

SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product: **Bromic Brazing Gas 400g**
 Part Number: 1811123
 Product Use: Use as fuels, functional fluids, use in polymer processing, propellant gas, intermediates
 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.
Propylene	100%	115-01-01

Section 4. First Aid Measures

General Information	If the person is unconscious, place it in the recovery position and get immediately medical attention. Do not give anything to an unconscious person. If breathing is irregular, give oxygen. If breathing stopped, administer artificial respiration. If symptoms persist, call a physician.
If in Eyes	Remove contact lenses, if present. Rinse immediately with plenty of water, also under the eyelids, for at least 15 minutes. If symptoms persist, call a physician.
If on Skin	In case of contact with skin, wash immediately with plenty of water. Remove contaminated clothing. If irritation or blistering occurs, call a physician
If Swallowed	Unlikely route of exposure. As this product is a gas, refer to the section "Inhalation". Do not induce vomiting without medical advice. Obtain immediate medical attention.
If Inhaled	Remove person to fresh air. Remove contaminated clothing and loosen remaining clothing. Allow person to assume most comfortable position and keep warm. Administer oxygen if necessary. Keep at rest until fully recovered. Apply artificial respiration if not breathing. Get medical advice if breathing becomes difficult.

Most important symptoms and effects, both acute and delayed

Symptoms: 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.

Treatment: Do not give adrenaline-ephedrine or similar drugs group. Treat symptomatically.

Section 5. Fire Fighting Measures

Hazard Type	Flammable Gas
Hazards from combustion products	An incomplete combustion could generate a complex mixture of solid and liquid airborne particles and gases, including CO ₂ (carbon monoxide). Exposure to the source of heat and/or to the fire may cause

	containers to rupture/explode.
Suitable Extinguishing media	CO2, foam, dry chemical power. Do not use water jet.
Precautions for firefighters and special protective clothing	Firefighters must use standard protective equipment including flame resistant clothing, helmet with face shield, gloves and protective boots in enclosed spaces, SCBA. Firefighters must use standard protective equipment including. Guideline: EN 469 Protective clothing for firefighters. Performance requirements for protective clothing for firefighting. EN 15090 Footwear for firefighters. EN 659 Protective gloves for firefighters. EN 443 Helmets for firefighting in buildings and other structures. EN 137 Respiratory protective devices - Self-contained open circuit compressed air breathing apparatus with full face mask - Requirements, testing, marking.
HAZCHEM CODE	2YE

Section 6. Accidental Release Measures

Personal precautions:

Refer to Section 8 for PPE requirements. Evacuate area of unnecessary personnel. The vapours are heavier than air and may move along the ground over long distances.

If the safety conditions allow, arrest or contain the leak at the source.

Avoid direct contact with released material. Stay upwind.

In case of large spillages, alert the emergency teams.

If the safety conditions allow, eliminate all sources of (ex.: electricity, sparks, fires, flares). Use only non-sparking tools.

If required, notify to the relevant authorities in accordance with the applicable legislation.

Environmental precautions:

Do not release the product into the environment. Prevent from entering into soil, ditches, sanitary sewers, waterways and/or groundwater. Avoid any spills and leaks.

Spill and Disposal procedures:

Ventilate/aerate the area/local.

Let the evaporation of the product. Take into consideration that the vapours are heavier than air.

The spillage of liquid product in the water will be presumably in a rapid and complete evaporation.

Isolate the area and prevent the risk of fire / explosion for vessels and other structures, taking into consideration the direction and speed of the wind, until the complete dispersion of the product.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep away from heat, sparks, open flames or hot surfaces. No smoking.
- Only experienced and properly instructed persons should handle gases under pressure. Consider pressure relief device(s) in gas installations.
- Service technician must check regularly your entire gas system to ensure that it is leak-free. Do not smoke, eat or drink when handling product.
- Keep equipment free from oil and grease.
- Use properly specified equipment which is suitable for this product, its supply pressure and temperature. Use only oxygen approved lubricants and oxygen approved sealing.
- Use only with equipment cleaned for oxygen service and rated for cylinder pressure. Do not breathe gas. Contact your supplier if in doubt.
- Refer to supplier's handling instructions.
- Do not allow back-feed into the container.
- Protect containers from physical damage; do not drag, roll, slide or drop.

- When moving containers, even for short distances, use appropriate equipment (trolley, hand truck, fork truck, etc.) designed to transport cylinders.
- Leave valve protection caps in place until the container has been secured against either a wall or bench or placed in a container stand and is ready for use.
- If user experiences any difficulty operating cylinder valve, discontinue use and contact the supplier. Damaged valves should be reported immediately to the supplier.
- Never attempt to repair or modify container valves or safety relief devices.
- Keep container valve outlets clean and free from contaminants particularly oil and water.
- Replace valve outlet caps or plugs and container caps where supplied as soon as container is disconnected from equipment.
- Close container valve after each use and when empty, even if still connected to equipment. Never attempt to transfer gases from one container to another.
- Never use direct flame or electrical heating devices to raise the pressure of a container.
- Do not remove or deface labels provided by the supplier for the identification of the container contents. Suck back of water into the container must be prevented.
- Open valve slowly to avoid pressure shock.
- Do not to eat, drink and smoke in work areas.

Precautions for Storage:

- Observe all regulations and local requirements regarding storage of containers.
- Containers should not be stored in conditions likely to encourage corrosion.
- Containers valve or caps should be in place.
- Keep containers tightly closed in a dry, cool and well-ventilated place (below 50 °C), away from any ignition or heat sources.
- Keep away from combustible materials.
- Store in original container.

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

Substance	TWA		STEL	
	ppm	mg/m ³	ppm	mg/m ³

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 12TH EDITION.

Engineering Controls

Provide adequate general and local exhaust ventilation. Before starting any operation in a confined space, carry out a proper recovery, control the atmosphere and the oxygen content and flammability.

Personal Protection Equipment



Eyes	Safety glasses with side-shields (according to directive EN 166).
Hands	Thermal-protective gloves resistant to chemical products (EN 374). The penetration time of the gloves must be greater than the period of expected use. Gloves should be replaced immediately if they show signs of wear or deterioration.
Skin	Wear long-sleeved clothes. Remove or clean contaminated clothing. Apron or protective clothing are not necessary.

Respiratory	Mask filter for gases and vapours (EN141). To obtain an adequate protection, filter class you should choose according to the type and concentration of contaminants. The breathing apparatus with filters do not operate satisfactorily when the air contains high concentrations of vapours. In case of insufficient ventilation, wear self-contained breathing apparatus (EN529).
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Section 9 Physical and Chemical Properties

Appearance	Gas
Colour	Colourless
Odour	Characteristic, olefin
Odour Threshold	Not available
pH	Not available
Boiling Point	- 47,70 °C @ 1 bar
Melting Point	- 185,25 °C @ 1 bar
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure	1,52 Gas (air=1) 0,5139 Liquid (water=1)
Vapour Density	Not available
Specific Gravity	Not available
Water Solubility	200 mg/l @ 25 °C
Partition Coefficient:	1,77 log Pow @ 20 °C
Auto-ignition Temperature	455 °C
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not available
Molecular mass	42,08 g/mol
VOC content	≥ 90% (UE, CH, USA)

Section 10. Stability and Reactivity

Stability of Substance	This product is stable under normal conditions.
Possibility of hazardous reactions	Contact with strong oxidizers (peroxides, chromates, etc.) may cause a fire hazard. May form an explosive mixture in the presence of air. Sensitivity to heat, friction or shock cannot be assessed in advance.
Conditions to Avoid	Store separate from oxidizing agents. Protect from sunlight and do not expose to temperatures exceeding 50° C. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. Do not smoke. Avoid electrostatic charges. Do not pierce or burn, even after use. Do not spray on a naked flame or any incandescent material.
Incompatible Materials	Strong oxidizing agents.
Hazardous Decomposition Products	Under normal conditions of storage and use, hazardous decomposition products should not be produced. Thermal decomposition can produce: toxic vapours.

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Not applicable.
Eye	Not applicable.
Skin	Not applicable.

Chronic Effects:

Carcinogenicity	Not applicable.
Reproductive Toxicity	Not applicable.
Germ Cell Mutagenicity	Not applicable.
Aspiration	Not applicable.
STOT/SE	Not applicable.
STOT/RE	Not applicable.
Other hazards	Exposure to high concentrations may cause asphyxiation as a consequence of oxygen deficiency. Contact with liquid may cause cold burns/frostbite. Likely routes of exposure: inhalation.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Persistence and degradability	Studies QSAR have been carried out with propylene, which has a biodegradability of 50% in 2.36 days, so the product is biodegradable.
Bioaccumulation	log Pow 1.77 Possibility of bio-accumulation Low bioaccumulation potential.
Mobility in Soil	Product is easily volatile. No indication of bioaccumulation potential.
Other adverse effects	ODP (Ozone Depletion Potential) 0 years GWP (Global Warming Potential) 2 years (It is expressed the contribution to the greenhouse effects caused by a gaseous emission into the atmosphere. All molecules have a potential in relation to the CO2 molecule, which has a potential of 1 and acts as a reference point).

**Individual component information (Please refer to www.epa.govt.co.nz for full details):
Propylene (115-07-1)**

Route	Species	Duration	Value LC50/EC50
Fish 1		96 hr	51.7 mg/L
Acute aquatic, Crustacean	Daphnia magna 1	48 hr	28.2 mg/L
Acute aquatic, Algal		96 hr	12.1 mg/L

Section 13. Disposal Considerations

Disposal Method: Dispose 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: 1077
Class-primary 2.1
Proper Shipping Name: PROPYLENE

Air Transport

UN No: 1077
Class-primary 2.1
Proper Shipping Name: PROPYLENE

Marine Transport

UN No: 1077
Class-primary 2.1
Proper Shipping Name: PROPYLENE
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**

GHS Classification and Category

Flammable gas Cat. 1A

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.
HSW	Health and Safety at Work.
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 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

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.

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