



# Safety Data Sheet

## Oxygen, Compressed

SDS# 1000000021

**Arc3 Gases**  
1660 Hwy 301 S, Dunn, NC, 28334  
Emergency Phone : INFOTRAC 1-800-535-5053  
www.arc3gases.com

### Section 1: Product and Company Identification

**Arc3 Gases**

1660 Hwy 301 S, Dunn, NC, 28334  
Emergency Phone : INFOTRAC 1-800-535-5053  
www.arc3gases.com

Product Code: SDS# 1000000021

Part Number:

**Synonyms:**

**Recommended Use:** Not Known

**Usage Restrictions:** Not Known

### Section 2: Hazards Identification



**Danger**

Hazard Classification:

Gases Under Pressure, H280  
Oxidizing Gas (Category 1), H270

Hazard Statements:

H280: Contains gas under pressure; may explode if heated  
H270: May cause or intensify fire; oxidizer

Precautionary Statements

P202: Do not handle until all safety precautions have been read and understood.  
P220: Store away from clothing and other combustible materials.  
P244: Keep valves and fittings free from oil and grease.  
P271+P403: Use and store only outdoors or in a well-ventilated place.  
P370+P376: In case of fire: Stop leak if safe to do so.  
CGA-PG02: Protect from sunlight when ambient temperature exceeds 52C (125F).  
CGA-PG05: Use a back flow preventive device in the piping.  
CGA-PG06: Close valve after each use and when empty.  
CGA-PG10+CGA-PG20: Use only with equipment of compatible materials of construction and rated for cylinder pressure.  
CGA-PG12: Do not open valve until connected to equipment prepared for use.  
CGA-PG21: Open valve slowly.  
CGA-PG22: Use only equipment cleaned for oxygen service.  
CGA-PG27: Read and follow the Safety Data Sheet (SDS) before use.

Section 3: Composition/Information on Ingredients

|        | CAS #     | Concentration |
|--------|-----------|---------------|
| Oxygen | 7782-44-7 | 100%          |

|        | Trade Names                                                                   |
|--------|-------------------------------------------------------------------------------|
| Oxygen | O<br>Oxygen<br>Molecular oxygen<br>oxygen molecule<br>Dioxygen<br>Pure oxygen |

Section 4: First Aid Measures

IF ON SKIN: wash with plenty of water. IF INHALED: Remove person to fresh air and keep comfortable for breathing. Get medical advice/attention.  
IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do - continue rinsing.

Section 5: Fire Fighting Measures

**Suitable Extinguishing Media:**  
Use suitable extinguishing material for surrounding fire.

**Protection of Firefighters:**  
Fire-fighters should wear appropriate protective equipment and self-contained breathing apparatus (SCBA) with a full face-piece operated in positive pressure mode.

|        | Products of Combustion               |
|--------|--------------------------------------|
| Oxygen | Miscellaneous decomposition products |

Section 6: Accidental Release Measures

**Personal Precautions:**  
Keep unnecessary people away, isolate hazard area and deny entry. Ventilate closed spaces before entering.

**Environmental Precautions:**  
Keep away from drains, surface and ground water. Avoid heat, flames, sparks and other sources of ignition.

**Methods for Containment and Cleanup:**  
Stop leak if possible without personal risk. Reduce vapors with water spray. Remove sources of ignition. If necessary, cover drains.  
Absorb large spills, dispose in appropriate containers.

Section 7: Handling and Storage

**Handling:**  
See precautions in Section 2. Only trained personnel should handle this product. Always use approved personal protective equipment.

**Storage:**

Keep container tightly closed in a dry and well-ventilated place. Containers which are opened must be carefully resealed and kept upright to prevent leakage.

Store and handle in accordance with all current regulations and standards. Store in a well-ventilated area. Keep separated from incompatible substances.

|        | Incompatibilities                                                                                                                               | Conditions to avoid                                                                                                                    |
|--------|-------------------------------------------------------------------------------------------------------------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|
| Oxygen | Combustible materials, halo carbons, metals, bases, reducing agents, amines, metal salts, oxidizing materials, alkaline earth and alkali metals | Avoid contact with combustible materials. Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. |

## Section 8: Exposure Controls/Personal Protection

| Exposure Guidelines | Threshold Limit Value -TLV (ppm) |
|---------------------|----------------------------------|
| Oxygen              | Not Available                    |

**Engineering Controls**

No specific controls are needed.

|                               |                                                      |
|-------------------------------|------------------------------------------------------|
| <b>Eye Protection</b>         | Wear splash resistant safety goggles.                |
| <b>Skin Protection</b>        | Wear chemical protective clothing, including gloves. |
| <b>Respiratory Protection</b> | Use self-contained breathing apparatus.              |

**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 / Physical Form | Appearance / Color | Odor     | Flash Point   | Flammability | Partition Coefficient |
|--------|--------------------------------|--------------------|----------|---------------|--------------|-----------------------|
| Oxygen | Gas                            | Colorless          | Odorless | Not flammable | False        | 0                     |

|        | Autoignition Temperature | Upper Explosive Limits | Lower Explosive Limits | Boiling Point   | Freezing Point  | Vapor Pressure |
|--------|--------------------------|------------------------|------------------------|-----------------|-----------------|----------------|
| Oxygen | Nonflammable             | Not Available          | Not Available          | -297 F (-183 C) | -360 F (-218 C) | Not Available  |

|        | Vapor Density | Specific Gravity | Water Solubility | pH | Evaporation Rate | Viscosity         |
|--------|---------------|------------------|------------------|----|------------------|-------------------|
| Oxygen | 1.1           | Not applicable   | 3.2% @ 25 C      | 0  | Not applicable   | 0.02075 cP @ 25 C |

|        | Molecular Weight | Molecular Formula | Density       | Volatility     | Solvent Solubility |
|--------|------------------|-------------------|---------------|----------------|--------------------|
| Oxygen | 31.998           | O2                | Not Available | Not applicable | Soluble : Alcohol  |

## Section 10: Stability and Reactivity

|        | Stability                                   | Conditions to Avoid                                                                                                                    | Incompatible Materials                                                                                                                          |
|--------|---------------------------------------------|----------------------------------------------------------------------------------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------|
| Oxygen | Stable at normal temperatures and pressure. | Avoid contact with combustible materials. Protect from physical damage and heat. Containers may rupture or explode if exposed to heat. | 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 |
|--------|--------------------------------------|------------------------------------|
| Oxygen | Miscellaneous decomposition products | Will not polymerize.               |

## Section 11: Toxicology Information

The toxicology information is calculated for the mixture.

### Acute Toxicity Estimates (ATE) of the mixture.

|                      |               |
|----------------------|---------------|
| Oral ATE (mg/kg)     | Not Available |
| Inhalation ATE (ppm) | Not Available |
| Dermal ATE (mg/kg)   | Not Available |

### Additional health hazards:

|                                   |               |
|-----------------------------------|---------------|
| Skin Corrosion/Irritation         | Not Available |
| Eye Damage/Irritation             | Not Available |
| Respiratory or Skin Sensitization | Not Available |
| Germ Cell Mutagenicity            | Not Available |
| Carcinogenicity                   | Not Available |
| Reproductive Toxicity             | Not Available |
| STOT – single exposure            | Not Available |
| STOT – repeated exposure          | Not Available |
| Aspiration Hazard                 | Not Available |

## Section 12: Ecological Information

### Fate and Transport

|        | Eco toxicity                                                                               | Persistence / Degradability | Bioaccumulation / Accumulation | Mobility in Environment |
|--------|--------------------------------------------------------------------------------------------|-----------------------------|--------------------------------|-------------------------|
| Oxygen | Fish toxicity: 0<br>Invertebrate toxicity: Algal toxicity: Phyto toxicity: Other toxicity: | Not available               | Low bioaccumulation            | Not available           |

## Section 13: Disposal Considerations

Dispose in accordance with all applicable regulations. Do not dispose in sewers or waterways. Recycle if possible to do so. Return to manufacturer for disposal if needed.

## Section 14: Transportation Information

### U.S. DOT 49 CFR 172.101

|        | Proper Shipping Name | ID Number | Hazard Class or Division | Packing Group | Passenger Aircraft or Railcar Quantity Limitations | Cargo Aircraft Only Quantity Limitations | Additional Shipping Description |
|--------|----------------------|-----------|--------------------------|---------------|----------------------------------------------------|------------------------------------------|---------------------------------|
| Oxygen | Oxygen, Compressed   | UN1072    | Not available            | Not available | Not available                                      | Not available                            | Not available                   |

## Canadian Transportation of Dangerous Goods

|        | Shipping Name      | UN Number | Class         | Packing Group / Risk Group |
|--------|--------------------|-----------|---------------|----------------------------|
| Oxygen | Oxygen, Compressed | UN1072    | Not Available | Not Available              |

## Section 15: Regulatory Information

## U.S. Regulations

|        | CERCLA Sections | SARA 355.30    | SARA 355.40    |
|--------|-----------------|----------------|----------------|
| Oxygen | Not Regulated.  | Not Regulated. | Not Regulated. |

## SARA 370.21

|        | Acute | Chronic | Fire | Reactive | Sudden Release |
|--------|-------|---------|------|----------|----------------|
| Oxygen | No    | No      | Yes  | No       | Yes            |

## SARA 372.65

|        |                |
|--------|----------------|
| Oxygen | Not Regulated. |
|--------|----------------|

## OSHA Process Safety

|        |                |
|--------|----------------|
| Oxygen | Not regulated. |
|--------|----------------|

## State Regulations

|        | CA Proposition 65 |
|--------|-------------------|
| Oxygen | Not regulated.    |

## Canadian Regulations

|        | WHMIS Classification |
|--------|----------------------|
| Oxygen | A,C                  |

## National Inventory Status

|        | US Inventory (TSCA) | TSCA 12b Export Notification | Canada Inventory (DSL/NDL) |
|--------|---------------------|------------------------------|----------------------------|
| Oxygen | Oxygen              | Not listed.                  | Listed on DSL.             |

## Section 16: Other Information

|        | NFPA Rating                                   |
|--------|-----------------------------------------------|
| Oxygen | Health = 3, Flammability = 0, Instability = 0 |

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