



1. Identification of the material and supplier

Product name	BP Propane
SDS no.	0000003182
Historic SDS no.	YSTTM
Product use	Multi-purpose product with applications including gaseous fuel for domestic, commercial and industrial uses; internal combustion engine fuel; aerosol propellant; Chemical feedstock.
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
Product code	0000003182

2. Hazards identification

Statement of hazardous/dangerous nature	NON-HAZARDOUS SUBSTANCE. DANGEROUS GOODS.
Risk phrases	R12- Extremely flammable.
Safety phrases	S2- Keep out of the reach of children. S3/9- Keep in a cool, well-ventilated place. S16- Keep away from sources of ignition - No smoking.

3. Composition/information on ingredients

Petroleum gas. A small quantity (typically up to 50 ppm) of ethyl mercaptan (stenching agent) is commonly added to assist in leak detection.

Ingredient name	CAS no.	%
Hydrocarbon mixture of propane, propene (propylene), butane and butene (butylene).	68477-94-1	> 99
1,3-butadiene	106-99-0	< 0.1

4. First-aid measures

Eye contact	Contact with liquid: Immediately flush with plenty of tepid water (41-46° C). DO NOT USE HOT WATER. Get immediate medical attention.
Skin contact	Contact with liquid: Immediately flush with plenty of tepid water (41-46° C). DO NOT USE HOT WATER. Get immediate medical attention.
Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Get medical attention immediately.
Ingestion	Not applicable (gas).

5. Fire-fighting measures

Extinguishing media	
Suitable	In case of fire, allow gas to burn if flow cannot be shut off immediately. Apply water from a safe distance to cool container and protect surrounding area.
Not suitable	Do not use water jet.
Hazardous decomposition products	Decomposition products may include the following materials: carbon dioxide carbon monoxide
Unusual fire/explosion hazards	Flammable gas or vapour. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion. Runoff to sewer may create fire or explosion hazard.

Special fire-fighting procedures	In case of fire, allow gas to burn if flow cannot be shut off immediately. Apply water from a safe distance to cool container and protect surrounding areas. Every precaution must be taken to keep containers cool to avoid the possibility of a boiling liquid expanding vapour explosion (BLEVE).
Protection of fire-fighters	Fire-fighters should wear positive pressure self-contained breathing apparatus (SCBA) and full turnout gear.
Fire hazards in the presence of various substances	Flammable gas or vapour. Gas may accumulate in low or confined areas or travel a considerable distance to a source of ignition and flash back, causing fire or explosion.
Hazchem code	2YE

6 . Accidental release measures

Personal precautions	Accidental releases pose a serious fire or explosion hazard. Immediately contact emergency personnel. 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. Do not breathe gas. Provide adequate ventilation. Wear appropriate respirator when ventilation is inadequate. Put on appropriate personal protective equipment (see section 8).
Environmental precautions	Ensure emergency procedures to deal with accidental gas releases are in place to avoid contamination of the environment. 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).
Large spill	Eliminate all ignition sources if safe to do so. Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment. Note: see section 1 for emergency contact information and section 13 for waste disposal.
Small spill	Eliminate all ignition sources if safe to do so. Immediately contact emergency personnel. Stop leak if without risk. Use spark-proof tools and explosion-proof equipment.

7 . Handling and storage

Handling	Use only with adequate ventilation. Keep away from heat, sparks and flame. To avoid fire or explosion, dissipate static electricity during transfer by earthing and bonding containers and equipment before transferring material. Use explosion-proof electrical (ventilating, lighting and material handling) equipment. Avoid contact with skin and clothing. Avoid breathing gas. Wash thoroughly after handling.
Storage	Store in a segregated and approved area. Keep container in a cool, well-ventilated area. Keep container tightly closed and sealed until ready for use. Avoid all possible sources of ignition (spark or flame). Segregate from oxidising materials.
Additional information-Storage	This product must be handled in compliance with Australian Standard 1596:2008: The storage and handling of LP Gas.

8 . Exposure controls/personal protection

Ingredient name	Occupational exposure limits
Propane	ACGIH TLV (United States). TWA: 1000 ppm 8 hour(s). Issued/Revised: 1/2004
	Simple asphyxiant.

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. In accordance with good industrial hygiene and safety work practices, airborne exposures should be controlled to the lowest extent practicable.
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. If operating conditions cause high vapour concentrations or the TLV is exceeded, use supplied-air respirator.
Skin and body	Avoid contact with skin and clothing. Wear clothing and footwear that cannot be penetrated by chemicals or oil.

Hand protection

Wear gloves that cannot be penetrated by chemicals or oil. Insulated gloves suitable for low temperatures

The correct choice of protective gloves depends upon the chemicals being handled, the conditions of work and use, and the condition of the gloves (even the best chemically resistant glove will break down after repeated chemical exposures). Most gloves provide only a short time of protection before they must be discarded and replaced. Because specific work environments and material handling practices vary, safety procedures should be developed for each intended application. Gloves should therefore be chosen in consultation with the supplier/manufacturer and with a full assessment of the working conditions.

Eye protection

Safety glasses with side shields or chemical goggles. Goggles with a face shield may be necessary depending on quantity of material and conditions of use.

9 . Physical and chemical properties

Physical state	Liquefied gas.
Colour	Colourless.
Odour	Sulphurous. / Distinctive when stench
Flash point	-105 °C (Closed cup) Pensky-Martens.
Explosive properties	Explosive in the presence of the following materials or conditions: open flames, sparks and static discharge and heat. May form explosive mixtures with air.
Explosion limits	Lower: 2.2% Upper: 9.5%
Vapour pressure	800 to 1530 kPa (6020 to 11510 mm Hg) at 20°C
Vapour density	Not available.
pH	Not available.
Boiling point / range	-45°C (-49°F)
Melting point / range	Not available.
Relative density/Specific gravity	Not available.
Density	520 kg/m ³ (0.52 g/cm ³) at 15°C
Solubility	Very slightly soluble in water

10 . Stability and reactivity

Stability	The product is stable.
Conditions to avoid	Avoid all possible sources of ignition (spark or flame). Do not pressurise, cut, weld, braze, solder, drill, grind or expose containers to heat or sources of ignition. Do not allow vapor to accumulate in low or confined areas.
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

11 . Toxicological information

Effects and symptoms	
Eyes	Extremely cold material. Can cause burns similar to frostbite.
Skin	Harmful on prolonged exposure. Extremely cold material. Can cause burns similar to frostbite.
Inhalation	Inhalation causes headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. At very high concentrations, can displace the normal air and cause suffocation from lack of oxygen. ABUSE: Under normal conditions of use the product is not hazardous; however, abuse involving deliberate inhalation of very high concentrations of vapour, even for short periods, can produce unconsciousness and/or result in a sudden fatality.
Ingestion	Not applicable (gas).
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 adverse effects	

This material is an asphyxiant. Asphyxiants may reduce the oxygen concentration in the air to dangerous levels. Symptoms of lack of oxygen include increased depth and frequency of breathing, air hunger, dizziness, headache, nausea or loss of consciousness.

High vapour concentrations can cause headaches, dizziness, drowsiness and nausea and may lead to unconsciousness. Exposure to vapour at high concentrations may have the following effects: heartbeat irregularity (arrhythmia)

12 . Ecological information




Ecotoxicity	Ecological testing has not been conducted on this product by BP.
Biodegradability	
Persistence/degradability	The biodegradability of this material has not been determined.
Mobility	Spillages are unlikely to penetrate the soil. This product is likely to volatilise rapidly into the air because of its high vapour pressure.
Bioaccumulative potential	This product is not expected to bioaccumulate through food chains in the environment.
Other ecological information	Unlikely to cause long term effects in the aquatic environment.

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. Do not puncture or incinerate container. Empty pressure vessels should be returned to the supplier.
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	UN1075	Petroleum gases, liquefied, or Liquefied petroleum gas	2.1	-		Hazchem code 2YE Initial emergency response guide 04 Remarks FORBIDDEN ON PASSENGER AIRCRAFT
IMDG Classification	UN1075	Petroleum gases, liquefied, or Liquefied petroleum gas	2.1	-		-
IATA/ICAO Classification	UN1075	Petroleum gases, liquefied, or Liquefied petroleum gas	2.1	-		Remarks FORBIDDEN ON PASSENGER AIRCRAFT

PG* : Packing group

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

Standard for the Uniform Scheduling of Drugs and Poisons

Not regulated.

Control of Scheduled Carcinogenic Substances

Ingredient name

No Listed Substance

Schedule

Other regulations

Europe inventory All components are listed or exempted.

United States inventory (TSCA 8b) All components are listed or exempted.

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Australia inventory (AICS)	All components are listed or exempted.
Canada inventory	All components are listed or exempted.
China inventory (IECSC)	Not determined.
Japan inventory (ENCS)	Not determined.
Korea inventory (KECI)	All components are listed or exempted.
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
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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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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.