

# ARGON Safety Data Sheet

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# 1. IDENTIFICATION

Product identifier

Product Name ARGON

Other means of identification

Safety data sheet number IOC-P005 UN/ID no. UN1006

Synonyms Argon, Gas; LASER Argon; Argon, Compressed

Recommended use of the chemical and restrictions on use

Recommended Use Industrial and professional use.

Uses advised against Consumer use

# Details of the supplier of the safety data sheet

Indiana Oxygen Company 6099 W. Corporate Way Indianapolis, IN 46278 Phone: 317-290-0003 www.indianaoxygen.com

For additional product information contact your local customer service.

Emergency telephone number

Company Phone Number 1-800-535-5053 (Infotrak)

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<sup>\*</sup> May include subsidiaries or affiliate companies/divisions.

# 2. HAZARDS IDENTIFICATION

## Classification

**OSHA Regulatory Status** 

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

Gases 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 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

# 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	Volume %	Chemical Formula
Argon	7440-37-1	100	Ar

## 4. FIRST AID MEASURES

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Description of first aid measures

General advice Show this safety data sheet to the doctor in attendance.

Inhalation 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.

Skin contact None under normal use. Get medical attention if symptoms occur.

Eye contact None under normal use. Get medical attention if symptoms occur.

Ingestion Not an expected route of exposure.

Self-protection of the first aider RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS.

Most important symptoms and effects, both acute and delayed

Symptoms 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.

Indication of any immediate medical attention and special treatment needed

## 5. FIRE-FIGHTING MEASURES

#### Suitable extinguishing media

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

#### 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, MSHA/NIOSH (approved or equivalent) and full protective gear.

# 6. ACCIDENTAL RELEASE MEASURES

Personal precautions, protective equipment and emergency procedures

Personal precautions 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.

**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

Indiana Oxygen location.

Methods for cleaning up Return cylinder to Indiana Oxygen or an authorized distributor.

# 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 only with equipment rated for cylinder pressure. Use backflow preventive device in piping. 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 (CGA) Safety Bulletin SB-2, Oxygen-Deficient Atmospheres.

## 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  $52^{\circ}$ C /  $125^{\circ}$ F. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Full and empty cylinders should be segregrated. 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.

## 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters

Exposure Guidelines This product, as supplied, does not contain any hazardous materials with occupational exposure

limits established by the region specific regulatory bodies.

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).

Skin and body protection Work gloves and safety shoes are recommended when handling cylinders.

Respiratory protection Use positive pressure airline respirator with escape cylinder or self contained breathing apparatus

for oxygen-deficient atmospheres (<19.5%).

General Hygiene Considerations Handle in accordance with good industrial hygiene and safety practice.

# 9. PHYSICAL AND CHEMICAL PROPERTIES

## Information on basic physical and chemical properties

Physical state Compressed gas Colorless. **Appearance** Odor Odorless. Odor threshold Not applicable Hq No data available -189.4 °C / -308.9 °F Melting point Evaporation rate Not applicable Lower flammability limit: Not applicable Upper flammability limit: Not applicable Flash point Not applicable No data available

Upper Hammability limit:
Flash point
Not applicable
Autoignition temperature
No data available
Decomposition temperature
No data available
Water solubility
Partition coefficient
Kinematic viscosity
Not applicable

Chemical Name	Molecular weight	Boiling point	Vapor Pressure	Vapor density (air	Gas Density	Critical
				=1)	Kg/m³@20°C	Temperature
Argon	39.95	-185.9 °C	Above critical	1.38	1.65	-122.3 °C
			temperature			

## 10. STABILITY AND REACTIVITY

#### Reactivity

Not reactive under normal conditions.

#### Chemical stability

Stable under normal conditions.

# Explosion data

Sensitivity to Mechanical Impact
Sensitivity to Static Discharge
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.

# 11. TOXICOLOGICAL INFORMATION

## Information on likely routes of exposure

Inhalation Product is a simple asphyxiant.

Skin contact No data available.

Eye contact No data available.

Ingestion Not an expected route of exposure.

Information on toxicological effects

Symptoms No information available.

Delayed and immediate effects as well as chronic effects from short and long-term exposure

IrritationNot classified.SensitizationNot classified.Germ cell mutagenicityNot classified.

Carcinogenicity This product does not contain any carcinogens or potential carcinogens listed by OSHA, IARC or NTP.

Reproductive toxicity
STOT - single exposure
STOT - repeated exposure
Chronic toxicity
Target Organ Effects
Not classified.
None known.
None known.
None known.
Not applicable.

## Numerical measures of toxicity

**Product Information** 

Oral LD50 No information available
Dermal LD50 No information available
Inhalation LC50 No information available
Inhalation LC50 No information available.

# 12. ECOLOGICAL INFORMATION

**Ecotoxicity** 

No known acute aquatic toxicity.

Persistence and degradability

Not applicable.

Bioaccumulation

No information available.

## 13. DISPOSAL CONSIDERATIONS

Waste treatment methods

Disposal of wastes 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 Indiana Oxygen

Company for proper disposal.

# 14. TRANSPORT INFORMATION

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DOT

UN/ID no. UN1006

Proper shipping name Argon, compressed

Hazard Class 2.2

Description 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

**MEX** 

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

<u>IMDG</u>

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

<u>ADR</u>

UN/ID no. UN1006

Proper shipping name Argon, compressed

Hazard Class
Classification code
1A
Tunnel restriction code
(E)

Description UN1006, Argon, compressed, 2.2, (E)

# 15. REGULATORY INFORMATION

International Inventories

TSCA Complies
DSL 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

**US Federal Regulations** 

#### **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

## SARA 311/312 Hazard Categories

Acute Health HazardNoChronic Health HazardNoFire HazardNoSudden release of pressure hazardYesReactive HazardNo

#### **CERCLA**

This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act (CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act (SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

## Clean Air Act, Section 112 Hazardous Air Pollutants (HAPs) (see 40 CFR 61)

This product does not contain any substances regulated as hazardous air pollutants (HAPS) under Section 112 of the Clean Air Act Amendments of 1990.

#### CWA (Clean Water Act)

This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act (40 CFR 122.21 and 40 CFR 122.42).

#### Risk and Process Safety Management Programs

This material, as supplied, does not contain any regulated substances with specified thresholds under 40 CFR Part 68. This product does not contain any substances regulated as Highly Hazardous Chemicals pursuant to the 29 CFR Part 1910.110.

# **US State Regulations**

## California Proposition 65

This product does not contain any Proposition 65 chemicals

#### U.S. State Right-to-Know Regulations

Chemical Name	New Jersey	Massachusetts	Pennsylvania
Argon	X	X	X
7440-37-1			

## **International Regulations**

# **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 17-Feb-2015 Revision Date 13-May-2015

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**Revision Note** 

Initial Release.

# **General Disclaimer**

For terms and conditions, including limitation of liability, please refer to the purchase agreement in effect between Indiana Oxygen Company(or any of their affiliates and subsidiaries) and the purchaser.

# DISCLAIMER OF EXPRESSED AND IMPLIED WARRANTIES

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End of Safety Data Sheet