SAFETY DATA SHEET

Section 1. Identification of the material and the supplier

Product:	**Oxygen**
Product Code:	1811320, 1811321, 1811420, 1811322
roduct Use:	Brazing applications
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 5222
Australian Emergency No	**1300 276 642**
New Zealand Supplier:	**Bromic Group**
Address:	Malcolm Total Logistics Auckland 39 Richard Pearse Drive Airport Oaks, Mangere, 2022
Telephone:	0508 276 642
New Zealand Emergency No:	**0508 276 642** **0800 764 766 (National Poison Centre)**
Date of SDS Preparation:	20 May 2022 v2

Section 2. Hazards Identification

Australia:
Classified as Hazardous according to the Globally Harmonised System of Classification and labelling of Chemicals (GHS 7) 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: HSR001029

Pictograms

Oxidiser

Signal Word: **DANGER**

GHS Classification and Category	Hazard Code	Hazard Statement
Oxidising gases Cat. 1	H270	May cause or intensify fire oxidiser.

Prevention Code	Prevention Statement
P103	Read label before use.

P220	Keep/Store away from clothing or combustible materials.
P244	Keep reduction valves free from grease and oil.

Response Code	**Response Statement**
P370 + P376	In case of fire: Stop leak 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 Ingredients

Ingredients	Wt%	CAS NUMBER.
Oxygen	100%	7782-44-7

Section 4. First Aid Measures

Routes of Exposure:

If in Eyes — If exposed to liquid, rinse cautiously with water for 15 minutes. Seek immediate medical attention.

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 — Ingestion is considered unlikely.

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	Oxidiser
Hazards from combustion products	Oxygen strongly supports combustion. May react violently with combustible materials. Exposure to fire may cause containers to rupture/explode.
Suitable Extinguishing media	All known extinguishing media can be used.
Precautions for firefighters and special protective clothing	When fighting a major fire wear self-contained breathing apparatus and protective equipment. Evacuate all unnecessary personnel from the area. Allow only properly trained and protected emergency response personnel in area. If possible, stop flow of product. Move away from the container and cool with water from a protected position.
HAZCHEM CODE	**2S**

Section 6. Accidental Release Measures

Wear protective equipment as detailed in Section 8. Evacuate all non-essential personnel from affected area. Ensure adequate ventilation. Extinguish all sources of ignition.

Stop leak if safe to do so and allow the product to evaporate. If the cylinder is leaking, move it to a well ventilated remote area and allow discharging. Ventilate area.

Section 7. Handling and Storage

Precautions for Handling:

- Read label before use.
- Keep/Store away from clothing or combustible materials.
- Keep reduction valves free from grease and oil.
- Prevent exposure to combustible materials and 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.
- 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.
- Protect from heat, sparks, open flames and other sources of ignition.
- Do not expose to temperatures exceeding 50 °C.
- Segregate from flammable gases. and other flammable materials.
-

Section 8 Exposure Controls / Personal Protection

WORKPLACE EXPOSURE STANDARDS (provided for guidance only)

	TWA		STEL	
Substance	**ppm**	**mg/m³**	**ppm**	**mg/m³**

No ingredient has 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 (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 2022 13TH EDITION.

Engineering Controls
Ensure adequate ventilation.

Personal Protection Equipment

Eyes	Wear goggles with side shields.
Hands and Skin	Wear gloves and protective clothing.
Respiratory	Avoid oxygen rich (>21%) atmospheres.

Section 9 Physical and Chemical Properties

Appearance	Colourless gas
Odour	Odourless
Odour Threshold	Not available
pH	Not available
Boiling Point	-183°C
Melting Point	Not available
Freezing Point	Not available
Flash Point	Not available
Flammability	Not available
Upper and Lower Explosive Limits	Not available
Vapour Pressure @ 20^0C	Not available
Vapour Density	Not available
Relative Density	1.1049 @ 21°C
Solubility in water	0.0489 @ 21°C
Partition Coefficient:	Not available
Auto-ignition Temperature	Not available
Decomposition Temperature	Not available
Kinematic Viscosity	Not available
Particle Characteristics	Not applicable

Section 10. Stability and Reactivity

Stability of Substance	Stable at ambient temperature and under normal conditions of use.
Conditions to Avoid	Sources of ignition.
Incompatible Materials	Oil and grease can spontaneously ignite at low temperatures in oxygen enriched atmospheres. Many other materials, which do not burn in air, will vigorously burn in pure oxygen. All non-metals must be oxygen compatible. Metals can be ignited and will continue to burn in pure oxygen atmospheres under specific conditions of temperature and pressure.
Hazardous Decomposition Products	None

Section 11 Toxicological Information

Acute Effects:

Swallowed	Not applicable.
Dermal	Not applicable.
Inhalation	Continuous inhalation of high concentrations of may cause chest tightness, burning pains and coughing. Other symptoms of hyperoxia include cramps, nausea, dizziness, hypothermia, loss of vision, fainting spells and convulsions.
Eye	Eye contact with liquid may cause cold burns or frostbite.
Skin	Skin contact with liquid 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.

STOT/RE	Not applicable.

Section 12. Ecotoxicological Information

This product is not hazardous to the environment.

Persistence and degradability	Oxygen is the most abundant element on earth. As a gaseous element, it forms 20.95 % (v/v) of the atmosphere. It makes up 46.6% of the earth's crust as oxides.
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 5433:2012

Road and Rail Transport

UN No:	1072
Class-primary	2.2
Sub Class	5.1
Packing Group	Non allocated
Proper Shipping Name:	OXYGEN, COMPRESSED

Air Transport

UN No:	1072
Class-primary	2.2
Sub Class	5.1
Packing Group	Non allocated
Proper Shipping Name:	OXYGEN, COMPRESSED

Marine Transport

UN No:	1072
Class-primary	2.2
Sub Class	5.1
Packing Group	Non allocated
Proper Shipping Name:	OXYGEN, COMPRESSED

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: HSR001029

HSW (HS) Regulations 2017 and EPA Notices	Trigger Quantity
Certified Handler	Not required
Location Certificate	200 m^3
Tracking Trigger Quantities	Not required
Fire Extinguisher Quantities	10 m^3 – 1x / 50 m^3 - 2x
Signage Trigger Quantities	500 m^3
Emergency Response Plan	100 m^3
Secondary Containment	Not required
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 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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