



# Safety Data Sheet

95% Argon 5% Oxygen

## Section 1: Product and Company Identification

**Purity Cylinder Gases, Inc.**

2580 28th St SW  
Wyoming, MI 49519  
P: (616)532-2375  
www.puritygas.com

Product Code: 95% Argon 5% Oxygen

**Synonyms:**

**Recommended Use:** Industrial and professional uses.

**Usage Restrictions:**

## Section 2: Hazards Identification



**Warning**

**Hazard Classification:**

Gases Under Pressure

**Hazard Statements:**

Contains gas under pressure; may explode if heated

**Precautionary Statements**

**Storage:**

Protect from sunlight.  
Store in well-ventilated place.

## Section 3: Composition/Information on Ingredients

|        | CAS #     | Concentration |
|--------|-----------|---------------|
| Argon  | 7440-37-1 | 95            |
| Oxygen | 7782-44-7 | 5             |

|               | Chemical Substance     | Chemical Family | Trade Names   |
|---------------|------------------------|-----------------|---|
| <b>Argon</b>  | ARGON, COMPRESSED      | Inorganic gases | ARGON; UN 1006; AR  |
| <b>Oxygen</b> | OXYGEN, COMPRESSED GAS | Inorganic gases | OXYGEN; DIOXYGEN; MOLECULAR OXYGEN; OXYGEN MOLECULE; PURE OXYGEN; UN 1072; O2 |

## Section 4: First Aid Measures

|               | Skin Contact                     | Eye Contact                      | Ingestion                        | Inhalation   | Note to Physicians               |
|---------------|----------------------------------|----------------------------------|----------------------------------|--|----------------------------------|
| <b>Argon</b>  | Not applicable route of exposure | Flush eyes with plenty of water. | Not applicable route of exposure | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. If breathing is difficult, oxygen should be administered by qualified personnel. Get immediate medical attention. | For inhalation, consider oxygen. |
| <b>Oxygen</b> | None expected                    | None expected                    | Not likely route of exposure     | If adverse effects occur, remove to uncontaminated area. Give artificial respiration if not breathing. Get immediate medical attention.  | None                             |

## Section 5: Fire Fighting Measures

|               | Suitable Extinguishing Media  | Products of Combustion     | Protection of Firefighters   |
|---------------|---|----------------------------|--|
| <b>Argon</b>  | Non-flammable gas   | Not applicable             | <ul style="list-style-type: none"> <li>▪ N/A</li> <li>▪ N/A</li> </ul>   |
| <b>Oxygen</b> | Non-flammable. Use extinguishing agent appropriate for the material which is burning. Use water in large quantities for fires involving oxygen. | Oxides of burning material | <ul style="list-style-type: none"> <li>▪ Respiratory protection may be needed for frequent or heavy exposure.</li> <li>▪ None</li> </ul> |

## Section 6: Accidental Release Measures

|               | Personal Precautions   | Environmental Precautions                 | Methods for Containment                      |
|---------------|--|---|--|
| <b>Argon</b>  | Keep unnecessary people away, isolate hazard area and deny entry. Stay upwind and keep out of low areas.   | None known.                               | Stop leak if possible without personal risk. |
| <b>Oxygen</b> | Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering. | Avoid contact with combustible materials. | Stop leak if possible without personal risk. |

|               | Methods for Cleanup                              | Other Information |
|---------------|--|-------------------|
| <b>Argon</b>  | Leaks may be detected by a soapy-water solution. |                   |
| <b>Oxygen</b> | Stop leak and ventilate                          | None              |

## Section 7: Handling and Storage

|               | Handling   | Storage                                      |
|---------------|--|--|
| <b>Argon</b>  | Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101. Keep separated from incompatible substances. | Avoid using in confined spaces.              |
| <b>Oxygen</b> | Store and handle in accordance with all current regulations and standards. Subject to storage regulations: U.S. OSHA 29 CFR 1910.101.  | Keep separated from incompatible substances. |

## Section 8: Exposure Controls/Personal Protection

|               | Exposure Guidelines  |
|---------------|--|
| <b>Argon</b>  | ARGON, COMPRESSED: ARGON: ACGIH (simple asphyxiant)                  |
| <b>Oxygen</b> | OXYGEN, COMPRESSED GAS: No occupational exposure limits established. |

## Engineering Controls

Handle only in fully enclosed systems.

|        | Eye Protection                                | Skin Protection                      | Respiratory Protection   |
|--------|---|--------------------------------------|--|
| Argon  | Eye protection not required, but recommended. | Protective clothing is not required. | N/A  |
| Oxygen | Eye protection not required, but recommended. | Protective clothing is not required. | Respiratory protection may be needed for frequent or heavy exposure. |

## General Hygiene considerations

- Avoid breathing vapor or mist
- Avoid contact with eyes and skin
- Wash thoroughly after handling and before eating or drinking

## Section 9: Physical and Chemical Properties

|        | Physical State | Appearance | Color     | Change in Appearance | Physical Form | Odor     | Taste     |
|--------|----------------|------------|-----------|----------------------|---------------|----------|-----------|
| Argon  | Gas            | Colorless  | Colorless | N/A                  | Gas           | Odorless | Tasteless |
| Oxygen | Gas            | Clear      | Colorless | N/A                  | Gas           | Odorless | Tasteless |

|        | Flash Point   | Flammability  | Partition Coefficient | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits |
|--------|---------------|---------------|-----------------------|--------------------------|------------------------|------------------------|
| Argon  | Not flammable |               |                       | Nonflammable             | Nonflammable           | Nonflammable           |
| Oxygen | Not flammable | Not available | Not available         | Nonflammable             | Nonflammable           | Nonflammable           |

|        | Boiling Point   | Freezing Point  | Vapor Pressure    | Vapor Density | Specific Gravity | Water Solubility | pH             | Odor Threshold | Evaporation Rate | Viscosity         |
|--------|-----------------|-----------------|-------------------|---------------|------------------|------------------|----------------|----------------|------------------|-------------------|
| Argon  | -303 F (-186 C) | -308 F (-189 C) | 500 mmHg @ -190 C | 1.38 (Air=1)  | Not applicable   | 3.36% @ 20 C     | Not applicable | Not available  | Not applicable   | 0.0225 cP @ 25 C  |
| Oxygen | -297 F (-183 C) | -360 F (-218 C) | 760 mmHg @ -183 C | 1.1 (Air=1)   | Not applicable   | 3.2% @ 25 C      | Not applicable | Not available  | Not applicable   | 0.02075 cP @ 25 C |

|        | Molecular Weight | Molecular Formula | Density          | Weight per Gallon | Volatility by Volume | Volatility     | Solvent Solubility        |
|--------|------------------|-------------------|------------------|-------------------|----------------------|----------------|---------------------------|
| Argon  | 39.948           | AR                | 1.784 g/L @ 0 C  | Not available     | 100%                 | Not applicable | Soluble: Organic solvents |
| Oxygen | 31.9988          | O2                | 1.309 g/L @ 25 C | Not available     | Not applicable       | Not applicable | Soluble: Alcohol          |

## Section 10: Stability and Reactivity

|        | Stability                                   | Conditions to Avoid                         | Incompatible Materials  |
|--------|---|---|---|
| Argon  | Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | No data available.  |
| Oxygen | Stable at normal temperatures and pressure. | Stable at normal temperatures and pressure. | Combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials, alkaline earth and alkali metals |

|        | Hazardous Decomposition Products     | Possibility of Hazardous Reactions |
|--------|--------------------------------------|------------------------------------|
| Argon  | No data available.                   | Will not polymerize.               |
| Oxygen | Miscellaneous decomposition products | Will not polymerize.               |

## Section 11: Toxicology Information

### Acute Effects

|  | Oral LD50 | Dermal LD50 | Inhalation |
|--|-----------|-------------|------------|
|--|-----------|-------------|------------|

|               | Oral LD50       | Dermal LD50     | Inhalation   |
|---------------|-----------------|-----------------|--|
| <b>Argon</b>  | Not established | Not established | Nausea, vomiting, difficulty breathing, irregular heartbeat, headache, dizziness, disorientation, mood swings, tingling sensation, loss of coordination, suffocation, convulsions, unconsciousness, coma       |
| <b>Oxygen</b> | Not established | Not established | Irritation, changes in body temperature, nausea, difficulty breathing, irregular heartbeat, dizziness, disorientation, hallucinations, mood swings, pain in extremities, tremors, lung congestion, convulsions |

|               | Eye Irritation                                | Skin Irritation                               | Sensitization                           |
|---------------|---|---|---|
| <b>Argon</b>  | No information on significant adverse effects | No information on significant adverse effects |   |
| <b>Oxygen</b> | No information on significant adverse effects | No information on significant adverse effects | No significant target effects reported. |

### Chronic Effects

|               | Carcinogenicity | Mutagenicity    | Reproductive Effects | Developmental Effects |
|---------------|-----------------|-----------------|----------------------|-----------------------|
| <b>Argon</b>  | Not established | Not established | Not established      | No data               |
| <b>Oxygen</b> | Not known.      | Available.      | Available.           | No data               |

## Section 12: Ecological Information

### Fate and Transport

|               | Eco toxicity  | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
|---------------|---|-----------------------------|--------------------------------|-------------------------|
| <b>Argon</b>  | Fish toxicity: Not available<br>Invertebrate toxicity: Not available<br>Algal toxicity: Not available<br>Phyto toxicity: Not available<br>Other toxicity: Not available | Not available               | Not available                  | Not available           |
| <b>Oxygen</b> | Fish toxicity: Not available<br>Invertebrate toxicity: Not available<br>Algal toxicity: Not available<br>Phyto toxicity: Not available<br>Other toxicity: Not available | Not available               | Low bioaccumulation            | Not available           |

## Section 13: Disposal Considerations

|               |   |
|---------------|---|
| <b>Argon</b>  | Dispose in accordance with all applicable regulations.  |
| <b>Oxygen</b> | Dispose in accordance with all applicable regulations. Subject to disposal regulations: U.S. EPA 40 CFR 262. Hazardous Waste Number(s): D001. |

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

#### DOT Information For This Mixture

|                           |  |
|---------------------------|--|
| <b>Shipping Name</b>      | Compressed gas, n.o.s. (Argon, Oxygen) |
| <b>UN Number</b>          | UN1956                                 |
| <b>Hazard Class</b>       | 2.2                                    |
| <b>Hazard Information</b> | Non-Flammable Gas                      |

#### Individual Component Information

|               | Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group  | Labeling Requirements | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|---------------|----------------------|-----------|--------------------------|----------------|-----------------------|--|--|---------------------------------|
| <b>Argon</b>  | Argon, compressed    | UN1006    | 2.2                      | Not applicable | 2.2                   | 75 kg or L   | 150 kg                                   | N/A                             |
| <b>Oxygen</b> | Oxygen, compressed   | UN1072    | 2.2                      | Not available  | 2.2; 5.1              | 75 kg or L   | 150 kg                                   | N/A                             |

## Canadian Transportation of Dangerous Goods

|               | Shipping Name      | UN Number | Class    | Packing Group / Risk Group |
|---------------|--------------------|-----------|----------|----------------------------|
| <b>Argon</b>  | Argon, compressed  | UN1006    | 2.2      | Not applicable             |
| <b>Oxygen</b> | Oxygen, compressed | UN1072    | 2.2; 5.1 | Not applicable             |

## Section 15: Regulatory Information

### U.S. Regulations

|               | CERCLA Sections | SARA 355.30    | SARA 355.40    |
|---------------|-----------------|----------------|----------------|
| <b>Argon</b>  | Not regulated.  | Not regulated. | Not regulated. |
| <b>Oxygen</b> | Not regulated.  | Not regulated. | Not regulated. |

### SARA 370.21

|               | Acute | Chronic | Fire | Reactive | Sudden Release |
|---------------|-------|---------|------|----------|----------------|
| <b>Argon</b>  | Yes   | No      | No   | No       | Yes            |
| <b>Oxygen</b> | No    | No      | Yes  | No       | Yes            |

### SARA 372.65

|               |                |
|---------------|----------------|
| <b>Argon</b>  | Not regulated. |
| <b>Oxygen</b> | Not regulated. |

### OSHA Process Safety

|               |                |
|---------------|----------------|
| <b>Argon</b>  | Not regulated. |
| <b>Oxygen</b> | Not regulated. |

### State Regulations

|               | CA Proposition 65 |
|---------------|-------------------|
| <b>Argon</b>  | Not regulated.    |
| <b>Oxygen</b> | Not regulated.    |

### Canadian Regulations

|               | WHMIS Classification |
|---------------|----------------------|
| <b>Argon</b>  | A                    |
| <b>Oxygen</b> | A,C                  |

### National Inventory Status

|               | US Inventory (TSCA)  | TSCA 12b Export Notification | Canada Inventory (DSL/NDSL) |
|---------------|----------------------|------------------------------|-----------------------------|
| <b>Argon</b>  | Listed on inventory. | Not listed.                  | Listed on inventory.        |
| <b>Oxygen</b> | Listed on inventory. | Not listed.                  | Not determined.             |

## Section 16: Other Information

|               | NFPA Rating                             |
|---------------|---|
| <b>Argon</b>  | HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=SA |
| <b>Oxygen</b> | HEALTH=0 FIRE=0 REACTIVITY=0 SPECIAL=OX |

0 = minimal hazard, 1 = slight hazard, 2 = moderate hazard, 3 = severe hazard, 4 = extreme hazard