



INTERNATIONAL INDUSTRIAL GASES LTD

Safety Data Sheet

COMPRESSED AIR

Material Safety Data Sheet

COMPRESSED AIR

Issue Date: 10-06-2026

Revision No: 01

Revision Date: 10-06-2026

Version: 01

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name: COMPRESSED AIR
Manufacturer's Registered Office: 146 Andul Road, Howrah - 711103, India
Manufacturer's Website: www.iigas.com · www.thegases.com
Telephone Number: (+91 033) 2668 4725

2. HAZARDS IDENTIFICATION

WARNING!

EMERGENCY OVERVIEW

Non-flammable, non-toxic compressed gas.

The principal hazards are the stored pressure and sudden release of pressure.

High pressure compressed gas.

Keep at temperatures below 52°C / 125°F.

Appearance / State / Odor: Colorless | Physical State: Compressed Gas | Odor: Odorless

POTENTIAL HEALTH EFFECTS:

Principal Routes of Exposure: Inhalation

Inhalation: Air is non-toxic and is the normal breathing atmosphere. No adverse health effects are expected from inhalation.

Eyes: High-velocity jets may injure the eye. Contact with rapidly expanding gas may cause frostbite.

Skin: High-velocity jets can penetrate or injure skin — never direct compressed air at the body.

Ingestion: None known.

Chronic Effects: None known.

Environmental Hazard: See Section 12 for additional Ecological Information.

3. COMPOSITION / INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Volume %	Chemical Formula
Nitrogen	7727-37-9	78.08	N2
Oxygen	7782-44-7	20.95	O2
Argon	7440-37-1	0.93	Ar

4. FIRST AID MEASURES

Eye Contact: For jet/pressure injury, get medical attention.

Skin Contact: For jet/pressure injury, get medical attention immediately — air injected under the skin is a medical emergency even if the wound looks minor.

Inhalation: Not applicable under normal use.

Ingestion: None under normal use.

Notes to Physician: Treat symptomatically.

5. FIRE-FIGHTING MEASURES

Flammable Properties: Non-flammable, but supports combustion (contains ~21% oxygen). Will not burn itself.

Suitable Extinguishing Media: Use extinguishing measures appropriate to local circumstances and the surrounding environment.

Specific Hazards: Cylinders may rupture under extreme heat. Continue to cool fire-exposed cylinders until flames are extinguished. Damaged cylinders should be handled only by specialists.

Protective Equipment for Firefighters: SCBA, pressure-demand, NIOSH approved or equivalent, and full protective gear.

6. ACCIDENTAL RELEASE MEASURES

No environmental hazard. Stop the flow of gas or remove the cylinder outdoors if this can be done without risk. Return cylinder to IIGAS.

7. HANDLING AND STORAGE

Handling

Never use compressed air to blow dust off clothing or skin, and never direct it at any person. Compressed air used for breathing applications must meet the relevant breathing-air specification.

Use only in well-ventilated areas. Never attempt to lift a cylinder by its valve protection cap. Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for a short distance, use a cart designed to transport cylinders. Use equipment rated for cylinder pressure. Use a backflow preventive device in the piping. Never insert an object (e.g., wrench, screwdriver, pry bar) into valve cap openings — doing so may damage the valve and cause a leak.

Close the valve after each use and when empty. If a user experiences any difficulty operating the cylinder valve, discontinue use and contact the supplier. Never put cylinders into trunks of cars or unventilated areas of passenger vehicles. Never attempt to refill a compressed gas cylinder without the owner's written consent. Never strike an arc on a compressed gas cylinder or make a cylinder part of an electrical circuit.

For additional recommendations consult rules 18 & 20 of the Gas Cylinder Rules, 2016.

Storage

Protect from physical damage. Cylinders should be stored upright with the valve protection cap in place and firmly secured to prevent falling. Store in a cool, dry, well-ventilated area of non-combustible construction away from high-traffic areas and emergency exits. Keep at temperatures below 52°C / 125°F.

Full and empty cylinders should be segregated. Use a "First-In-First-Out (FIFO)" inventory system to prevent full cylinders from being stored for excessive periods. Always store and handle compressed gas cylinders in accordance with rule 21 of the Gas Cylinder Rules, 2016.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines: None established — air is the normal breathing atmosphere.

Ventilation: General ventilation is adequate.

Eye/Face Protection: Safety glasses recommended when handling cylinders.

Skin and Body Protection: Work gloves and safety shoes are recommended when handling cylinders.

Respiratory Protection: Not required.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety practices.

9. PHYSICAL AND CHEMICAL PROPERTIES

Appearance	Colorless
Odor	Odorless
Physical State	Compressed gas
Molecular Weight	28.96 (average)
Boiling Point	-194.3 °C / -317.8 °F (liquid air)

Vapor Density	1.20 kg/m ³ (0.075 lb/ft ³) @ 21.1 °C
Specific Volume @ 21.1 °C & 1 atm	13.3 ft ³ /lb
Water Solubility	Slightly soluble
Flammability Limits in Air	Not applicable (non-flammable)

10. STABILITY AND REACTIVITY

Stability: Stable.

Incompatible Products: None known at normal pressure. At high pressure, treat oil and grease contamination with the same caution as oxygen service.

Conditions to Avoid: None known.

Hazardous Decomposition Products: None known.

Hazardous Polymerization: Does not occur.

11. TOXICOLOGICAL INFORMATION

Air is non-toxic. Contains no ingredient listed as a carcinogen.

12. ECOLOGICAL INFORMATION

Ecotoxicity: No ecological hazard.

13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods: Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container properly labelled, with any valve outlet plugs or caps secured and valve protection cap in place, to IIGAS for proper disposal.

14. TRANSPORT INFORMATION

DOT / ADR

Proper Shipping Name: Air, compressed

Hazard Class: 2.2

UN-Number: UN1002

Description: UN1002, Air, compressed, 2.2

Labels: 2.2 Non-flammable, non-toxic gas

15. REGULATORY INFORMATION

SARA 311/312 Hazard Categories

Acute Health Hazard: No **Chronic Health Hazard:** No **Fire Hazard:** No

Sudden Release of Pressure Hazard: Yes **Reactive Hazard:** No

Store, transport and handle in accordance with the Gas Cylinder Rules, 2016 and other applicable national / local regulations.

16. OTHER INFORMATION

General: Ensure all national / local regulations are observed.

DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

Although reasonable care has been taken in the preparation of this document, we extend no warranties and make no representations as to the accuracy or completeness of the information contained herein and assume no responsibility regarding the suitability of this information for the

user's intended purposes or for the consequences of its use. Each individual should decide as to the suitability of the information for their purpose(s). The information contained in this document only covers the hazards presented by this material; it does not constitute a workplace risk assessment.