

## SAFETY DATA SHEET

### Section 1. Identification of the material and the supplier

Product: **Bromic R290 (Propane) Cylinder 370g**  
 Part Number: 1811226  
 Product Use: Refrigerant  
 Restriction of Use in NZ: 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: 20 July 2021

### 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: Gases under Pressure Mixtures (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
P103	Read label before use.
P210	Keep away from heat, sparks, open flames or hot surfaces. No smoking.

Response Code	Response Statement
P377	Leaking gas fire: Do not extinguish, unless leak can be stopped safely.
P381	Eliminate all ignition sources if safe to do so.

Storage Code	Storage Statement
P403	Store in a well-ventilated place.

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

### Section 3. Composition / Information on Hazardous Ingredients

Ingredients	Wt%	CAS NUMBER.
Propane (HC R290)	100%	74-98-6

### Section 4. First Aid Measures

General	If inhaled, remove to fresh air. If breathing is difficult, give oxygen. If not breathing, give artificial respiration. Get medical attention. <b>Notes to physician</b> Do not give adrenaline or similar drugs.
If in Eyes	Immediately flush eyes with a large amount of water for at least 15 minutes. If symptoms exist and/or persist, get prompt medical attention.
If on Skin	Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. In case of contact with liquid, warm frozen tissues with water and get medical attention. Remove contaminated clothing and shoes. Wash clothing before reuse.
If Swallowed	Risk of ingestion is extremely low. As this product is a gas, refer to the inhalation section. Do not induce vomiting unless directed to do so by medical personnel. Never give anything by mouth to an unconscious person. Get medical attention.
If Inhaled	In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation. In low concentrations may cause narcotic effects. Symptoms may include dizziness, headache, nausea and loss of co-ordination. Remove victim to uncontaminated area wearing self-contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

#### Most important symptoms and effects, both acute and delayed

Symptoms: No data available.

Treatment: Do not give adrenaline or similar drugs.

### Section 5. Fire Fighting Measures

<b>Hazard Type</b>	Flammable Gas
<b>Hazards from combustion products</b>	Incomplete combustion may form carbon monoxide. Move away from the container and cool with water from a protected position. Do not extinguish a leaking gas flame unless absolutely necessary. Spontaneous.
<b>Suitable</b>	All known extinguishers can be used. Do not use water jet.

<b>Extinguishing media</b>	
<b>Precautions for firefighters and special protective clothing</b>	Fire-fighters should wear self-contained positive pressure breathing apparatus (SCBA) and full turnout gear.
<b>HAZCHEM CODE</b>	<b>2YE</b>

**Section 6. Accidental Release Measures**

**Personal precautions:**

Immediately contact emergency personnel. Keep unnecessary personnel away. Use suitable protective equipment (Section 8). Provide adequate ventilation. In case of insufficient ventilation, wear suitable respiratory equipment.

**Spill and Disposal procedures:**

Stop leak if without risk. Spillages may evaporate rapidly.

**Section 7. Handling and Storage**

**Precautions for Handling:**

- Keep container below 50°C in a well ventilated place.

**Precautions for Storage:**

- Store in original container, protected from direct sunlight.
- Keep container tightly closed in a cool, well- ventilated place.
- Segregate from oxidant gases and other oxidants in store.
- Ensure equipment is adequately earthed. Suck back of water into the container must be prevented.
- Purge air from system before introducing gas.
- Do not allow backfeed into the container.
- Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.
- Keep away from ignition sources (including static discharges).
- Refer to supplier's container handling instructions.

**Section 8 Exposure Controls / Personal Protection**

**WORKPLACE EXPOSURE STANDARDS (provided for guidance only)**

Substance	TWA		STEL	
	ppm	mg/m <sup>3</sup>	ppm	mg/m <sup>3</sup>

No ingredients have exposure limits

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 (WESSTEL). 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 2020 12<sup>TH</sup> EDITION.

**Engineering Controls**

Provide adequate ventilation. Do not enter storage areas and confined spaces unless adequately ventilated.

**Personal Protection Equipment**



<b>Eyes</b>	Recommended: safety glasses with side shields, splash goggles. Possible: face shield.
<b>Hands</b>	Insulated gloves suitable for low temperatures. Recommended: butyl rubber
<b>Skin</b>	Protective clothing should be worn to prevent skin contact.
<b>Respiratory</b>	In case of insufficient ventilation, wear suitable respiratory equipment. Recommended: supplied-air respirator.

## Section 9 Physical and Chemical Properties

<b>Appearance</b>	Liquefied Gas
<b>Colour</b>	Colourless
<b>Odour</b>	Odourless
<b>Odour Threshold</b>	Not available
<b>pH</b>	Not available
<b>Boiling Point</b>	- 42 °C @ 1 bar
<b>Melting Point</b>	- 187 °C @ 1 bar
<b>Freezing Point</b>	Not available
<b>Flash Point</b>	Not available
<b>Flammability</b>	Not available
<b>Upper and Lower Explosive Limits</b>	low 2.37-high 9.50 In air at 1 bar (% vol)
<b>Vapour Pressure</b>	Not available
<b>Vapour Density</b>	Not available
<b>Relative Density</b>	0.5 g/cm <sup>3</sup> a 20°C
<b>Water Solubility</b>	0.04 g/100ml a 25°C a 1013 hPa
<b>Partition Coefficient:</b>	Not available
<b>Auto-ignition Temperature</b>	468 °C
<b>Decomposition Temperature</b>	Not available
<b>Kinematic Viscosity</b>	Not available
<b>Particle Characteristics</b>	Not available
<b>Molecular weight</b>	44.1
<b>Critical Point</b>	96.5°C

## Section 10. Stability and Reactivity

<b>Stability of Substance</b>	This product is stable under normal conditions.
<b>Possibility of hazardous reactions</b>	No data available.
<b>Conditions to Avoid</b>	In a fire or if heated, a pressure increase will occur and the container may burst. Pressurised container: protect from sunlight and do not expose to temperature exceeding 50°C. Do not pierce or burn, even after use.
<b>Incompatible Materials</b>	May react violently with oxidants.
<b>Hazardous Decomposition Products</b>	These products are carbon oxides CO, CO <sub>2</sub>

## Section 11 Toxicological Information

### Acute Effects:

<b>Swallowed</b>	Not triggered.
<b>Dermal</b>	Not triggered. Dermal contact with rapidly evaporating liquid could result in freezing of the tissues or frostbite. Slightly irritating to the skin.
<b>Inhalation</b>	Not triggered. Heartbeat irregularity (arrhythmia).
<b>Eye</b>	Not triggered. Slightly irritating to the eyes.
<b>Skin</b>	Not triggered.

## Chronic Effects:

<b>Carcinogenicity</b>	Not triggered.
<b>Reproductive Toxicity</b>	Not triggered.
<b>Germ Cell Mutagenicity</b>	Not triggered.
<b>Aspiration</b>	Not triggered.
<b>STOT/SE</b>	Not triggered.
<b>STOT/RE</b>	Not triggered.

## Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

<b>Persistence and degradability</b>	- <b>ODP</b> : 0 - <b>GWP</b> :3
<b>Bioaccumulation</b>	No data available.
<b>Mobility in Soil</b>	No data available.
<b>Other adverse effects</b>	No data available.

## Section 13. Disposal Considerations

**Disposal Method:** Dispose of according to local Regulations.

**Precautions or methods to avoid:** None known.

## 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 5433:2012**



### **Road and Rail Transport**

UN No: 1978  
Class-primary: 2.1  
Proper Shipping Name: PROPANE

### **Air Transport**

UN No: 1978  
Class-primary: 2.1  
Proper Shipping Name: PROPANE

### **Marine Transport**

UN No: 1978  
Class-primary: 2.1  
Proper Shipping Name: PROPANE  
Marine pollutant: No

## 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

EPA Approval Code: **Gases under Pressure Mixtures (Flammable) – HSR002532**

<b>GHS Classification and Category</b>
Flammable gas Cat. 1A

<b>HSW (HS) Regulations 2017 and EPA Notices</b>	<b>Trigger Quantity</b>
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 <sub>50</sub>	Median effective concentration.
EEL	Environmental Exposure Limit.
EPA	Environmental Protection Authority
HSNO	Hazardous Substances and New Organisms.
HSW	Health and Safety at Work.
LC <sub>50</sub>	Lethal concentration that will kill 50% of the test organisms inhaling or ingesting it.
LD <sub>50</sub>	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 2017 edition.
3. Assigning a hazardous substance to a HSNO Approval (Aug 2013).
4. Transport of Dangerous goods on land NZS 5433:2012
5. HSW (Hazardous Substances) Regulations 2017

### Disclaimer

Product Name: Bromic R290 (Propane) Cylinder 370g  
Date of SDS: 20 July 2021

SDS Prepared by: Technical Compliance Consultants (NZ) Ltd  
Tel: 64 9 475 5240 www.techcomp.co.nz

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: 20 July 2021 Review Date: 20 July 2026