United Nations.
HAZCHEM Code	Emergency action code of numbers and letters that provide information to emergency services, especially fire fighters
HSNO	Hazardous Substances and New Organisms (Act and Regulations)
IARC	International Agency for Research on Cancer
LEL	Lower Explosive Limit
LD₅₀	Lethal Dose 50% – dose which is fatal to 50% of a test population (usually rats).
LC₅₀	Lethal Concentration 50% – concentration in air which is fatal to 50% of a test population (usually rats)
NZIoC	New Zealand Inventory of Chemicals
STEL	Short Term Exposure Limit - The maximum airborne concentration of a chemical or biological agent to which a worker may be exposed in any 15 minute period, provided the TWA is not exceeded
STOT RE	System Target Organ Toxicity – Repeated Exposure
STOT SE	System Target Organ Toxicity – Single Exposure
TWA	Time Weighted Average – generally referred to as WES averaged over typical work day (usually 8 hours)
UEL	Upper Explosive Limit
UN Number	United Nations Number
WES	Workplace Exposure Standard - The airborne concentration of a biological or chemical agent to which a worker may be exposed during work hours (usually 8 hours, 5 days a week). The WES relates to exposure that has been measured by personal monitoring using procedures that gather air samples in the worker's breathing zone.

References

Data	Unless otherwise stated comes from the EPA HSNO chemical classification information database (CCID).
EPA Notices	www.epa.govt.nz
WES	The latest NZ Workplace Exposure Standards, published by WorkSafe NZ and available on their web site – www.worksafe.govt.nz .
Other References:	Suppliers SDS

Review

Date	Reason for review
April 2024	Not applicable – new SDS

Disclaimer

This SDS was prepared by Datachem LTD and is based on our current state of knowledge, including information obtained from suppliers. The SDS is given in good faith and constitutes a guideline (not a guarantee of safety). The level of risk each substance poses is relevant to its properties (as summarised in the SDS) AND HOW THE SUBSTANCE IS USED. While guidelines are given for personal protective equipment, such precautions must be relevant to the use. The likely GHS classifications for this SDS have been estimated based on general information from the supplier (e.g., hazard, toxicological). This SDS is copyright Datachem and must not be copied, edited or used for other than intended purpose. To contact the SDS author, email info@datachem.co.nz or phone: +64 21 1040951

