

SAFETY DATA SHEET

SDS Number: 000A

AIR

1. PRODUCT AND COMPANY IDENTIFICATION

Product Name : Air
Chemical name : Air, mixture of nitrogen and oxygen (mixture of 19.5% - 23.0% oxygen, balance nitrogen, or Air compressed from the atmosphere)
Synonyms : Compressed Air, Synthetic Air, Zero Air, Instrument Air
Use of the substance/preparation : General Industrial
Manufacturer/Importer/Distributor : Air Products South Africa (Pty) Ltd.
Silver Stream Business Park, 1st Floor, Building 3,
10 Muswell Road South
Bryanston, 2191
Telephone : +27 (0)11 570 5000 (Head Office)
+27 (0)11 977 6444 (Customer Care Cylinders)
0800 023 298 (Engineering / Bulk Services)
Emergency telephone Number (24h) : 0800 650 315

2. COMPOSITION / INFORMATION ON INGREDIENTS

<u>Components</u>	<u>CAS Number</u>	<u>Concentration (Volume)</u>
Oxygen	7782-44-7	21 %
Nitrogen	7727-37-9	Balance %

or

<u>Components</u>	<u>CAS Number</u>	<u>Concentration (Volume)</u>
Air	132259-10-0	100 %

Concentration is nominal. For the exact product composition, please refer to Air Products technical specifications.

3. HAZARDS IDENTIFICATION

Main Hazard / Emergency Overview

High pressure gas.

Potential Health Effects

Inhalation : No adverse effect
Eye contact : No adverse effect.
Skin contact : No adverse effect.
Ingestion : Ingestion is not considered a potential route of exposure.
Chronic Health Hazard : Not applicable.
Aggravated Medical Condition : None.

Environmental Effects

Not harmful.

4. FIRST AID MEASURES

Eye contact : Not applicable.
Skin contact : Not applicable.
Ingestion : Ingestion is not considered a potential route of exposure.
Inhalation : Remove to fresh air.

5. FIRE-FIGHTING MEASURES

Suitable extinguishing media : All known extinguishing media can be used.
Specific hazards : Can support combustion. Upon exposure to intense heat or flame, cylinder will vent rapidly and or rupture violently. Move away from container and cool with water from a protected position. If possible, stop flow of product. Keep adjacent cylinders and surroundings cool by spraying with large amounts of water until the fire burns itself out.
Special protective equipment : Wear self contained breathing apparatus for fire fighting if necessary.

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6. ACCIDENTAL RELEASE MEASURES

- Personal precautions : Evacuate personnel to safe area.
Ventilate the area.
- Environmental precautions : Prevent further leakage or spillage if safe to do so.
- Methods for cleaning up : Ventilate the area.
- Additional advice : If possible, stop flow of product. If leak is from cylinder or cylinder valve, call the Air Products emergency telephone number. If the leak is in the user's system, close the cylinder valve, safely vent the pressure, before attempting repairs.
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7. HANDLING AND STORAGE

Handling

Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 50°C. Only experienced and properly instructed persons should handle compressed gases. Before using the product, determine its identity by reading the label. Know and understand the properties and hazards of the product before use. When doubt exists as to the correct handling procedure for a particular gas, contact the supplier. Do not remove or deface labels provided by the supplier for the identification of the cylinder contents. When moving cylinders, even for short distances, use a cart (trolley, hand truck, etc.) designed to transport cylinders. Do not remove valve guards. Before connecting the container, check the complete gas system for suitability, particularly for pressure rating and materials. Before connecting the container for use, ensure that back feed from the system into the container is prevented. Ensure the complete gas system is compatible for pressure rating and materials of construction. Ensure the complete gas system has been checked for leaks before use. Employ suitable pressure regulating devices on all containers when the gas is being emitted to systems with lower pressure rating than that of the container.

Open valve slowly. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Close container valve after each use and when empty, even if still connected to equipment. Never attempt to repair or modify container valves or safety relief devices. Damaged valves should be reported immediately to the supplier. Close valve after each use and when empty. Do not subject containers to abnormal mechanical shocks which may cause damage to their valve or safety devices. Never attempt to lift a cylinder by its valve guard. Do not use containers as rollers or supports or for any other purpose than to contain the gas as supplied. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit. Do not smoke while handling product or cylinders. Never re-compress a gas or a gas mixture without first consulting the supplier. Never attempt to transfer gases from one cylinder/container to another.

Always use backflow protective device in piping. Never use direct flame or electrical heating devices to raise the pressure of a container. Containers should not be subjected to temperatures above 50°C. Prolonged periods of cold temperature below -30°C should be avoided.

Storage

Full containers should be stored so that oldest stock is used first. Containers should be stored in a purpose built compound which should be well ventilated, preferably in the open air. Stored containers should be periodically checked for general condition and leakage. Observe all regulations and local requirements regarding storage of containers. Protect containers stored in the open against rusting and extremes of weather. Containers should not be stored in conditions likely to encourage corrosion. Containers should be stored in the vertical position and properly secured to prevent toppling. The container valves should be tightly closed and where appropriate valve outlets should be capped or plugged. Container valve guards or caps should be in place. Keep containers tightly closed in a cool, well-ventilated place. Store containers in location free from fire risk and away from sources of heat and ignition. Full and empty cylinders should be segregated. Do not allow storage temperature to exceed 50°C. Return empty containers in a timely manner.

Technical measures/Precautions

Containers should be segregated in the storage area according to the various categories (e.g. flammable, toxic, etc.) and in accordance with local regulations. Keep away from combustible material.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

- Hand protection : Sturdy work gloves are recommended for handling cylinders.
The breakthrough time of the selected glove(s) must be greater than the intended use period.
- Eye protection : Safety glasses recommended when handling cylinders.
- Skin and body protection : Safety shoes are recommended when handling cylinders.
- Special instructions for protection and hygiene : Ensure adequate ventilation, especially in confined areas.

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9. PHYSICAL AND CHEMICAL PROPERTIES

Form	: Compressed gas.
Color	: Colorless gas
Odor	: No odor warning properties.
Molecular Weight	: 28.96 g/mol
Relative vapor density	: 1 (air = 1)
Vapor pressure	: Not applicable.
Density	: 0.0013 g/cm ³ at 21 °C Note: (as vapor)
Specific Volume	: 0.7710 m ³ /kg at 21 °C
Boiling point/range	: -194.3 °C
Critical temperature	: -141 °C
Melting point/range	: -213 °C
Water solubility	: Not known, but considered to have low solubility.

10. STABILITY AND REACTIVITY

Stability	: Stable under normal conditions.
Hazardous decomposition products	: No data available.

11. TOXICOLOGICAL INFORMATION

Acute Health Hazard

Ingestion	: No data is available on the product itself.
Inhalation	: No data is available on the product itself.
Skin	: No data is available on the product itself.

12. ECOLOGICAL INFORMATION

Ecotoxicity effects

Aquatic toxicity	: No data is available on the product itself.
Toxicity to other organisms	: No data available on the product itself.

Persistence and degradability

Mobility	: No data available.
Bioaccumulation	: No data is available on the product itself.

Further information

No ecological damage caused by this product.

13. DISPOSAL CONSIDERATIONS

Waste from residues / unused products	: Contact supplier if guidance is required. Return unused product in original cylinder to supplier.
Contaminated packaging	: Return cylinder to supplier.

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14. TRANSPORT INFORMATION

ADR

Proper shipping name : AIR, COMPRESSED
Class : 2.2
UN/ID No. : UN1002
Class : 2
ADR/RID Hazard ID no. : 20

IATA

Proper shipping name : Air, compressed
Class : 2.2
UN/ID No. : UN1002

IMDG

Proper shipping name : AIR, COMPRESSED
Class : 2.2
UN/ID No. : UN1002

RID

Proper shipping name : AIR, COMPRESSED
Class : 2.2
UN/ID No. : UN1002

Further Information

Avoid transport on vehicles where the load space is not separated from the driver's compartment. Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency. The transportation information is not intended to convey all specific regulatory data relating to this material. For complete transportation information, contact an Air Products customer service representative.

15. REGULATORY INFORMATION

OHS Act : Occupational Health and Safety Act 85 of 1993 (and Regulations)
SANS 10265 : The classification and labelling of dangerous substances and preparations for sale and handling
SANS 10019 : Transportable containers for compressed, dissolved and liquefied gases – Basic design, manufacture, use and maintenance
SANS 1518 : Transport of dangerous goods – Design, construction, testing, approval and maintenance of road vehicles and portable tanks
SANS 10228 : The identification and classification of dangerous goods for transport
SANS 10229-1&2 : Transport of dangerous goods – Packaging and large packaging for road and rail transport Part 1: Packaging / Part 2: Large Packaging
SANS 10263-2 : The warehousing of dangerous goods Part 2: The storage and handling of gas cylinders

NB: Refer to latest edition

16. OTHER INFORMATION

R-phrase(s) : Not a hazardous substance in accordance with SANS 10265:1999

Ensure all national/local regulations are observed.

Details given in this document are believed to be correct at the time of going to press. Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

(Reference www.airproducts.com):- Air Products PLC Air
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