

Section 1. Identification of the material and the supplier

Product: **BernzOmatic Propane Cylinder**
 Product Code: 1811220, 1811225, 1811228
 Product Use: Heating
 Restriction of Use: Refer to Section 15

Australian Supplier: **Bromic Pty Ltd (ABN 88 001 648 979)**
 10 Phiney Place
 Ingleburn, NSW, 2565, Australia

Tel: +61 2 9426 5224
Australian Emergency No **+61 2 9426 5224 (24/7)**

New Zealand Supplier: **Bromic Group**
 Address: Malcolm Total Logistics Auckland
 39 Richard Pearse Drive
 Airport Oaks, Mangere, 2022

Telephone: 0508 276 642
Emergency No: **0508 276 642**
0800 764 766 (National Poison Centre)

Date of SDS Preparation: 14 October 2024 v3

Section 2. Hazards Identification

Australia:
 Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia

New Zealand:
 This substance is hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

EPA Approval No: Compressed Gases (Flammable) – HSR002532

Pictograms



Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Flammable gas Cat. 1A	H220	Extremely flammable gas.
Liquefied gas	H280	Contains gas under pressure; may explode if heated

Prevention Code	Prevention Statement
P101	If medical advice is needed, have product container or label at hand.

P102	Keep out of reach of children.
P103	Read carefully and follow all instructions.
P202	Do not handle until all safety precautions have been read and understood.
P210	Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

Response Code	Response Statement
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	In case of leakage, eliminate all ignition sources.

Storage Code	Storage Statement
P410 + P403	Protect from sunlight. Store in a well-ventilated place.

Disposal Code	Disposal Statement
P501	Dispose of according to Local Regulations or Authorities

Other hazards which do not result in classification:
 May displace oxygen and cause rapid suffocation. Contact with liquefied gas may cause frostbite.

Section 3. Composition / Information on Ingredients

Ingredients	Wt%	CAS NUMBER.
Propane	87.5-100	74-98-6
Ethane	0 - 7	74-84-0
Propylene	0 - 5	115-07-1
Butane	0 - 2.5	106-97-8
Ethyl Mercaptan(odourant)	<0.1	75-08-1

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes	Not likely, due to the form of the product. If frostbite occurs, immediately flush eyes with plenty of warm water (not exceeding 105°F/41°C) for at least 15 minutes. If easy to do, remove contact lenses. Get medical attention promptly if symptoms persist or occur after washing.
If on Skin	In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. If frostbite occurs, immerse involved area in lukewarm water (20-30°C). Keep immersed for 20-40 minutes. Seek immediate medical attention.
If Swallowed	Rinse mouth. Never give anything to the mouth of an unconscious person. If vomiting occurs, place victim face downwards, with the head turned to the side and lower than the hips to prevent vomit entering the lungs. Seek medical attention if needed.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Keep at rest until fully recovered. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: None known.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Compressed Gas. Contains gas under pressure; may explode if heated.
Hazards from combustion products	None. Do not attempt to extinguish fire until propane source is isolated.
Suitable Extinguishing media	Dry chemical, carbon dioxide, water spray or fog for surrounding area.
Precautions for firefighters and special protective clothing	Evacuate all unnecessary personnel from the area. Allow only properly trained and protected emergency response personnel in area. Wear approved self-contained breathing apparatus and full protective clothing. Shut off leaks, if possible and without personal risks. If gas flow cannot be shut off, do not attempt to extinguish fire. Allow fire to burn out. Use high volume water supply to cool exposed pressure containers and nearby equipment. Approach a flame-enveloped container from the sides, never from the ends. Use extreme caution when applying water to a container that has been exposed to heat or flame for more than a short time. For uncontrollable fires and/or when flame is impinging on container, withdraw all personnel and evacuate vicinity immediately. Propane is heavier than air and travel along the ground to possible distant ignition sources causing an explosive flashback. Pressure in a container can build up due to heat. Container may rupture suddenly and violently without warning if pressure relief devices fail to function properly. If flames are against the container, withdraw immediately on hearing a rising sound, if venting increases in volume or intensity or if there is discoloration of the container due to fire.
HAZCHEM CODE	2YE

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Evacuate all non-essential personnel from affected area. Stay upwind and keep out of low areas. Do not breathe fumes and vapour.

Ventilate contaminated area thoroughly. Remove all sources of ignition. Use a spark-proof tool. Take precautionary measures against static discharge. Ensure electrical continuity by bonding and grounding (earthing) all equipment. Attempt to disperse the vapour or to direct its flow to a safe location for example by using fog sprays.

Avoid contact with spilled or released material. Immediately remove all contaminated clothing. In the event of a major spill, prevent spillage from entering drains or water courses. Shut off leaks, if possible and without personal risks. Allow product to evaporate.

Section 7. Handling and Storage

Precautions for Handling:

- Read carefully and follow all instructions.
- Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.
- Use only with adequate ventilation.
- Prevent exposure to ignition sources. Use non-sparking tools and explosion-proof equipment. Use proper bonding and/or earthing procedures. However, bonding and earthing may not eliminate the hazard from static accumulation. Material can accumulate static charges which may cause an electrical spark.
- Containers, even those that have been emptied, can contain explosive vapours. Do not cut, drill, grind, weld or perform similar operations on or near containers. Do not drop or abuse cylinders. Never strike an arc on a gas container or make a container part of an electrical circuit.

- Food, beverages and tobacco products should not be stored or consumed where this material is in use. Always wash hands before smoking, eating, drinking or using the toilet.
- Wash contaminated clothing and other protective equipment before storage or re-use.
- Provide eyewash fountains and safety showers in close proximity to points of potential exposure.

Precautions for Storage:

- Store in a tightly closed original container in a cool, dry, and well ventilated area.
- Do not expose to temperatures exceeding 50°C.
- Isolate from combustible materials.
- Provide separate storage locations for other compressed and flammable gases. Propane containers should be separated from oxygen cylinders or other oxidizers by a minimum distance of 6m, or by a barrier of non-combustible material at least 1.5m high having a fire rating of at least 30 minutes. Full and empty cylinders should be segregated.
- Keep cylinders in an upright position at all times.
- Keep container valve closed and plugged or capped when not in use.
- Install protective caps when cylinders are not connected for use.
- Protect from heat, sparks, flame and other sources of ignition.
- Keep away from contact with oxidizing and other incompatible materials.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³
Butane [106-97-8]	800	1,900	-	-
Ethyl mercaptan [75-08-1]	0.5	1.3	-	-
Propane [74-98-6]	(asphyxiant)			

Workplace Exposure Standard – Time Weighted Average (WES-TWA). The time-weighted average exposure standard designed to protect the worker from the effects of long-term exposure. Workplace Exposure Standard – Short-Term Exposure Limit (WES STEL). The 15-minute average exposure standard. Applies to any 15- Minute period in the working day and is designed to protect the worker against adverse effects of irritation, chronic or irreversible tissue change, or narcosis that may increase the likelihood of accidents. The WES-STEL is not an alternative to the WES-TWA; both the short-term and time-weighted average exposures apply. Workplace Exposure Standards and Biological Exposure Indices NOV 2023 14TH EDITION.

Engineering Controls

Adequate explosion-proof ventilation to control airborne concentrations below the exposure guidelines/limits.

Personal Protection Equipment



Eyes	Wear goggles with side shields.
Hands and Skin	Wear gloves and protective clothing that are impervious to the product for the duration of the anticipated exposure. Safety shoes are recommended when handling cylinders.
Respiratory	If engineering controls do not maintain airborne concentrations to a level which is adequate to protect worker health, use an approved self-contained breathing apparatus.

Section 9 Physical and Chemical Properties

Appearance	Colourless gas (at normal temperature and pressure)
-------------------	---

Odour	Rotten Egg
Odour Threshold	Not available
pH	Not applicable
Boiling Point	-42°C @ 1 atm. pressure
Melting Point	-188°C
Freezing Point	Not available
Flash Point	-104°C
Flammability	Extremely flammable
Upper and Lower Explosive Limits	2.15% - 9.6%
Vapour Pressure	127 psig @20°C, 210 psig @45°C, 287 psig @55°C
Vapour Density	1.5 @ 15.56°C
Relative Density	0.504 @ 15.56°C (liquid)
Solubility in water	Slight (0.1%-1%)
Partition coefficient (n-octanol/water)	1.77
Auto-ignition Temperature	432°C
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not applicable
Odourant Warning	Ethyl mercaptan (odourant) is added to aid in the detection of leaks due to a foul smell. The odour level can be reduced by certain chemical reactions with material in the propane system or when fugitive propane gas from underground leaks passes through certain soils. No odorant will be 100% effective in all circumstances.

Section 10. Stability and Reactivity

Stability of Substance	Stable at ambient temperature and under normal conditions of use.
Conditions to Avoid	Strong heat and sources of ignition.
Incompatible Materials	Strong oxidising agents.
Hazardous Decomposition Products	Under fire conditions, fumes, smoke, carbon monoxide, aldehydes and other decomposition products.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	May cause anesthetic effects, Central Nervous System (CNS) depression, headache, drowsiness and dizziness. Extremely high concentrations may cause asphyxiation and death by displacing oxygen from the atmosphere.
Eye	Eye contact may cause cold burns or frostbite.
Skin	Skin contact may cause cold burns or frostbite.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Persistence and degradability	No data available
Bioaccumulation	No data available
Mobility in Soil	No data available
Other adverse effects	No data available

Section 13. Disposal Considerations

Disposal Method: Do not attempt to dispose of residual or unused product in the container. Return it to your supplier.

Precautions: None known.

Disposal methods to avoid: Do not pierce or burn.

Section 14 Transport Information

This product is classified as Dangerous Goods according to the Australian Code for the Transport of Dangerous Goods by Road and Rail (ADG Code) (7th edition).

This product is classified as a Dangerous Good for transport in NZ ; NZS 5433:2020



Road and Rail Transport

UN No: 1075
 Class-primary: 2.1
 Packing Group: Non allocated
 Proper Shipping Name: PETROLEUM GASES, LIQUEFIED

Air Transport

UN No: 1075
 Class-primary: 2.1
 Packing Group: Non allocated
 Proper Shipping Name: PETROLEUM GASES, LIQUEFIED

Marine Transport

UN No: 1075
 Class-primary: 2.1
 Packing Group: Non allocated
 Proper Shipping Name: PETROLEUM GASES, LIQUEFIED

Section 15 Regulatory Information

Australia:

Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS) including Work, Health and Safety regulations, Australia.

Not classified as a Scheduled Poison according to the Standard for the Uniform Scheduling of Medicines and Poisons (SUSMP).

New Zealand:

This substance is classified hazardous according to the EPA Hazardous Substances (Classification) Notice 2020

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	100kg
Tracking Trigger Quantities	Not required
Signage Trigger Quantities	250kg
Emergency Response Plan	300kg
Secondary Containment	300kg
Restriction of Use	Only use for the intended purpose.

Section 16 Other Information

Glossary

Cat	Category
EC ₅₀	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
LC ₅₀	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD ₅₀	Lethal dose to kill 50% of test animals/organisms.
LEL	Lower explosive level.
OSHA	American Occupational Safety and Health Administration.
TEL	Tolerable Exposure Limit.
TLV	Threshold Limit Value-an exposure limit set by responsible authority.
UEL	Upper Explosive Level
WES	Workplace Exposure Limit

References:

Australia:

1. Preparation of Safety Data Sheets for Hazardous Chemicals Code of Practice.
2. Standard for the Uniform Scheduling of Medicines and Poisons.
3. Australian Code for the Transport of Dangerous Goods by Road & Rail.
4. Model Work Health and Safety Regulations, Schedule 10: Prohibited carcinogens, restricted carcinogens and restricted hazardous chemicals.
5. Workplace exposure standards for airborne contaminants, Safe work Australia.
6. American Conference of Industrial Hygienists (ACGIH).
7. Globally Harmonised System of classification and labelling of chemicals.

New Zealand:

1. EPA Hazardous Substances (Safety Data Sheets) Notice 2017
2. Workplace Exposure Standards and Biological Exposure Indices Nov 2023 14th edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2020
5. HSW (Hazardous Substances) Regulations 2017

Disclaimer

This document has been prepared by TCC (NZ) Ltd and serves as the suppliers Safety Data Sheet ('SDS'). It is based on information concerning the product which has been provided to TCC (NZ) Ltd or obtained from third party sources and is believed to represent the current state of knowledge as to the appropriate safety and handling precautions for the product at the time of issue. Further clarification regarding any aspect of the product should be obtained directly from the manufacturer. While TCC (NZ) have taken all due care to include accurate and up-to-date information in this SDS, it does not provide any warranty as to accuracy or completeness. As far as lawfully possible, TCC (NZ) Ltd accept no liability for any loss, injury or damage (including consequential loss) which may be suffered or incurred by any person as a consequence of their reliance on the information contained in this SDS

The information herein is given in good faith, but no warranty, express or implied is made.

Please contact the Australian Manufacturer or New Zealand distributor, if further information is required.

Issue Date: 14 October 2024

Review Date: 14 October 2029