



1. Identification of the material and supplier

Product name	OLEXOBIT HSS
SDS no.	0000003014
Product use	Bitumen product for road building, industrial and civil engineering materials and processes. For specific application advice see appropriate Technical Data Sheet or consult our company representative.
Supplier	BP Australia Pty Ltd (ABN 53 004 085 616) Melbourne Central, 360 Elizabeth Street, Melbourne, Victoria 3000, Australia Tel: +61 (03) 9268 4111 Fax: +61 (03) 9268 3321
EMERGENCY TELEPHONE NUMBER	1800 638 556
OTHER PRODUCT INFORMATION	BP Bitumen Technical Helpline: 1 800 24 88 66
Product code	0000003014

2. Hazards identification

Statement of hazardous/dangerous nature NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.

3. Composition/information on ingredients

This product can be delivered, stored and used at temperatures above 100°C.

Ingredient name	CAS no.	%
Bitumen	8052-42-4	> 90
or Asphalt, oxidised	64742-93-4	> 90

May also contain small quantities of proprietary performance additives.

4. First-aid measures

Eye contact	Cold product - Wash eye thoroughly with copious quantities of water, ensuring eyelids are held open. Obtain medical advice if any pain or redness develops or persists. Hot product - Flood with water to dissipate heat. In the event of any product remaining, do not try to remove it other than by continued irrigation with water. Obtain medical attention immediately.
Skin contact	Cold Product - Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable. Hot Product - Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain medical advice immediately.
Inhalation	If inhaled, remove to fresh air. Get medical attention if symptoms appear. EXPOSURE TO HYDROGEN SULPHIDE: Casualties suffering ill effects as a result of exposure to hydrogen sulphide should be immediately removed to fresh air and medical assistance obtained without delay.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If potentially dangerous quantities of this material have been swallowed, call a physician immediately.

Advice to doctor

Treatment should in general be symptomatic and directed to relieving any effects.

Where skin burns occur the area should be immediately immersed in cold water until the bitumen is thoroughly cooled. Do not attempt to remove the bitumen from the skin as it provides an airtight sterile covering over the burn which will eventually fall away with the scab as the burn heals. If for any reason the bitumen must be removed, this can be done using a slightly warmed medicinal liquid paraffin.

Kerosine and other solvents should never be used. All burns should receive medical attention. It should be noted that bitumen contracts on cooling and where a limb is encased care should be taken to avoid the development of a tourniquet effect.

Inhalation of hydrogen sulphide may cause central respiratory depression leading to coma and death. It is irritant to the respiratory tract causing chemical pneumonitis and pulmonary oedema. The onset of pulmonary oedema may be delayed for 24 to 48 hours. Treat with oxygen and ventilate as appropriate. Administer broncho-dilators if indicated and consider administration of corticosteroids. Keep casualty under surveillance for 48 hours in case pulmonary oedema develops.

5. Fire-fighting measures

Extinguishing media

Suitable

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

Not suitable

Do not use water jet.

Avoid spraying directly into storage containers because of the danger of boil-over. Boil-over is the rapid increase in volume caused by the presence of water in hot product and the subsequent overflow from a tank.

Hazardous decomposition products

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide

sulfur oxides

Hydrogen Sulphide (H₂S)

Unusual fire/explosion hazards

Avoid spraying directly into storage containers because of the danger of boil-over. Boil-over is the rapid increase in volume caused by the presence of water in hot product and the subsequent overflow from a tank.

Special fire-fighting procedures

None identified.

Protection of fire-fighters

Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.

Hazchem code

2W

6. Accidental release measures

Personal precautions

Immediately contact emergency personnel. Evacuate surrounding areas. Keep unnecessary personnel away. Avoid breathing gas, fumes or vapour. Ensure good ventilation. Follow all fire-fighting procedures (section 5). Do not touch or walk through spilt material. Use suitable protective equipment (section 8). When handling hot material, wear heat resistant protective gloves, clothing and face shield that are able to withstand the temperature of the heated product.

This material can contain hydrogen sulphide (H₂S), a very toxic and extremely flammable gas.

Environmental precautions

Depending upon its temperature the product may be liquid, semi-solid or solid.

Protect drains from spills and prevent entry of product, since this may result in blockage on cooling.

Should blockage occur, notify the appropriate authority immediately.

Scrape up bulk of solid material and remove liquid with sand or other suitable inert absorbent material. If necessary, clean the contaminated area using hot water and detergent: absorb the washings - do not wash into drains.

For small spills, add absorbent (soil may be used in the absence of other suitable materials), scoop up material and place in a sealable, liquid-proof container. Place spilt material in an appropriate container for disposal.

Entry into a confined space or poorly ventilated area contaminated with vapour, mist or fume is extremely hazardous without the correct respiratory protective equipment and a safe system of work. Wear self-contained positive pressure breathing apparatus (SCBA).

Large spill

Stop leak if without risk. Eliminate all ignition sources. Move containers from spill area. Approach the release from upwind. Wear a full face visor and helmet. Full suit. Boots. Gloves. Prevent entry into sewers, water courses, basements or confined areas. Depending upon its temperature the product may be liquid, semi-solid or solid.

Protect drains from spills and prevent entry of product, since this may result in blockage on cooling.

Should blockage occur, notify the appropriate authority immediately.

Scrape up bulk of solid material and remove liquid with sand or other suitable inert absorbent material. If necessary, clean the contaminated area using hot water and detergent: absorb the washings - do not wash into drains. Dispose of via a licensed waste disposal contractor. See section 13 for waste disposal information.

7. Handling and storage

Handling Contact with hot product may cause burns. Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Avoid contact with skin and clothing. Wash thoroughly after handling.

When bitumen is heated to high temperatures, vapour, mists or fumes will be given off and may condense, contaminating the skin or clothing of operatives. Prolonged or repeated contact with this condensate may give rise to dermatitis or other skin conditions of a serious or irreversible nature. Regular periodic self inspection of the skin is recommended, especially those areas subject to contamination. In the event of any localised changes in appearance or texture of the skin being noticed, medical advice should be sought without delay.

Storage Store away from ignition sources. Protect from moisture. Avoid extended exposure to high temperatures. Australian Industry standards recommend a maximum temperature for storage of 200°C. Under no circumstances should water be allowed to contact hot product 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. For bulk product, the storage temperature 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 product through 100°C.

This product can be delivered, stored and used at temperatures above 100°C. For quality, technical, and health, safety and environmental reasons, bitumen should not be overheated during handling and storage. Our company representative will provide advice on storage and application temperatures, which are grade specific. Operating temperatures should be kept as low as possible to minimise fume generation. We recommend however that, as a general rule, bitumen temperature should be kept in the range 130°C to 200°C and never exceed the industry recommended maximum safe working temperature of 230°C. At temperatures above 230°C, significant decomposition can occur, with an increased risk of generating flammable/hazardous atmospheres. If exposure to bitumen fume generated at temperatures above 200°C cannot be precluded, skin and inhalation exposure should be avoided by ensuring adequate workplace ventilation and if necessary the use of appropriate personal protective equipment.

This material can contain hydrogen sulphide (H₂S), an extremely toxic and flammable gas. Vapors containing hydrogen sulfide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulfide has a typical "bad egg" smell but at high concentrations the sense of smell is rapidly lost, therefore do not rely on sense of smell for detecting hydrogen sulfide. Use specially designed measuring instruments for determining its concentration.

Combustibility Classification Combustible liquid Class C2 (AS 1940).

Additional information- Storage This product must be handled in compliance with Australian Standard and local regulations: The storage and handling of flammable and combustible liquids [Standard 1940-2004 as amended and adapted].

8. Exposure controls/personal protection

Ingredient name

Bitumen

Hydrogen Sulphide

Occupational exposure limits

ASCC (Australia).

TWA: 5 mg/m³ 8 hour(s). Issued/Revised: 5/1995 Form: Fume

ASCC (Australia).

STEL: 21 mg/m³ 15 minute(s). Issued/Revised: 5/1995

STEL: 15 ppm 15 minute(s). Issued/Revised: 5/1995

TWA: 14 mg/m³ 8 hour(s). Issued/Revised: 5/1995

TWA: 10 ppm 8 hour(s). Issued/Revised: 5/1995

For information and guidance, the ACGIH values are included. For further information on these please consult your supplier.

Whilst specific OELs for certain components are included in this SDS, it should be noted that other components of the preparation will be present in any mist, vapour or dust produced. For this reason, the specific OELs may not be applicable to the product and are provided for guidance purposes.

Biological Limit Values

No biological limit allocated.

Exposure controls

Occupational exposure controls

If user operations generate dust, fumes, gas, vapour or mist, use process enclosures, local exhaust ventilation or other engineering controls to keep worker exposure to airborne contaminants below any recommended or statutory limits.

All chemicals should be assessed for their risks to health and appropriate control measures put in place to prevent or adequately control exposure. A hierarchy of control measures exists (e.g. elimination, substitution, general ventilation, containment, systems of work, changing the process or activity) that must be considered before use of personal protective equipment. Personal protective equipment should conform to appropriate standards, be suitable for use, be kept in good condition and properly maintained. Your supplier of personal protective equipment should be consulted for advice on selection and

appropriate standards. For further information contact your national organisation for standards. The final choice of protective equipment will depend upon a risk assessment. It is important to ensure that all items of personal protective equipment are compatible. The above information is provided to assist the customer in conducting its own assessment of risk to the health and safety of workers for the substance or preparation, and protection of the environment.

Hygiene measures

Wash hands, forearms and face thoroughly after handling chemical products, before eating, smoking and using the lavatory and at the end of the working period.

Personal protective equipment

Respiratory protection

Use only with adequate ventilation. Do not breathe vapour or mist. In case of insufficient ventilation, wear suitable respiratory equipment.

Avoid breathing of vapours, mists or spray. Select and use respirators in accordance with AS/NZS 1715/1716. When mists or vapours exceed the exposure standards then the use of the following is recommended: Approved respirator with organic vapour and dust/mist filters. Filter capacity and respirator type depends on exposure level.

Approved air-supplied breathing apparatus must be worn where there is a risk of inhaling hydrogen sulphide gas. Personal gas monitors may also provide early warning of hydrogen sulphide.

Air-filtering respirators, also called air-purifying respirators, will not be adequate under conditions of oxygen deficiency (i.e. low oxygen concentration), and would not be considered suitable where airborne concentrations of chemicals with a significant hazard are present. In these cases air-supplied breathing apparatus will be required.

Skin and body

Avoid contact with skin and clothing. Wear suitable protective clothing. Wear impervious overalls covering full body and limbs, with legs worn over protective boots.

Cotton or polyester/cotton overalls will only provide protection against light superficial contamination that will not soak through to the skin. Overalls should be laundered on a regular basis. When the risk of skin exposure is high (e.g. when cleaning up spillages or if there is a risk of splashing) then chemical resistant aprons and/or impervious chemical suits and boots will be required.

Thermal resistant clothing will be required when handling hot products.

Hand protection

Cold material: Wear chemical resistant gloves. Recommended: nitrile gloves.

Hot material: to prevent thermal burns wear heat resistant and impervious gauntlets/gloves.

Eye protection

Cold material: wear safety glasses with side shields.

Hot material: to prevent thermal burns wear a helmet, full face visor and heat resistant neck flap / apron.

9 . Physical and chemical properties

Physical state	Solid.
Colour	Black.
Odour	Hydrocarbon. [Strong]
Flash point	>250 °C (Open cup)
Explosive properties	This material is not explosive as defined by established regulatory criteria.
Vapour pressure	<0.1 kPa (<0.75 mm Hg) at 20°C
Vapour density	Not available.
Viscosity	Dynamic: 0.2 Pa·s (200 cP) at 165°C
pH	Not available.
Boiling point / range	Not available.
Melting point / range	49 C (Softening point (°C))
Relative density/Specific gravity	Not available.
Density	1030 kg/m ³ (1.03 g/cm ³) at 15°C
Solubility	Insoluble

10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid extreme temperatures, strong oxidizers, fire.
Incompatibility with various substances/Hazardous Reactions	Reactive or incompatible with the following materials: oxidizing materials.

Hazardous decomposition products

Decomposition products may include the following materials:
carbon dioxide
carbon monoxide
sulfur oxides
Hydrogen Sulphide (H2S)

11 . Toxicological information

Eyes	Will cause burns if hot material contacts eyes.
Skin	Will cause burns if hot material contacts skin. When product is heated to high temperatures, vapour, mists or fumes will be given off and may condense, contaminating the skin or clothing of operatives. Prolonged or repeated contact with this condensate may give rise to dermatitis or other skin conditions of a serious or irreversible nature.
Inhalation	At normal ambient temperatures this product will be unlikely to present an inhalation hazard because of its low volatility. Vapour, mists or fumes may contain polycyclic aromatic hydrocarbons some of which are known to produce skin cancer. The inhalation of vapour, mists or fumes over long periods may therefore be hazardous.
Ingestion	Unlikely to be swallowed in view of the high handling temperatures. Ingestion of hot product is unlikely but will cause severe burns.
Acute toxicity	Contact with hot product may cause burns. May cause irritation to eyes, nose and throat due to exposure to vapour, mists or fumes.
Chronic toxicity	
Carcinogenic effects	No component of this product at levels greater than or equal to 0.1% is identified as a carcinogen by ACGIH, the International Agency for Research on Cancer (IARC), the European Commission (EC), or the National Occupational Health and Safety Commission (Australia).
Mutagenic effects	No known significant effects or critical hazards.
Other information	When bitumen is heated to high temperatures, vapour, mists or fumes will be given off and may condense, contaminating the skin or clothing of operatives. Prolonged or repeated contact with this condensate may give rise to dermatitis or other skin conditions of a serious or irreversible nature.

12 . Ecological information


Ecotoxicity	Not classified as environmentally hazardous in accordance with the 'Approved Criteria for Classifying Hazardous Substances' [NOHSC (1008)/2004 as amended and adapted].
Biodegradability	
Persistence/degradability	Not readily biodegradable.
Mobility	Spillages are unlikely to penetrate the soil.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Other ecological information	If released to water the product will sink.

13 . Disposal considerations

Disposal considerations / Waste information	The generation of waste should be avoided or minimised wherever possible. Empty containers or liners may retain some product residues. This material and its container must be disposed of in a safe way. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Disposal of this product, solutions and any by-products should at all times comply with the requirements of environmental protection and waste disposal legislation and any regional local authority requirements. Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers.
Special Precautions for Landfill or Incineration	No additional special precautions identified.

14 . Transport information

International transport regulations

Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
ADG Classification	UN3257	Elevated temperature liquid, n.o.s. (Bitumen)	9	III		Hazchem code 2W Initial emergency response guide 15 Remarks Hot material: When this material is shipped at temperatures < 100C this material is

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Regulatory information	UN number	Proper shipping name	Class	PG*	Label	Additional information
						not regulated for transport.
IMDG Classification	UN3257	Elevated temperature liquid, n.o.s. (Bitumen)	9	III		Remarks Hot material: When this material is shipped at temperatures < 100C this material is not regulated for transport.
IATA/ICAO Classification	UN3257	Elevated temperature liquid, n.o.s. (Bitumen)	9	III		Remarks Hot material: Forbidden for transport on passenger and cargo aircraft in molten state. When this material is shipped at temperatures < 100C this material is not regulated for transport.

PG* : Packing group

Special precautions for user No known special precautions required. See Section: "Handling and storage" for additional information.

15 . Regulatory information

[Standard for the Uniform Scheduling of Drugs and Poisons](#)

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[Control of Scheduled Carcinogenic Substances](#)

[Ingredient name](#)

No Listed Substance

[Schedule](#)

Other regulations

Europe inventory	Not determined.
United States inventory (TSCA 8b)	All components are listed or exempted.
Australia inventory (AICS)	All components are listed or exempted.
Canada inventory	All components are listed or exempted.
China inventory (IECSC)	All components are listed or exempted.
Japan inventory (ENCS)	All components are listed or exempted.
Korea inventory (KECI)	All components are listed or exempted.
Philippines inventory (PICCS)	All components are listed or exempted.

16 . Other information

Key to abbreviations

AMP = Acceptable Maximum Peak
ACGIH = American Conference of Governmental Industrial Hygienists, an agency that promulgates exposure standards.
ADG = Australian Code for the Transport of Dangerous Goods by Road and Rail
ADG Code = Australian Code for the Transport of Dangerous Goods by Road and Rail
CAS Number = Chemical Abstracts Service Registry Number
HAZCHEM Code = Emergency action code of numbers and letters which gives information to emergency services. Its use is required by the ADG Code for Dangerous Goods in bulk.
ICAO = International Civil Aviation Organization.
IATA = International Air Transport Association, the organization promulgating rules governing shipment of goods by air.
IMDG = International Maritime Organization Rules, rules governing shipment of goods by water.
IP 346 = A chemical screening assay for dermal toxicity. The European Commission has recommended that Method IP 346 be used as the basis for labelling certain lubricant oil base stocks for carcinogenicity. The EU Commission has stipulated that the classification as a carcinogen need not apply if it can be shown that the substance contains less than 3% DMSO extract as measured by IP 346. (See Note L, European Commission Directive 67/548/EEC as amended and adapted.) DMSO is a solvent.
NOHSC = National Occupational Health & Safety Commission, Australia

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TWA = Time weighted average
STEL = Short term exposure limit
UN Number = United Nations Number, a four digit number assigned by the United Nations Committee of Experts on the Transport of Dangerous Goods.

History

Date of issue 17/10/2008.
Date of previous issue No previous validation.
Prepared by Product Stewardship

Notice to reader

All reasonably practicable steps have been taken to ensure this data sheet and the health, safety and environmental information contained in it is accurate as of the date specified below. No warranty or representation, express or implied is made as to the accuracy or completeness of the data and information in this data sheet.

The data and advice given apply when the product is sold for the stated application or applications. You should not use the product other than for the stated application or applications without seeking advice from us.

It is the user's obligation to evaluate and use this product safely and to comply with all applicable laws and regulations. The BP Group shall not be responsible for any damage or injury resulting from use, other than the stated product use of the material, from any failure to adhere to recommendations, or from any hazards inherent in the nature of the material. Purchasers of the product for supply to a third party for use at work, have a duty to take all necessary steps to ensure that any person handling or using the product is provided with the information in this sheet. Employers have a duty to tell employees and others who may be affected of any hazards described in this sheet and of any precautions that should be taken.