

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

1. PRODUCT AND COMPANY IDENTIFICATION

Product name : SYNTHETIC AIR

Product Use Description : General Industrial.

Manufacturer/Importer/Distributor : Air Products and Chemicals, Inc
1940 Air Products Boulevard
Allentown, PA 18106-5500
GST No. 123600835 RT0001
QST No. 102753981 TQ0001

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Emergency telephone number (24h) : 800-523-9374 USA
+1 610 481 7711 International

2. HAZARDS IDENTIFICATION

GHS classification

Gases under pressure - Compressed gas.

GHS label elements

Hazard pictograms/symbols



Signal Word: Warning

Hazard Statements:

H280:Contains gas under pressure; may explode if heated.

Precautionary Statements:

Storage : P410+P403:Protect from sunlight. Store in a well-ventilated place.

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

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Other hazards not contributing to the classification

High pressure gas.

3. COMPOSITION/INFORMATION ON INGREDIENTS

Components	CAS Number	Concentration (Volume)
Oxygen	7782-44-7	20.9 %
Nitrogen	7727-37-9	79.1 %

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

4. FIRST AID MEASURES

- Eye contact : In case of direct contact with eyes, seek medical advice.
- Skin contact : Adverse effects not expected from this product.
- Ingestion : Ingestion is not considered a potential route of exposure.
- Inhalation : Adverse effects not expected from this product.
- Inhalation : No data available.

Immediate Medical Attention and Special Treatment

- Treatment : If exposed or concerned: Get medical attention/advice.

5. FIRE-FIGHTING MEASURES

- Suitable extinguishing media : The product itself does not burn.
Use extinguishing media appropriate for surrounding fire.
- 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 cool by spraying with large amounts of water until the fire burns itself out. Most cylinders are designed to vent contents when exposed to elevated temperatures.
- Special protective equipment for fire-fighters : Wear self contained breathing apparatus for fire fighting if necessary.

6. ACCIDENTAL RELEASE MEASURES

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

Personal Precautions, Protective Equipment, and Emergency Procedures	: 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 emergency telephone number. If the leak is in the user's system, close the cylinder valve and safely vent the pressure before attempting repairs.

7. HANDLING AND STORAGE

Handling

Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling or being knocked over. Use equipment rated for cylinder pressure. Protect cylinders from physical damage; do not drag, roll, slide or drop. Do not allow storage area temperature to exceed 50°C (122°F). Only experienced and properly instructed persons should handle compressed gases/cryogenic liquids. 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. 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. Use an adjustable strap wrench to remove over-tight or rusted caps. 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. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing a leak to occur. 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. Replace outlet caps or plugs and container caps as soon as container is disconnected from equipment. Do not subject containers to abnormal mechanical shock. Never attempt to lift a cylinder by its valve protection cap or 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. When returning cylinder install valve outlet cap or plug leak tight. 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 (122°F).

Storage

Open/close valve slowly. Close when not in use. Wear Safety Eye Protection. Check Safety Data Sheet before use. Containers should be stored in a purpose build compound which should be well ventilated, preferably in the open air. Full containers should be stored so that oldest stock is used first. Observe all regulations and local requirements regarding storage of containers. Protect containers stored in the open against rusting and

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

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 (122°F). 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.

8. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protective equipment

- | | |
|--------------------------|---|
| Respiratory protection | : Not required for properly ventilated areas. |
| Hand protection | : Wear work gloves when handling gas containers.
Chemical-resistant, impervious gloves complying with an approved standard should be worn at all times when handling chemical products if a risk assessment indicates this is necessary. |
| Eye protection | : Safety glasses recommended when handling cylinders. |
| Skin and body protection | : Safety shoes are recommended when handling cylinders. |

9. PHYSICAL AND CHEMICAL PROPERTIES

- | | |
|---------------------------|--|
| Appearance | : Compressed gas. Colorless gas |
| Odor | : Mixture contains one or more component(s) which have the following odor: No odor warning properties. |
| Odor threshold | : No data available. |
| pH | : Not applicable. |
| Melting point/range | : No data available. |
| Boiling point/range | : -313 °F (-191.5 °C) |
| Flash point | : Not applicable. |
| Evaporation rate | : Not applicable. |
| Flammability (solid, gas) | : Refer to product classification in Section 2 |

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

Upper/lower explosion/flammability limit	: No data available.
Vapor pressure	: No data available.
Water solubility	: Not known, but considered to have low solubility.
Relative vapor density	: No data available.
Relative density	: 1.6056 (water = 1)
Relative density	: 0.9958 (air = 1) Lighter or similar to air.
Partition coefficient: n-octanol/water [log Kow]	: Not applicable.
Auto-ignition temperature	: No data available.
Decomposition temperature	: No data available.
Viscosity	: Not applicable.
Molecular Weight	: 28.84 g/mol
Density	: 0.075 lb/ft ³ (0.0012 g/cm ³) Note: (as vapor)
Specific Volume	: 213.87 ft ³ /lb (13.35 m ³ /kg)

10. STABILITY AND REACTIVITY

Chemical Stability	: Stable under normal conditions.
Conditions to avoid	: No data available.
Materials to avoid	: No data available.
Hazardous decomposition products	: Under normal conditions of storage and use, hazardous decomposition products should not be produced.
Possibility of hazardous Reactions/Reactivity	: No data available.

11. TOXICOLOGICAL INFORMATION

11.1. Information on toxicological effects

Likely routes of exposure

Effects on Eye	: In case of direct contact with eyes, seek medical advice.
Effects on Skin	: Adverse effects not expected from this product.

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

Inhalation Effects : No adverse effect.

Ingestion Effects : Ingestion is not considered a potential route of exposure.

Symptoms : No data available.

Acute toxicity

Acute Oral Toxicity : No data is available on the product itself.

Inhalation : No data is available on the product itself.

Acute Dermal Toxicity : No data is available on the product itself.

Skin corrosion/irritation : No data available.

Serious eye damage/eye irritation : No data available.

Sensitization. : No data available.

Chronic toxicity or effects from long term exposures

Carcinogenicity : No data available.

Reproductive toxicity : No data is available on the product itself.

Germ cell mutagenicity : No data is available on the product itself.

Specific target organ systemic toxicity (single exposure) : No data available.

Specific target organ systemic toxicity (repeated exposure) : No data available.

Aspiration hazard : No data available.

Delayed and Immediate Effects and Chronic Effects from Short and Long Term Exposure

This product contains no listed carcinogens according to IARC, ACGIH, NTP and/or OSHA in concentrations of 0.1 percent or greater. None.

12. ECOLOGICAL INFORMATION

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

Ecotoxicity effects

Aquatic toxicity : No data is available on the product itself.

Toxicity to other organisms : No data available.

Persistence and degradability

Biodegradability : No data is available on the product itself.

Mobility : Because of its high volatility, the product is unlikely to cause ground pollution.

Bioaccumulation : Refer to Section 9 "Partition Coefficient (n-octanol/water)".

Further information

This product has no known eco-toxicological effects.

13. DISPOSAL CONSIDERATIONS

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

Contaminated packaging : Return cylinder to supplier.

14. TRANSPORT INFORMATION

DOT

UN/ID No. : UN1956
Proper shipping name : Compressed gas, n.o.s., (Nitrogen, Oxygen)
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IATA

UN/ID No. : UN1956
Proper shipping name : Compressed gas, n.o.s., (Nitrogen, Oxygen)
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

IMDG

UN/ID No. : UN1956
Proper shipping name : COMPRESSED GAS, N.O.S., (Nitrogen, Oxygen)
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

Safety Data Sheet

Version 1.3

Revision Date 03/29/2021

SDS Number 300000003109

Print Date 03/05/2022

TDG

UN/ID No. : UN1956
Proper shipping name : COMPRESSED GAS, N.O.S., (Nitrogen, Oxygen)
Class or Division : 2.2
Label(s) : 2.2
Marine Pollutant : No

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 customer service.

15. REGULATORY INFORMATION

Toxic Substance Control Act (TSCA) 12(b) Component(s):

None.

Country	Regulatory list	Notification
USA	TSCA	Included on Inventory.
EU	EINECS	Included on Inventory.
Canada	DSL	Included on Inventory.
Australia	AICS	Included on Inventory.
South Korea	ECL	Included on Inventory.
China	SEPA	Included on Inventory.
Philippines	PICCS	Included on Inventory.
Japan	ENCS	Included on Inventory.

EPA SARA Title III Section 313 (40 CFR 372) Component(s) above 'de minimus' level

None.

US. California Safe Drinking Water & Toxic Enforcement Act (Proposition 65)

This product does not contain any chemicals known to State of California to cause cancer, birth defects or any other harm.

16. OTHER INFORMATION

NFPA Rating

Health : 0
Fire : 0

Safety Data Sheet

Version 1.3

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Instability : 0
Special :

Prepared by : Air Products and Chemicals, Inc. Global EH&S Department

Telephone : 1-610-481-4911 Corporate
1-800-224-2724 CSO

Preparation Date : 03/05/2022

For additional information, please visit our Product Stewardship web site at
<http://www.airproducts.com/productstewardship/>
