



# Argon, Compressed

## Safety Data Sheet

### SECTION 1: Identification of the substance/mixture and of the company/undertaking

#### Product identifier

Product Name Argon, Compressed

#### Other means of identification

Safety data sheet number SDS-YO-003

UN/ID no. UN1006

Trade name Argon Grade 4.5, Argon HP Grade 4.8, Argon Grade 5.0

#### Recommended use of the chemical and restrictions on use

Recommended Use Industrial and professional use. Welding

Uses advised against Consumer use

#### Details of the supplier of the safety data sheet

Yateem Oxygen W.L.L

P.O. Box 60, Manama, Bahrain

Email: [wecare@yateemoxygen.com](mailto:wecare@yateemoxygen.com)

Website: [www.yateemoxygen.com](http://www.yateemoxygen.com)

Customer Service: +973 17400677

#### Emergency telephone number

Company Phone Number +973 17400456

Emergency Contact Number +973 17456248; +973 17400675

### SECTION 2: Hazards identification

#### Classification

OSHA Regulatory Status

This chemical is considered hazardous by the 2012 OSHA Hazard Communication Standard (29 CFR 1910.1200).

Gasses under pressure	Compressed Gas
Simple asphyxiants	Yes

#### Label elements

Signal word Warning

#### Hazard Statements

Contains gas under pressure; may explode if heated

May displace oxygen and cause rapid suffocation



#### Precautionary Statements – Prevention

Do not handle until all safety precautions have been read and understood

Use and store only outdoors or in a well-ventilated place

Use a backflow preventive device in piping

Use only with equipment rated for cylinder pressure

Close valve after each use and when empty

#### Precautionary Statements – Response:

IF INHALED: Remove person to fresh air and keep comfortable for breathing.

Get medical attention/advice.

**Precautionary Statements – Storage:** Protect from sunlight when ambient temperature exceeds 52°C/125°F

#### Hazards not otherwise classified (HNOC)

Not applicable

### SECTION 3: Composition/information on ingredients

Chemical Name	CAS No.	Volume %	Chemical Formula
ARGON	7440-37-1	>99	Ar

### SECTION 4: First aid measures

#### Description of first aid measures

<b>General advice</b>	Show this safety data sheet to the doctor in attendance.
<b>Inhalation</b>	Remove to fresh air and keep comfortable for breathing. If breathing is difficult, give oxygen. If breathing has stopped, give artificial respiration. Get medical attention immediately
<b>Skin contact</b>	None under normal use. Get medical attention if symptoms occur.
<b>Eye contact</b>	None under normal use. Get medical attention if symptoms occur.
<b>Ingestion</b>	Not an expected route of exposure

#### Most important symptoms and effects, both acute and delayed

<b>Symptoms</b>	Simple asphyxiant. May cause suffocation by displacing the oxygen in the air. Exposure to oxygen-deficient atmosphere (<19.5%) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death
<b>Self-protection of the first aider</b>	Rescue personnel should be equipped with SELF-CONTAINED BREATHING APPARATUS.

#### In Indication of any immediate medical attention and special treatment needed

<b>Note to physicians</b>	Treat symptomatically.
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### SECTION 5: Firefighting measures

#### Suitable extinguishing media

Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

Unsuitable extinguishing media      None

#### Specific extinguishing methods

Continue to cool fire exposed cylinders until flames are extinguished. Damaged cylinders should be handled only by specialists.

#### Specific hazards arising from the chemical

Non-flammable gas. Cylinders may rupture under extreme heat.

#### Protective equipment and precautions for firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved or equivalent) and full protective gear.

### SECTION 6: Accidental release measures

#### Personal precautions, protective equipment and emergency procedures

<b>Personal precautions</b>	Evacuate personnel to safe areas. Ensure adequate ventilation, especially in confined areas. Monitor oxygen level. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe
<b>Other information</b>	Gas/vapor is heavier than air. Prevent from entering sewers, basements and work pits, or any place where accumulation may be dangerous

#### Environmental precautions

**Environmental precautions**      Prevent spreading of vapors through sewers, ventilation systems and confined areas.

## Methods and material for containment and cleaning up

**Methods for containment** Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. If leak is in container or container valve, contact the appropriate emergency telephone number in Section 1 or call your closest Yateem Oxygen location. DO NOT ATTEMPT TO REMOVE CYLINDERS THAT HAVE BEEN EXPOSED TO HEAT.

**Methods for cleaning up** Return cylinder to Yateem Oxygen

## **SECTION 7. Handling and Storage**

### Precautions for safe handling

#### **Advice on safe handling**

Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distance, use a cart designed to transport cylinders. Never attempt to lift a cylinder by its valve protection cap. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing leak to occur. Use an adjustable strap wrench to remove over-tight or rusted caps. Use only with adequate ventilation. Use a backflow preventive device in piping. Use only with equipment rated for cylinder pressure. Close valve after each use and when empty. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier. Ensure the complete gas system has been checked for leaks before use.

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 a part of an electrical circuit.

Only experienced and properly instructed persons should handle gases under pressure. Always store and handle compressed gas cylinders in accordance with Compressed Gas Association, pamphlet CGA-P1, Safe Handling of Compressed Gases in Containers.

For additional recommendations, consult Compressed Gas Association's Pamphlets SB-7, G-4.3, G-4.1, G-4.4, P-2.5, G-4.9, P-14, and SB-2

### Conditions for safe storage, including any incompatibilities

**Storage Conditions** Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Keep at temperatures below 52°C / 125°F. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Full and empty cylinders should be segregated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Stored containers should be periodically checked for general condition and leakage

**Incompatible materials** None known

## **SECTION 8: Exposure controls/personal protection**

### Control parameters

Chemical Name	ACGIH TLV	OSHA PEL	NIOSH IDLH
ARGON 7440-37-1	See Appendix F. Minimal Oxygen Content	None	None

### Appropriate Engineering Controls

**Engineering Controls** Local exhaust ventilation to prevent accumulation of high concentrations and maintain air-oxygen levels at or above 19.5%. Oxygen detectors should be used when asphyxiating gases may be released. Systems under pressure should be regularly checked for leakages.

### Individual protection measures, such as personal protective equipment

**Eye/face protection** Wear safety glasses with side shields (or goggles). EN 166 - Personal eye-protection

<b>Skin and body protection</b>	Work gloves and safety shoes are recommended when handling cylinders.
<b>Respiratory protection</b>	Not required on normal use. Use positive pressure airline respirator with escape cylinder or self-contained breathing apparatus for oxygen-deficient atmospheres (<19.5%).
<b>General Hygiene Considerations</b>	Handle in accordance with good industrial hygiene and safety practice.

## SECTION 9: Physical and chemical properties

### Information on basic physical and chemical properties

<b>Physical state</b>	Gas
<b>Appearance</b>	Colorless.
<b>Odor</b>	Odorless
<b>Odor threshold</b>	No information available
<b>pH</b>	Not applicable
<b>Melting/freezing point</b>	-189.4 °C / -308.9 °F
<b>Evaporation rate</b>	Not applicable
<b>Flammability (solid, gas)</b>	Non-Flammable gas
<b>Lower flammability limit:</b>	Not applicable
<b>Upper flammability limit:</b>	Not applicable
<b>Flash point</b>	Not applicable
<b>Autoignition temperature</b>	No data available
<b>Decomposition temperature</b>	No data available
<b>Water solubility</b>	Slightly soluble
<b>Partition coefficient</b>	No data available
<b>Kinematic viscosity</b>	Not applicable

Chemical Name	Molecular weight	Boiling point / range	Vapor Pressure	Vapor density (air =1)	Gas Density kg/m <sup>3</sup> @20°C	Critical Temperature
ARGON	39.94	-185.9 °C	Above critical temperature	1.38	1.65	-122.3 °C

## SECTION 10: Stability and Reactivity

### Reactivity

Not reactive under normal conditions

### Chemical stability

Stable under normal conditions.

### Explosion data

<b>Sensitivity to Mechanical Impact</b>	None
<b>Sensitivity to Static Discharge</b>	None

### Possibility of Hazardous Reactions

None under normal processing.

### Conditions to avoid

None under recommended storage and handling conditions (see Section 7).

### Incompatible materials

None known.

### Hazardous Decomposition Products

None known.

## SECTION 11: Toxicological Information

### Information on likely routes of exposure

<b>Inhalation</b>	Product is a simple asphyxiant
<b>Skin contact</b>	No data available
<b>Eye contact</b>	No data available
<b>Ingestion</b>	Not an expected route of exposure.

### Information on toxicological effects

<b>Symptoms</b>	Simple asphyxiant. May cause suffocation by displacing the oxygen in the air. Exposure to oxygen-deficient atmosphere ( $\leq 19.5\%$ ) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.
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### Delayed and immediate effects as well as chronic effects from short and long-term exposure

<b>Irritation</b>	Not classified.
<b>Sensitization</b>	Not classified.
<b>Germ cell mutagenicity</b>	Not classified.
<b>Carcinogenicity</b>	It does not contain any carcinogens or potential carcinogens listed by OSHA, IARC or NTP.
<b>Reproductive toxicity</b>	Not classified.
<b>Developmental Toxicity</b>	Not classified.
<b>STOT - single exposure</b>	Not classified.
<b>STOT - repeated exposure</b>	Not classified.
<b>Chronic toxicity</b>	None known
<b>Aspiration hazard</b>	Not applicable.
<b><u>Numerical measures of toxicity</u></b>	
ORAL LD50	No information available
Dermal LD50	No information available
Inhalation LC50	No information available

## SECTION 12: Ecological Information

### Ecotoxicity

No known acute aquatic toxicity.

### Persistence and degradability

Not applicable.

### Bioaccumulation

No information available

## SECTION 13. Disposal Considerations

### Waste treatment methods

<b>Disposal of wastes</b>	Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROPERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE to YATEEM OXYGEN for proper disposal. This material, as supplied, is a hazardous waste according to federal regulations (40 CFR 261).
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## SECTION 14. Transportation Information

### DOT

UN/ID no. UN1006  
Proper shipping name Argon, compressed  
Hazard Class 2.2  
Subsidiary class 5.1  
Special Provisions A14,110  
Description UN1006, Argon, compressed, 2.2  
Emergency Response Guide Number 121

### TDG

UN/ID no. UN1006  
Proper shipping name Argon, compressed  
Hazard Class 2.2  
Description UN1006, Argon, compressed, 2.2

### IATA

UN/ID no. UN1006  
Proper shipping name Argon, compressed  
Hazard Class 2.2  
ERG Code 2L  
Special provisions A69  
Description UN1006, Argon, compressed, 2.2

### IMDG

UN/ID no. UN1006  
Proper shipping name Argon, compressed  
Hazard Class 2.2  
EmS-No. F-C, S-V  
Description UN1006, Argon, compressed, 2.2

## SECTION 15. Regulatory Information

National Legislation Complies  
SEC <https://www.sce.gov.bh/en/index>  
MTT <http://www.transportation.gov.bh/content/caa-laws-and-regulations>  
OHSC <http://www.scosh.org/en/legislation/legislations#legislationContainer>

International Inventories

**TSC** :Complies      **DSL/NDSL** :Complies      **EINECS/ELINCS** :Complies

### Legend

TSCA - United States Toxic Substances Control Act Section 8(b) Inventory

DSL/NDSL - Canadian Domestic Substances List/Non-Domestic Substances List

EINECS/ELINCS - European Inventory of Existing Chemical Substances/European List of Notified Chemical Substances

SEC – Specific Council of Environment

MTT – Ministry of Transport and Telecommunications;

OHSC - Occupational Health and Safety Council

## SECTION 16: Other Information

**NFPA**      **Health hazards** 0      **Flammability** 0      **Instability** 0      **Physical and Chemical Properties**  
Simple asphyxiant

**Note:** Ratings were assigned in accordance with Compressed Gas Association (CGA) guidelines as published in CGA Pamphlet P-19-2009, CGA Recommended Hazard Ratings for Compressed Gases, 3rd Edition.

Issue Date 31-Aug-2020  
Revision Date 08 Aug 2020  
Revision Note: SDS sections updated; 1, 6, 13 and 15  
Safety Data sheet Number SDS-YO-003

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**End of Safety Data Sheet**