

# Material Safety Data Sheet

## SECTION 1 PRODUCT AND COMPANY IDENTIFICATION

Product Identification: OXYGEN,COMPRESSED GAS (UN1072)

Date of MSDS: 11/29/1995 Technical Review Date: 11/09/1998

FSC: 6830 NIIN: 00-286-8684

Submitter: D DG

Status Code: A

MFN: 02

Article: N

Kit Part: N

### Manufacturer's Information

Manufacturer's Name: AIRGAS

Manufacturer's Address1: FIVE RADNOR CORP CNTR,STE 550,100 MATSOF

Manufacturer's Address2: RADNOR, PA 19087-4579

Manufacturer's Country: US

General Information Telephone: 610-687-5253

Emergency Telephone: 800-424-9300(CHEMTREC)

Emergency Telephone: 800-424-9300(CHEMTREC)

MSDS Preparer's Name: N/P

Proprietary: N

Reviewed: Y

Published: Y

CAGE: AIRGA

Special Project Code: N

### Item Description

Item Name: OXYGEN, AVIATOR'S BREATHING

Item Manager:

Specification Number: MIL-O-27210

Type/Grade/Class: NK

Unit of Issue: CF

Unit of Issue Quantity: 1

Type of Container: CYLINDER

### Preparer Information

**Preparer's Name:** AIRGAS

**Post Office Box:** N/K

**Preparer's Address1:** 100 MATSONFORD ROAD, 5 RADNOR CORP CNTR

**Preparer's Address2:** RADNOR, PA 19087

**Preparer's CAGE:** AIRGA

**Assigned Individual:** N

## Contractor Information

Contractor's Name: AIRGAS  
Post Office Box: N/K  
Contractor's Address1: 100 MATSONFORD ROAD, 5 RADNOR CORP CNTR  
Contractor's Address2: RADNOR, PA 19087  
Contractor's Telephone: 215-687-5253  
Contractor's CAGE: AIRGA

### Contractor Information

**Contractor's Name:** AIRGAS INC  
**Contractor's Address1:** 100 MATSONFORD RD SUITE 550  
**Contractor's Address2:** WAYNE, PA 19087  
**Contractor's Telephone:** 215-687-5253  
**Contractor's CAGE:** 0MN39

## SECTION 2 COMPOSITION/ INFORMATION ON INGREDIENTS

### OXYGEN,COMPRESSED GAS (UN1072)

**Ingredient Name:** INERT MATERIALS  
**Ingredient CAS Number:** **Ingredient CAS Code:** X  
**RTECS Number:** **RTECS Code:** X  
**=WT:** **=WT Code:**  
**=Volume:** **=Volume Code:**  
**>WT:** **>WT Code:**  
**>Volume:** **>Volume Code:**  
**<WT:** **<WT Code:**  
**<Volume:** **<Volume Code:**  
**% Low WT:** **% Low WT Code:**  
**% High WT:** **% High WT Code:**  
**% Low Volume:** **% Low Volume Code:**  
**% High Volume:** **% High Volume Code:**  
**% Text:** <1.0  
**% Enviromental Weight:**  
**Other REC Limits:** NONE RECOMMENDED  
**OSHA PEL:** NOT ESTABLISHED **OSHA PEL Code:** M  
**OSHA STEL:** **OSHA STEL Code:**  
**ACGIH TLV:** NOT ESTABLISHED **ACGIH TLV Code:** M  
**ACGIH STEL:** N/P **ACGIH STEL Code:**  
**EPA Reporting Quantity:**  
**DOT Reporting Quantity:**  
**Ozone Depleting Chemical:**

**Ingredient Name:** OXYGEN  
**Ingredient CAS Number:** 7782-44-7 **Ingredient CAS Code:** M  
**RTECS Number:** RS2060000 **RTECS Code:** M  
**=WT: =WT Code:**  
**=Volume: =Volume Code:**  
**>WT: >WT Code:**  
**>Volume: >Volume Code:**  
**<WT: <WT Code:**  
**<Volume: <Volume Code:**  
**% Low WT: % Low WT Code:**  
**% High WT: % High WT Code:**  
**% Low Volume: % Low Volume Code:**  
**% High Volume: % High Volume Code:**  
**% Text: >99.0**  
**% Environmental Weight:**  
**Other REC Limits:** NONE RECOMMENDED  
**OSHA PEL: NOT ESTABLISHED OSHA PEL Code:** M  
**OSHA STEL: OSHA STEL Code:**  
**ACGIH TLV: NOT ESTABLISHED ACGIH TLV Code:** M  
**ACGIH STEL: N/P ACGIH STEL Code:**  
**EPA Reporting Quantity:**  
**DOT Reporting Quantity:**  
**Ozone Depleting Chemical:** N

### SECTION 3 – HAZARDS IDENTIFICATION, INCLUDING EMERGENCY OVERVIEW

#### OXYGEN, COMPRESSED GAS (UN1072)

**Health Hazards Acute & Chronic:** PURE OXY ESPECIALLY NOT PROPERLY HUMIDIFIED MAY CAUSE MUC MEMB IRRIT, PULM EDEMA AFT 24HR. AIR NORMALLY CONTAINS 20-21% OXY. AS EXPO TO HI CONC &/OR >ATM PRESS CONTD SYMPT OF TOXICITY MAY DEVL P, INCR VITAL CAPACITY, TIGHT CHEST, DISCOMFT, COUGH, CONGEST, TRACHBRONC, PNEU, EDEMA, ATELECT ASIS, INCR RESP DEPTH, RAPID PANT/(SIGNS/SYM)

**Signs & Symptoms of Overexposure:**

HEALTH: ASTHMA-LIKE ATTACKS, APNEA IN INSPIRATORY POSITION, FIBROBLASTIC PROLIFERATION, HYPERPLASIA OF ALVEOLAR CELLS. CVS-BRADYCARDIA, HYPERTHERMIA, PERI VASOCONSTRICT. CNS-MOOD CHANGE, NAU, DIZZ, SLOW MENTAL P ROCE, MALAISE, APPREH, PARESTHESIAS, AUD HALLUC, CONSULV, UNCONSC. CHRONIC: OBSERVED INJURY TO MAN, DECR IN VITAL CAP, SEV IRREVS

**Medical Conditions Aggravated by Exposure:**

NONE SPECIFIED BY MANUFACTURER. TARGET ORGANS:POISONING MAY AFFECT PULM,CARDIOVASCULAR & NERVOUS SYSTEMS & EYE.

**LD50 LC50 Mixture:** NONE SPECIFIED BY MANUFACTURER.

**Route of Entry Indicators:**

**Inhalation:** YES

**Skin:** YES

**Ingestion:** NO

**Carcinogenicity Indicators**

**NTP:** NO

**IARC:** NO

**OSHA:** NO

**Carcinogenicity Explanation:** PER MSDS:CARCINOGEN STATUS:NONE.

**SECTION 3 – FIRST AID MEASURES**

**OXYGEN,COMPRESSED GAS (UN1072)**

**First Aid:**

REMOVE TO FRESH AIR IMMED.BREATH STOP DO ART RESP.TREAT SYMPT/SUPP.GET MED ATTN IMMED.SKIN:GAS-NO ADVERSE EFFECTS REPORTED).RAPID LIQ EVAP MAY CAUSE FROSTBITE,RED,TINGL,PAIN,NUMB,HARD,WHITE,BLISTERS.A DVERSE EFFECTS OCCUR GET MED ATTN.TREATFROSTBITE.WARM IN H2O @TEMP NOT >107F/WRAP IN BLANKETS.EXERCISE AFFECT PART.GET MED ATTN IMMED.EYE:IMMED WASH W/H2O,LIFT LIDS.FROSTBITE WARM H2O PREFER(OTH PRE)

**SECTION 5 FIRE FIGHTING MEASURES**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Fire Fighting Procedures:**

MOVE CNTNR FRM FIRE AREA IF POSSIBLE.STAY AWAY FRM STORAGE TANK ENDS.COOL FIRE-EXPO CNTNR W/H2O FRM SIDE TIL WELL AFT FIRE OUT.W/D IMMED IF RISE SOUND FRM(SUPP)

**Unusual Fire or Explosion Hazard:**

NEGLIG FIRE HAZ WHEN EXPO TO HEAT/FLAME.OXIDIZER-DECOMPO ESPECIALLY WHEN HEAT-YIELD OXY/OTHER GAS WHICH WILL INCR BURN RATE OF COMBUST MATTER.CONTACT W/(SUPPLE)

**Extinguishing Media:**

DRY CHEMICAL,CARBON DIOXIDE OR HALON.FOR LG FIRES USE WATER SPRAY,FOG,STANDARD FOAM.

**Flash Point: Flash Point Text:** NP

**Autoignition Temperature:**

**Autoignition Temperature Text:** NP  
**Lower Limit(s):** NP  
**Upper Limit(s):** NP

#### SECTION 6 ACCIDENTAL RELEASE MEASURES

##### OXYGEN,COMPRESSED GAS (UN1072)

**Spill Release Procedures:**

KEEP COMBUST AWAY FRM HAZ AREA.STOP LEAK W/O RISK.ISOLATE AREA TIL GAS DISPERS.KEEP UNNECESSARY PEOPLE AWAY;ISOLATE AREA,DENY ENTRY.VENTI CLSD SPACES BEF ENTERING.PROHIBIT SMOKING,SPARK PROD EPQMT,VEH ICLE OPERATION IN IMMED AREA/DISTANCE DOWNWIND.

#### SECTION 7 HANDLING AND STORAGE

##### OXYGEN,COMPRESSED GAS (UN1072)

**Handling and Storage Precautions:**

**Other Precautions:**

#### SECTION 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

##### OXYGEN,COMPRESSED GAS (UN1072)

**Respiratory Protection:**

NONE SPECIFIED BY MANUFACTURER.

**Ventilation:**

PROVIDE GENERAL DILUTION VENTILATION.

**Protective Gloves:**

FULL PROTECTIVE COLD INSULATING FOR LIQ

**Eye Protection:** SPLASH PROOF SAF GOGG,FCSHIELD.

**Other Protective Equipment:** LIQ-PROTECTIVE INSULATIVE CLOTH,EQPMT-PREVENT SKIN CONTACT,FREEZING.CONTACT LENSES SHOULDN'T BE WORN.EYEWASH FOUNT,SHOWER

**Work Hygenic Practices:** NONE SPECIFIED BY MANUFACTURER.

**Supplemental Health & Safety Information:** FIRE/EXPLO:EASILY OXIDIZ,ORG,OTHER COMBUST MATL MAY RESULT IN IGN/VIOL COMBUST/EXPLO.CYL MAY EXPLO IN HEAT/FIRE. FIREFIGHT:VENT SAF DEVICE HEARD/DISCOLORATION OF STORAGE TANKS DUE TO FIRE.MASSIVE FIRE IN STORAGE AREA USE UNMAN HOSE HOLDER/MON NOZ/W/D FRM AREA,LET FIRE BURN.USE EXT SUITABLE FOR TYPE SURROUND FIRE.

**SECTION 9 PHYSICAL AND CHEMICAL PROPERTIES**

**OXYGEN, COMPRESSED GAS (UN1072)**

**HCC:** G4

**NRC/State License Number:** N/R

**Net Property Weight for Ammo:** N/R

**Boiling Point: Boiling Point Text:** -297F,-183C

**Melting/Freezing Point: Melting/Freezing Text:** -361F,-218C

**Decomposition Point: Decomposition Text:** NP

**Vapor Pressure:** 760 @-183C **Vapor Density:** 1.309G/L

**Percent Volatile Organic Content:**

**Specific Gravity:** 1.105

**Volatile Organic Content Pounds per Gallon:**

**pH:** NP

**Volatile Organic Content Grams per Liter:**

**Viscosity:** NP

**Evaporation Weight and Reference:** NP

**Solubility in Water:** 0.0491 @0C

**Appearance and Odor:** ODORLESS, COLORLESS, TASTELESS GAS

**Percent Volatiles by Volume:** NP

**Corrosion Rate:** NP

**SECTION 10 STABILITY AND REACTIVITY**

**OXYGEN, COMPRESSED GAS (UN1072)**

**Stability Indicator:** YES

**Materials to Avoid:**

ETHERS, ACETALDEHYDE, SECAALCOHOL, ALKALI METALS, ALLYLIC  
CMPDS, AMMONIA, CARBON, COMBUST MATLS, CYANOGEN, ETHERS, FLAMM  
MATL

**Stability Condition to Avoid:**

CONTACT W/COMBUST MATL(WOOD, PAPER, FUEL, OILS, ETC); DONT PERMIT  
DMG/OVERHEAT CNTNR. UNDER PRESSURE, MAY VIO RUP, TRAVEL DISTAN

**Hazardous Decomposition Products:**

NONE

**Hazardous Polymerization Indicator:** NO

**Conditions to Avoid Polymerization:**

NONE SPECIFIED BY MANUFACTURER.

**SECTION 11 TOXICOLOGICAL INFORMATION**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Toxicological Information:**

N/P

**SECTION 12 ECOLOGICAL INFORMATION**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Ecological Information:**

N/P

**SECTION 13 DISPOSAL CONSIDERATIONS**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Waste Disposal Methods:**

OBSERV ALL FED/STATE/LOC REGS.ASSIST CALL EPA/PROD SUPPLIER.GAS OXY SHOULD BE VENTED IN MANNER THAT DOESNT CREATE OXY RICH ATM IN CONF SPACE.LIQ OXY BE SURE LIQ/VAP DONT COME IN CONTACT W/COMBUST MATL ESPEC HYDROCARBON MATL,OIL,GREASE,ASPHALT.

**SECTION 14 TRANSPORT INFORMATION**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Transport Information:**

N/P

**SECTION 15 REGULATORY INFORMATION**

**OXYGEN,COMPRESSED GAS (UN1072)**

**SARA Title III Information:**

N/P

**Federal Regulatory Information:**

N/P

**State Regulatory Information:**

N/P

**SECTION 16 OTHER INFORMATION**

**OXYGEN,COMPRESSED GAS (UN1072)**

**Other Information:**

N/P

**HMIS Transportation Information**

**Product Identification:** OXYGEN,COMPRESSED GAS (UN1072)

**Transportation ID Number:** 67394

**Responsible Party CAGE:** AIRGA

**Date MSDS Prepared:** 11/29/1995

**Date MSDS Reviewed:** 11/09/1998

**MFN:** 11/09/1998

**Submitter:** D DG

**Status Code:** A

**Container Information**

**Unit of Issue:** CF

**Container Quantity:** 1

**Type of Container:** CYLINDER

**Net Unit Weight:** 300 CUFT

**Article without MSDS:** N

**Technical Entry NOS Shipping Number:**

**Radioactivity:**

**Form:**

**Net Explosive Weight:**

**Coast Guard Ammunition Code:**

**Magnetism:** N/P

**AF MMAC Code:**

**DOD Exemption Number:**

**Limited Quantity Indicator:**

**Multiple Kit Number:** 0

**Kit Indicator:** N

**Kit Part Indicator:** N

**Review Indicator:** Y

**Additional Data:**

PER MSDS:NON-FLAMM GAS,OXIDIZER & NONFLAMMABLE GAS LABEL,  
LTD QUANT EXCEPTIONS:49CFR173.306.

**Department of Transportation Information**

**DOT Proper Shipping Name:** OXYGEN, COMPRESSED

**DOT PSN Code:** LEH

**Symbols:**

**DOT PSN Modifier:**

**Hazard Class:** 2.2

**UN ID Number:** UN1072

**DOT Packaging Group:**

**Label:** NONFLAMMABLE GAS, OXIDIZER

**Special Provision(s):** A52  
**Packaging Exception:** 306  
**Non Bulk Packaging:** 302  
**Bulk Packaging:** 314,315  
**Maximum Quantity in Passenger Area:** 75 KG  
**Maximum Quantity in Cargo Area:** 150 KG  
**Stow in Vessel Requirements:** A  
**Requirements Water/Sp/Other:**

**IMO Detail Information**

**IMO Proper Shipping Name:** OXYGEN, COMPRESSED  
**IMO PSN Code:** LBP  
**IMO PSN Modifier:**  
**IMDG Page Number:** 2169  
**UN Number:** 1072  
**UN Hazard Class:** 2(2.2)  
**IMO Packaging Group:** -  
**Subsidiary Risk Label:** OXIDIZING AGENT  
**EMS Number:** 2-04  
**Medical First Aid Guide Number:** NON

**IATA Detail Information**

**IATA Proper Shipping Name:** OXYGEN, COMPRESSED  
**IATA PSN Code:** SWO  
**IATA PSN Modifier:**  
**IATA UN Id Number:** 1072  
**IATA UN Class:** 2.2  
**Subsidiary Risk Class:** 5.1  
**UN Packaging Group:**  
**IATA Label:** NON-FLAMMABLE GAS & OXIDIZER  
**Packaging Note for Passengers:** 200  
**Maximum Quantity for Passengers:** 75KG  
**Packaging Note for Cargo:** 200  
**Maximum Quantity for Cargo:** 150KG  
**Exceptions:**

**AFI Detail Information**

**AFI Proper Shipping Name:** OXYGEN, COMPRESSED  
**AFI Symbols:**  
**AFI PSN Code:** SWO  
**AFI PSN Modifier:**  
**AFI UN Id Number:** UN1072  
**AFI Hazard Class:** 2.2  
**AFI Packing Group:** N/A  
**AFI Label:** 5.1  
**Special Provisions:** P5  
**Back Pack Reference:** A6.3, A6.6

### **HAZCOM Label Information**

**Product Identification:** OXYGEN,COMPRESSED GAS (UN1072)

**CAGE:** AIRGA

**Assigned Individual:** N

**Company Name:** AIRGAS

**Company PO Box:** N/K

**Company Street Address1:** 100 MATSONFORD ROAD, 5 RADNOR CORP CNTR

**Company Street Address2:** RADNOR, PA 19087 US

**Health Emergency Telephone:** 800-424-9300(CHEMTREC)

**Label Required Indicator:** Y

**Date Label Reviewed:** 11/09/1998

**Status Code:** C

**Manufacturer's Label Number:**

**Date of Label:** 11/09/1998

**Year Procured:** N/K

**Organization Code:** F

**Chronic Hazard Indicator:** Y

**Eye Protection Indicator:** YES

**Skin Protection Indicator:** YES

**Respiratory Protection Indicator:** N/P

**Signal Word:** DANGER

**Health Hazard:** Moderate

**Contact Hazard:** None

**Fire Hazard:** None

**Reactivity Hazard:** Severe

The above information is based on the data of which we are aware and is believed to be correct as of the date hereof. Since this information may be applied under conditions beyond our control and with which we may be unfamiliar and since data made available subsequent to the date hereof may suggest modifications of the information, we do not assume any responsibility for the results of its use. This information is furnished upon condition that the person receiving it shall make his own determination of the suitability of the material for his particular purpose.