

BORAL ASPHALT

Safety Data Sheet



www.boral.com.au

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product identifier

Product name ASPHALT
Synonym(s) AC • ASPHALTIC CONCRETE • BITUMINOUS CONCRETE • BTB • DGA • DURAPAVE • EME • HOT MIXED ASPHALT • NOVACHIP • OGA • PORTMIX • SMA • WARM MIX ASPHALT • WARMPAVE

1.2 Uses and uses advised against

Use(s) ROAD MAKING
Road, industrial and airport pavements and surfacings.

1.3 Details of the supplier of the safety data sheet

Supplier name BORAL ASPHALT
Address Level 3, 40 Mount Street, Nth Sydney, NSW, 2060, AUSTRALIA
Telephone (02) 9220 6300
Email sds@rmt.com.au
Website www.boral.com.au

1.4 Emergency telephone number(s)

Emergency 1800 555 477 (8am – 5pm WST)
Emergency (A/H) 13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

NOT CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA
NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

2.1 Classification of the substance or mixture

GHS classifications Skin Corrosion/Irritation: Category 3

2.2 Label elements

Signal word WARNING
Pictograms None allocated.
Hazard Statement(s)
H316 Causes mild skin irritation.
Prevention Statement(s)
P262 Do not get in eyes, on skin, or on clothing.
Response Statement(s)
P332 + P313 If skin irritation occurs: Get medical advice/ attention.
Storage Statement(s)
P403 Store in a well-ventilated place.
Disposal Statement(s)
P501 Dispose of contents/container in accordance with relevant regulations.

2.3 Other hazards

This material is applied at elevated temperatures (typically 110°C to 175°C) with a special purpose paving machine or by hand spreading. Contact with hot material can result in burns. The cured, inert semi solid material is considered non hazardous. Please see package labelling or manufacturer's literature for more detail on usage, handling, storage and disposal under

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different applications.

3. COMPOSITION/ INFORMATION ON INGREDIENTS

3.1 Substances / Mixtures

Ingredient	Identification	Classification	Content
MINERAL AGGREGATE(S)	Not Available		88 to 96%
BITUMEN	CAS: 8052-42-4 EC: 232-490-9		3 to 8%
POLYMERS(S)	Not Available		<8%
HYDRATED LIME	Not Available		<5%
ADDITIVE(S)	Not Available		<0.1%

4. FIRST AID MEASURES

4.1 Description of first aid measures

Eye	If in eyes, hold eyelids apart and flush continuously with running water. Continue flushing until advised to stop by a Poisons Information Centre, a doctor, or for at least 15 minutes.
Inhalation	If inhaled, remove from contaminated area. To protect rescuer, use a Type A (Organic vapour) respirator or an Air-line respirator (in poorly ventilated areas). Apply artificial respiration if not breathing.
Skin	If skin or hair contact occurs, remove contaminated clothing and flush skin and hair with running water. Continue flushing with water until advised to stop by a Poisons Information Centre or a doctor.
Ingestion	For advice, contact a Poison Information Centre on 13 11 26 (Australia Wide) or a doctor (at once). If swallowed, do not induce vomiting.
First aid facilities	Eye wash facilities and safety shower are recommended.

4.2 Most important symptoms and effects, both acute and delayed

Contact with hot product may cause burns. Bitumens, occupational exposure to straight-run bitumens and their emissions during road paving, are classified as possibly carcinogenic to humans (IARC Group 2B). Once cured, the inert solid material is considered non hazardous.

4.3 Immediate medical attention and special treatment needed

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

Refer to the Australian Asphalt Pavement Association (AAPA) bitumen burns card for further information (<http://www.aapa.asn.au>).

Bitumen burns: If hot bitumen contacts the skin, flush immediately with water and make no attempt to remove it. Use wet, cold towels if face, neck, shoulder or back etc are burnt. Cool burn areas for 30 minutes and seek immediate medical attention. Where bitumen completely circles a limb, it may have a tourniquet effect and should be split longitudinally as it cools. If eye burns result flush with water for 15 minutes, pad and seek immediate medical attention.

5. FIREFIGHTING MEASURES

5.1 Extinguishing media

In case of fire, use water fog, foam, dry chemical or carbon dioxide extinguisher or spray.

5.2 Special hazards arising from the substance or mixture

Combustible. May evolve toxic gases (carbon/ sulphur/ nitrogen oxides, hydrogen sulphide, hydrocarbons) when heated to decomposition.

5.3 Advice for firefighters

Evacuate area and contact emergency services. Toxic gases may be evolved in a fire situation. Remain upwind and notify those downwind of hazard. Wear full protective equipment including Self Contained Breathing Apparatus (SCBA) when combating fire. Use waterfog to cool intact containers and nearby storage areas.

5.4 Hazchem code

None allocated.

6. ACCIDENTAL RELEASE MEASURES

6.1 Personal precautions, protective equipment and emergency procedures

Wear Personal Protective Equipment (PPE) as detailed in Section 8 of this SDS. Clear area of all unprotected personnel. Ventilate area where possible. Contact emergency services where appropriate.

6.2 Environmental precautions

Contain material and prevent product from entering drains and waterways. Collect and seal in properly labelled containers for disposal. If contamination of sewers or waterways has occurred, contact local emergency services.

6.3 Methods of cleaning up

Contain spillage, then collect and place in suitable containers for disposal. Eliminate all ignition sources.

6.4 Reference to other sections

See Sections 8 and 13 for exposure controls and disposal.

7. HANDLING AND STORAGE

7.1 Precautions for safe handling

Before use carefully read the product label. Use of safe work practices are recommended to avoid eye or skin contact and inhalation. Observe good personal hygiene, including washing hands before eating. Prohibit eating, drinking and smoking in contaminated areas. Fuming occurs at application temperatures but can be reduced if handled at temperatures below 150°C.

7.2 Conditions for safe storage, including any incompatibilities

Store in a well-ventilated area removed from ignition sources, oxidising agents and foodstuffs. Keep storage vessels closed when not in use. Take precautionary measures against static electricity discharges.

7.3 Specific end use(s)

Not applicable.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

8.1 Control parameters

Exposure standards

Ingredient	Reference	TWA		STEL	
		ppm	mg/m3	ppm	mg/mg3
Bitumen fume	SWA (AUS)	--	5	--	--

Biological limits

No biological limit values have been entered for this product.

8.2 Exposure controls

Engineering Controls Avoid inhalation. Use in well ventilated areas. Where an inhalation risk exists, mechanical extraction ventilation is recommended. Maintain vapour levels below the recommended exposure standard.

PPE

Personal protective equipment (PPE) should meet recommended national standards. Check with PPE suppliers.

- Eye / Face** Wear a face-shield or splash-proof goggles when handling hot material. Wear safety glasses when handling cold material.
- Hand** Wear heat resistant leather or insulated gloves when handling hot material. Wear chemical resistant gloves (ie. Nitrile) when handling cold material.
- Body** Avoid contact with skin and clothing. Wear impervious coveralls and heat resistant boots when handling hot material. When the risk of skin exposure is high, an impervious chemical suit may be required.
- Respiratory** Where an inhalation risk exists in enclosed or partly enclosed environments (ie. underground car parks, large tanks, tunnels etc), wear a Type A-Class P1 (Organic gases/vapours and Particulate) respirator, dependent on a site specific risk assessment.



9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 Information on basic physical and chemical properties

Appearance	BLACK HOT LOOSE COATED SOLID PARTICLES (IN USE); BLACK SOLID THERMOPLASTIC MATERIAL (WHEN CURED)
Odour	BITUMEN-LIKE ODOUR
Flammability	COMBUSTIBLE
Flash point	> 250°C
Boiling point	NOT RELEVANT
Melting point	NOT AVAILABLE
Evaporation rate	NOT AVAILABLE
pH	NOT AVAILABLE
Vapour density	NOT AVAILABLE
Specific gravity	NOT AVAILABLE
Solubility (water)	INSOLUBLE
Vapour pressure	NOT AVAILABLE
Upper explosion limit	NOT RELEVANT
Lower explosion limit	NOT RELEVANT
Partition coefficient	NOT AVAILABLE
Autoignition temperature	NOT AVAILABLE
Decomposition temperature	> 300°C
Viscosity	NOT AVAILABLE
Explosive properties	NOT EXPLOSIVE
Oxidising properties	NON OXIDISING
Odour threshold	NOT AVAILABLE

9.2 Other information

Expected temp. when cured	Between ambient and 20°C above ambient
Avg weight when cured	2.5 T/m ³
Max temp. in use	175°C

10. STABILITY AND REACTIVITY

10.1 Reactivity

Carefully review all information provided in sections 10.2 to 10.6.

10.2 Chemical stability

Stable under recommended conditions of storage.

10.3 Possibility of hazardous reactions

Polymerization will not occur.

10.4 Conditions to avoid

Avoid heat, sparks, open flames and other ignition sources.

10.5 Incompatible materials

Incompatible with oxidising agents (eg. hypochlorites) and acids (eg. nitric acid). Do not allow hot material to contact liquids or water.

10.6 Hazardous decomposition products

May evolve toxic gases (carbon/ sulphur/ nitrogen oxides, hydrogen sulphide, hydrocarbons) when heated to decomposition.

11. TOXICOLOGICAL INFORMATION

11.1 Information on toxicological effects

Acute toxicity No known toxicity data is available for this product. Based on available data, the classification criteria are

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	not met. Inhalation may cause headache, nausea and respiratory tract irritation. Once cured, the inert solid material is considered non hazardous.
Skin	Contact with hot material can result in skin burns. Exposure to asphalt fumes may cause dermatitis and photosensitisation. Once cured, the inert semi solid material is considered non hazardous.
Eye	Contact with hot material can result in eye burns. Exposure to asphalt fumes may cause irritation, redness or pain. Once cured, the inert semi solid material is unlikely to penetrate the eye and considered non hazardous.
Sensitization	This product is not known to be a skin or respiratory sensitiser.
Mutagenicity	Insufficient data available to classify as a mutagen.
Carcinogenicity	Bitumens, occupational exposure to straight-run bitumens and their emissions during road paving, and to hard bitumens and their emissions during mastic asphalt work, are classified as possibly carcinogenic to humans (IARC Group 2B).
Reproductive	Insufficient data available to classify as a reproductive toxin.
STOT – single exposure	Not classified as causing organ effects from single exposure. However, inhalation of bitumen fumes may cause headache, nausea and respiratory tract irritation. This material may release trace quantities of hydrogen sulphide within storage facilities.
STOT – repeated exposure	Not classified as causing organ effects from repeated exposure.
Aspiration	This product is not expected to present an aspiration hazard.

12. ECOLOGICAL INFORMATION

12.1 Toxicity

There is currently insufficient data to classify the ecotoxicity of this product. The bulk of the bitumen dispersed in asphalt is fairly inert when set, and should not present an environmental hazard under normal conditions

12.2 Persistence and degradability

Can be expected to biodegrade slowly.

12.3 Bioaccumulative potential

This product is not expected to bioaccumulate through food chains in the environment.

12.4 Mobility in soil

Emulsifies in water. Spillages are unlikely to penetrate the soil.

12.6 Other adverse effects

Prevent contamination of drains or waterways.

13. DISPOSAL CONSIDERATIONS

13.1 Waste treatment methods

Waste disposal	For small amounts dispose of to an approved landfill site. Contact the manufacturer for additional information if larger amounts are involved. Prevent contamination of drains and waterways as aquatic life may be threatened and environmental damage may result.
Legislation	Dispose of in accordance with relevant local legislation.

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14. TRANSPORT INFORMATION

NOT CLASSIFIED AS A DANGEROUS GOOD BY THE CRITERIA OF THE ADG CODE, IMDG OR IATA

	LAND TRANSPORT (ADG)	SEA TRANSPORT (IMDG / IMO)	AIR TRANSPORT (IATA / ICAO)
<u>14.1 UN number</u>	None Allocated	None Allocated	None Allocated
<u>14.2 UN proper shipping name</u>	None Allocated	None Allocated	None Allocated
<u>14.3 Transport hazard classes</u>			
DG class / division	None Allocated	None Allocated	None Allocated
Subsidiary risk(s)	None Allocated	None Allocated	None Allocated
<u>14.4 Packing group</u>	None Allocated	None Allocated	None Allocated
<u>14.5 Environmental hazards</u>	None Allocated		
<u>14.6 Special precautions for user</u>			
Hazchem code	None Allocated		

15. REGULATORY INFORMATION

15.1 Safety, health and environmental regulations/legislation specific for the substance or mixture

Poison schedule	A poison schedule number has not been allocated to this product using the criteria in the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).
Classifications	None allocated.
Risk phrases	None allocated.
Safety phrases	None allocated.
Inventory listing(s)	AUSTRALIA: AICS (Australian Inventory of Chemical Substances) All components are listed on AICS, or exempt.

16. OTHER INFORMATION

Abbreviations	ACGIH - American Conference of Industrial Hygienists. ADG - Australian Dangerous Goods. BEI - Biological Exposure Indices. CAS# - Chemical Abstract Service number - used to uniquely identify chemical compounds. CNS - Central Nervous System. EC No - European Community Number. IARC - International Agency for Research on Cancer. mg/m ³ - Milligrams per Cubic Metre. NOS - Not Otherwise Specified. pH - relates to hydrogen ion concentration using a scale of 0 (high acidic) to 14 (highly alkaline). ppm - Parts Per Million. RTECS - Registry of Toxic Effects of Chemical Substances. STEL - Short Term Exposure Limit. STOT-RE - Specific target organ toxicity (repeated exposure) STOT-SE - Specific target organ toxicity (single exposure) SWA - Safe Work Australia. TWA - Time Weighted Average.
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Report status This document has been compiled by RMT on behalf of the manufacturer, importer or supplier of the product and serves as their Safety Data Sheet ('SDS').

The information presented herein is based on data considered to be accurate as of the date of preparation of this SDS. However, no warranty or representation, express or implied, is made as to the accuracy or completeness of the foregoing data and safety information, nor is any authorisation given or implied to practice any patented invention without a licence. In addition, no responsibility can be assumed by the vendor for any damage or injury resulting from abnormal use, without a risk assessment for safe use, from any failure to adhere to recommended practices or from any hazards inherent in the nature of the products.

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This Safety Data Sheet (SDS) applies only to the formulated material as supplied by Boral Asphalt. It does not apply where the formulation has been altered. In this case a new SDS may be required to reflect the modified material. Contact Boral Asphalt for further information.

Printed documents are uncontrolled. Refer to www.boral.com.au regularly for a more recent copy of the SDS where it exists.

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End of Report