



SAFETY DATA SHEET

OXYGEN

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

Product Name	Oxygen
Product Code	211423
Other Names	-
Product Use	Industrial applications
Company Name	Primus Australia Pty Ltd
Address	3/20 Enterprise Drive Bundoora VIC 3083
Telephone Number	61 3 9468 4400
Emergency Telephone	13 11 26 (Poisons Information Centre)

2. HAZARDS IDENTIFICATION

Classification of the Substance or Mixture



Flame over circle



Gas - Cylinder

H270 - May cause or intensify fire; oxidiser.	Oxidising gases - Danger - Hazard Category 1
H280 - Contains gas under pressure; may explode if heated.	Gases Under Pressure – Warning – Compressed gas

GHS Label Elements Including Precautionary Statements

Prevention:

Keep away from combustible materials.
Keep reduction valves free from grease and oil.

Response:

In case of fire: Stop leak if safe to do so.

Storage:

Store in well-ventilated place.
Protect from sunlight.

Disposal:

-

Other hazards which do not result in classification

No additional information.



SAFETY DATA SHEET

3. COMPOSITION / INFORMATION ON INGREDIENTS

Ingredient (common name)	CAS Number	Proportion
Oxygen	7782-44-7	100%

4. FIRST AID MEASURES

Inhalation	If inhaled, remove to fresh air. If not breathing, give artificial respiration. If breathing is difficult, give oxygen. Seek medical attention.
Ingestion	Ingestion is not a normal route of exposure for gases.
Skin	In case of skin contact, immediately remove contaminated clothing and wash affected areas with water and soap. Seek medical attention if symptoms occur.
Eyes	In case of eye contact, rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if symptoms occur.

5. FIRE FIGHTING MEASURES

Suitable Extinguishing Media	For major fires call the Fire Brigade. Ensure that an escape path is available from any fire. Use extinguishing media suitable for surrounding fires.
Hazardous Combustion Products	None.
Special Protective Actions for Firefighters	Wear Safe Work Australia approved self-contained breathing apparatus and full protective clothing.
Unusual Fire or Explosion Hazards	Oxygen strongly supports combustion. May react violently with combustible materials. Exposure to fire may cause containers to rupture/explode.
Hazchem Code	2S

6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures	Wear full protective clothing. Evacuate all non-essential personnel from affected area. Remove all sources of ignition. Provide adequate ventilation.
Environmental Precautions	Try to stop release. Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.
Methods and Materials for Containment and Cleaning Up	Try to stop release. If the cylinder is leaking, move it to a well ventilated remote area and allow discharging. Ventilate area.

7. HANDLING AND STORAGE

Precautions for Safe	Prevent exposure to combustible materials and ignition sources.
-----------------------------	---



SAFETY DATA SHEET

Handling	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. Protect cylinders from physical damage.
Conditions for Safe Storage	Store in a cool, dry, and well ventilated area. Do not expose to temperatures exceeding 50°C. Segregate from flammable gases and other flammable materials. Protect from heat, sparks, flame and other sources of ignition. Cylinders should be stored upright, with valve protection cap in place and firmly secured to prevent falling or being knocked over.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters - Exposure Standards (Safe Work Australia)	No exposure standards set.
Engineering Controls	Ensure adequate ventilation.

Personal Protective Equipment (PPE)

Respiratory Protection	Avoid oxygen rich (>21%) atmospheres. Use a full-face supplied air respirator. See Australian Standards AS/NZS 1715 and 1716 for more information.
Eye/Face Protection	Safety glasses with top and side shields or goggles. See Australian Standards AS 1336 and AS/NZS 1337 for more information.
Skin Protection	Wear gloves and protective clothing. See Australian Standards AS 2161 and 2919 and AS/NZS 2210 for more information.
Thermal Hazards	No information available.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colourless gas
Odour	Odourless
Odour Threshold	No information available
pH	No information available
Melting Point / Freezing Point	-218.55°C
Initial Boiling Point / Range	-183°C
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability	Contact with combustible material may cause fire.
Lower Flammability or Explosive Limit	Not applicable
Upper Flammability or Explosive Limit	Not applicable
Vapour Pressure	No information available
Vapour Density	No information available
Relative Density (Specific Gravity)	1.105 @ 21°C
Solubility in Water	39 mg/L
Partition coefficient: n-octanol/water	No information available
Auto-ignition Temperature	No information available



SAFETY DATA SHEET

Decomposition Temperature No information available
Viscosity No information available

10. STABILITY AND REACTIVITY

Chemical Stability Stable at ambient temperature and under normal conditions of use
Hazardous Polymerization Will not occur.
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. Extremely reactive with reducing agents and combustible materials.
Hazardous Decomposition Products None.

11. TOXICOLOGICAL INFORMATION

Acute Health Effects
Routes of Exposure Inhalation: Continuous inhalation of high concentrations of oxygen may cause chest tightness, burning pains and coughing. Other symptoms of hyperoxia include cramps, nausea, dizziness, and hypothermia, loss of vision, fainting spells and convulsions.
Ingestion: Ingestion is not a normal route of exposure for gases.
Eye: Non-irritating.
Skin: Non-irritating.
Non-irritating.

Skin
Corrosion/Irritation
Serious Eye Non-irritating.
Damage/Irritation
Respiratory or Skin Not expected to be a hazard.
Sensitisation
Germ Cell Not expected to be a hazard.
Mutagenicity
Carcinogenicity This product does NOT contain any IARC listed chemicals.
Reproductive Toxicity Not expected to be a hazard.
Specific Target Organ Not expected to be a hazard.
Toxicity (STOT) -
Single Exposure
Specific Target Organ Not expected to be a hazard.
Toxicity (STOT) -
Repeated Exposure
Aspiration Hazard Not expected to be a hazard.

Chronic Health Effects No information available.
Existing Conditions No information available.
Aggravated by
Exposure



SAFETY DATA SHEET

12. ECOLOGICAL INFORMATION

Ecotoxicity	No known toxicological effects from this product
Bioaccumulation, 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.

13. DISPOSAL CONSIDERATIONS

Disposal methods and containers	Dispose according to applicable local and state government regulations.
Special precautions for landfill or incineration	Please consult your state Land Waste Management Authority for more information.

14. TRANSPORT INFORMATION

Classified as a dangerous good according to the Australian Code for the Transport of Dangerous goods by road or rail.

UN Number	1072
Proper Shipping Name	OXYGEN, COMPRESSED
Dangerous Goods Class	2.2
Subsidiary Risk	5.1
Hazchem Code	2S
Packing Group	Not applicable
Special Provisions	Not applicable
Limited Quantities	0
Packagings & IBCs - Packing Instruction	P200
Packagings & IBCs - Special Packing Provisions	Not applicable
Portable Tanks & Bulk Containers – Instructions	Not applicable
Portable Tanks & Bulk Containers – Special Provisions	Not applicable

SEA TRANSPORT – IMDG

UN Number	1072
Proper Shipping Name	OXYGEN, COMPRESSED
Dangerous Goods Class	2.2
Subsidiary Risk	5.1
Packing Group	Not applicable
Marine Polutant	No
EMS Number	F-C, S-W

AIR TRANSPORT – ICAO / IATA

UN Number	1072
Proper Shipping Name	OXYGEN, COMPRESSED
Dangerous Goods Class	2.2
Subsidiary Risk	5.1
Packing Group	Not applicable



SAFETY DATA SHEET

15. REGULATORY INFORMATION

Oxygen is listed in the Australian Inventory of Chemical Substances (AICS).

16. OTHER INFORMATION

Last Revision of MSDS Rev 1.0 (07/08/2012)
Prepared by MSDS.COM.AU Pty Ltd www.msds.com.au

Abbreviations Used GHS – Globally Harmonised System of Classification and Labeling of Chemicals
IARC: International Agency for Research on Cancer
STEL: Short term exposure limit
TWA: Time weighted average

Emergency Contacts

Primus Australia Pty Ltd	61 3 9468 4400
Primus Australia Pty Ltd - Emergency Number	131126 (Poisons Information Centre)
Police and Fire Brigade	000
Poisons Information Centre	131126

The information contained in this material safety data sheet is provided in good faith and is believed to be accurate at the date of issuance. Primus Australia Pty Ltd makes no representation of the accuracy or comprehensiveness of the information and to the full extent allowed by law excludes all liability for any loss or damage related to the supply or use of the information in this material safety data sheet. MSDS.COM.AU Pty Ltd is not in a position to warrant the accuracy of the data herein. The user is cautioned to make their own determinations as to the suitability of the information provided to the particular circumstances in which the product is used.

This MSDS is prepared in accord with the Safe Work Australia document "National Code of Practice for the Preparation of Material Safety Data Sheets" 2nd Edition [NOHSC:2011(2003)]