



1. Identification of the material and supplier

Product name	BP Precoat 305
SDS no.	0000002944
Historic SDS no.	CASE1
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) 717 Bourke Street Docklands VIC 3008 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	0000002944

2. Hazards identification

Statement of hazardous/dangerous nature	HAZARDOUS SUBSTANCE. NON-DANGEROUS GOODS.
Risk phrases	R40- Limited evidence of a carcinogenic effect. R20- Harmful by inhalation. R38- Irritating to skin. R51/53- Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.
Safety phrases	S23- Do not breathe gas/fumes/vapour/spray. S24- Avoid contact with skin. S36/37- Wear suitable protective clothing and gloves. S51- Use only in well-ventilated areas. S61- Avoid release to the environment. Refer to special instructions/safety data sheet. S62- If swallowed, do not induce vomiting: seek medical advice immediately and show this container or label.

3. Composition/information on ingredients

Bitumens contain polycyclic aromatic hydrocarbons (PAH) which become more bio-available when the bitumen is cut back with a petroleum solvent. Some PAHs have been shown by experimental studies to induce skin cancer.

Ingredient name	CAS no.	%
Bitumen	8052-42-4	10 - 30
Fuels, diesel	68334-30-5	60 - 70

4. First-aid measures

Eye contact	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. 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.
Skin contact	Hot Product - Flood skin with cold water to dissipate heat, cover with clean cotton or gauze, obtain medical advice immediately. Cold Product - Wash contaminated skin with soap and water. Remove contaminated clothing and wash underlying skin as soon as reasonably practicable.
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. Unconscious casualties must be placed in the recovery position. Monitor breathing and pulse rate and if breathing has failed, or is deemed inadequate, respiration must be assisted, preferably by the mouth to mouth method. Administer external cardiac massage if necessary. Seek medical attention immediately.
Ingestion	Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. If unconscious, place in recovery position and get medical attention immediately. Get medical attention.

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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 water fog, foam, dry chemical or carbon dioxide extinguisher or spray.

Not suitable

Do not use water jet.

Hazardous decomposition products

Decomposition products may include the following materials:

carbon dioxide

carbon monoxide, sulphur oxides (SO, SO₂, etc.) and Hydrogen Sulphide (H₂S)

Unusual fire/explosion hazards

Combustible liquid. Do not allow hot molten product to come into contact with water or other liquids. Avoid spraying directly into storage containers because of the danger of boil-over. In a fire or if heated, a pressure increase will occur and the container may burst, with the risk of a subsequent explosion. Boil-over is the rapid increase in volume caused by the presence of water in hot product and the subsequent overflow from a tank.

Self-heating, leading to auto-ignition can occur at the surface of porous or fibrous materials that have become impregnated with the product and its condensed fumes/vapours. Contamination by the product of thermal insulation near hot surfaces should be avoided. When it is necessary, thermal insulation that is non-absorbent should be used.

Do not spray water onto hot product because of the danger of steam explosion. The rapid increase in pressure that is caused when water suddenly turns to steam can cause storage containers to rupture and can eject the product with great force over a wide area.

Special fire-fighting procedures

Fire water contaminated with this material must be contained and prevented from being discharged to any waterway, sewer or drain. Move containers from fire area if this can be done without risk. No action shall be taken involving any personal risk or without suitable training. Promptly isolate the scene by removing all persons from the vicinity of the incident if there is a fire. This material is toxic to aquatic organisms. Use water spray to keep fire-exposed containers cool.

Protection of fire-fighters

Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

Hazchem code

None

6. Accidental release measures

Personal precautions

No action shall be taken involving any personal risk or without suitable training. Evacuate surrounding areas. Keep unnecessary and unprotected personnel from entering. Do not touch or walk through spilt material. Shut off all ignition sources. No flares, smoking or flames in hazard area. Avoid breathing vapour or mist. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see Section 8).

Environmental precautions

Avoid dispersal of spilt material and runoff and contact with soil, waterways, drains and sewers. Inform the relevant authorities if the product has caused environmental pollution (sewers, waterways, soil or air). Water polluting material. May be harmful to the environment if released in large quantities.

Large spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Approach the release from upwind. Prevent entry into sewers, water courses, basements or confined areas. Wash spillages into an effluent treatment plant or proceed as follows. Contain and collect spillage with non-combustible, absorbent material e.g. sand, earth, vermiculite or diatomaceous earth and place in container for disposal according to local regulations. Dispose of via a licensed waste disposal contractor. Contaminated absorbent material may pose the same hazard as the spilt product.

Small spill

Stop leak if without risk. Move containers from spill area. Use spark-proof tools and explosion-proof equipment. Dilute with water and mop up if water-soluble. Alternatively, or if water-insoluble, absorb with an inert dry material and place in an appropriate waste disposal container. Dispose of via a licensed waste disposal contractor.

7. Handling and storage

Handling

Contact with hot product may cause burns. Put on appropriate personal protective equipment. Avoid contact with skin. Avoid contact with eyes. If splashing is likely to occur wear a full face visor or chemical goggles as appropriate. Do not spray onto wet road surfaces or when rain is forecast as any resultant run-off could contaminate ditches and drains.

Eating, drinking and smoking should be prohibited in areas where this material is handled, stored and processed. Wash thoroughly after handling. Remove contaminated clothing and protective equipment before entering eating areas. See also Section 8 for additional information on hygiene measures.

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. 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. 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.

Clean, dry and heat resistant hoses should be used. Do not use steam or compressed air to empty pipelines and hoses. Do not use solvents to clear obstructions from pipelines. Gentle heat can be used to clear obstructions.

This material can contain hydrogen sulphide (H₂S), a very toxic and extremely flammable gas. Vapours containing hydrogen sulphide may accumulate during storage or transport and may also be vented during filling of tanks. Hydrogen sulphide 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 sulphide. Use specially designed measuring instruments for determining its concentration.

Light hydrocarbon vapours can build up in the headspace of tanks. These can cause flammability/explosion hazards even at temperatures below the normal flash point (note: flash point must not be regarded as a reliable indicator of the potential flammability of vapour in tank headspaces). Tank headspaces should always be regarded as potentially flammable and care should be taken to avoid static electrical discharge and all ignition sources during filling, ullaging and sampling from storage tanks. When the product is pumped (e.g. during filling, discharge or ullaging) and when sampling, there is a risk of static discharge. Ensure equipment used is properly earthed or bonded to the tank structure. Electrical equipment should not be used unless it is intrinsically safe (i.e. will not produce sparks).

Combustibility Classification

Combustible liquid Class C1 (AS 1940).

Additional information- Storage

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

8 . Exposure controls/personal protection

Ingredient name

Bitumen

Fuels, diesel

Occupational exposure limits

Safe Work Australia (Australia).

TWA: 5 mg/m³ 8 hours. Issued/Revised: 5/1995 Form: Fume

ACGIH TLV (United States). Absorbed through skin.

TWA: 100 mg/m³, (measured as total hydrocarbons) 8 hours. Issued/Revised: 1/2007 Form: Inhalable fraction and vapor

TWA: 100 mg/m³ 8 hours. Issued/Revised: 1/2007 Form: Total hydrocarbons

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

Provide exhaust ventilation or other engineering controls to keep the airborne concentrations of vapours below their respective occupational exposure limits.

All activities involving chemicals should be assessed for their risks to health, to ensure exposures are adequately controlled. Personal protective equipment should only be considered after other forms of control measures (e.g. engineering controls) have been suitably evaluated. 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.

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. Ensure that eyewash stations and safety showers are close to the workstation location.

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

Hot material: to prevent thermal burns wear heat resistant and impervious gauntlets/gloves.
Cold material: Wear chemical resistant gloves. Recommended: nitrile gloves.

Eye protection

Hot material: to prevent thermal burns wear a helmet, full face visor and heat resistant neck flap / apron.
Cold material: wear safety glasses with side shields.

9 . Physical and chemical properties

Physical state	Liquid.
Colour	Brown.
Odour	Hydrocarbon. [Strong]
Flash point	>61.5 °C (Closed cup) Pensky-Martens.
Auto-ignition temperature	235°C (455°F)
Explosive properties	Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat.
Explosion limits	Lower: 0.7% Upper: 6%
Vapour pressure	<0.299 kPa (<2.25 mm Hg) at 20°C
Vapour density	Not available.
Viscosity	Kinematic: 11.74 mm ² /s (11.74 cSt) at 40°C
pH	Not available.
Boiling point / range	225°C (437°F)
Melting point / range	(Softening Point)
Relative density/Specific gravity	<1
Density	880 kg/m ³ (0.88 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: oxidising materials.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide, sulphur oxides (SO, SO ₂ , etc.) and Hydrogen Sulphide (H ₂ S)

11 . Toxicological information

Effects and symptoms

Eyes	Will cause burns if hot material contacts eyes.
Skin	Will cause burns if hot material contacts skin. Bitumens contain polycyclic aromatic hydrocarbons (PAH) which become more bio-available when the bitumen is cut back with a petroleum solvent. Some PAHs have been shown by experimental studies to induce skin cancer.
Inhalation	May cause nausea, dizziness, headaches and drowsiness if high concentrations of vapour are inhaled.
Ingestion	If swallowed, may irritate the mouth, throat and digestive system. If swallowed, may cause abdominal pain, stomach cramps, nausea, vomiting, diarrhoea, dizziness and drowsiness.

Chronic toxicity

Carcinogenic effects

POSSIBLE CANCER HAZARD - CONTAINS MATERIAL WHICH MAY CAUSE CANCER, BASED ON ANIMAL DATA.

Risk of cancer depends on duration and level of exposure.
Classified 2A (Probable for human.) by IARC: [Bitumen , oxidized]

Mutagenic effects

No known significant effects or critical hazards.

Other information

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.

Vapour, mists or fumes may contain polycyclic aromatic hydrocarbons some of which are known to produce skin cancer.

12 . Ecological information**Ecotoxicity**

Toxic to aquatic organisms, may cause long-term adverse effects in the aquatic environment.

Biodegradability**Persistence/degradability**

The biodegradability of this material has not been determined.

13 . Disposal considerations**Disposal considerations / Waste information**

The generation of waste should be avoided or minimised wherever possible. 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. Dispose of surplus and non-recyclable products via a licensed waste disposal contractor. Waste should not be disposed of untreated to the sewer unless fully compliant with the requirements of all authorities with jurisdiction. Waste packaging should be recycled. Incineration or landfill should only be considered when recycling is not feasible. This material and its container must be disposed of in a safe way. Care should be taken when handling emptied containers that have not been cleaned or rinsed out. Empty containers or liners may retain some product residues. 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	Not regulated.	-	-	-	-----	Hazchem code None
IMDG Classification	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuels, diesel). Marine pollutant	9	III		-
IATA/ICAO Classification	UN3082	ENVIRONMENTALLY HAZARDOUS SUBSTANCE, LIQUID, N.O.S. (Fuels, diesel)	9	III		-

PG* : Packing group

Special precautions for user

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

15 . Regulatory information**Standard Uniform Schedule of Medicine and Poisons**

Not scheduled

Industrial Products - Labelling requirements for SUSMP do not apply to a poison that is packed and sold solely for industrial, laboratory or manufacturing use. However, this product is labelled in accordance with NOSH National Code of Practice for labelling of workplace substances.

Control of Scheduled Carcinogenic Substances**Ingredient name**

No Listed Substance

Schedule**Other regulations****REACH Status**

For the REACH status of this product please consult your company contact, as identified in Section 1.

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

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
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

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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.