

===== MSDS
 ===== Safety Information =====
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FSC: 1660 **NIIN:** 01-138-8623 **MSDS Date:** 01/01/1995 **MSDS Num:** CJKDL

Submitter: D DG **Tech Review:** 08/06/1999 **Status CD:** A

Product ID: OXYGEN, COMPRESSED **MFN:** 01

Article: N **Kit Part:** N

Cage:
 Responsible Party 00742

Name:
 AIR PRODUCTS AND CHEMICALS INC.

Address:
 7201 HAMILTON BLVD

City: ALLENTOWN **State:** PA **Zip:** 18195-1501

Country:
 US

Info Phone Number:
 800-752-1597; 800-345-3148

Emergency Phone Number:
 US/800-523-9374/OUT-US:810-481-7711

Resp. Party Other MSDS No.:
 1012

Proprietary Ind: N **Review Ind:** Y

Published: Y **Special Project CD:**

===== Contractor
 ===== Summary =====

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Cage: 00742 **Name:** AIR PRODUCTS AND CHEMICALS INC

Address:
 7201 HAMILTON BLVD
City:

State: PA **Zip:** 18195-1501

Country: US **Phone:** 800-345-3148/ 800-752-1597

Cage: 62323 **Name:** CONAX FLORIDA CORP

Address:
 2801 75TH STREET N
City:

State: **Zip:**

Country: SAINT PETERSBURG

FL 33710-2936

Contract Number: US SP0920-99-M-1045

Phone: 813-345-8000

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Description Information
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Item

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Item Manager:

S9G

Item Name: OXYGEN SYSTEM,PORTABLE

Specification Number: N/K

Type/Grade/Class: N/K

Unit of Issue: EA

Quantitative Expression:

UI Container Qty: 1

Type of Container: CYLINDER

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Ingredients
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Cas: 7782-44-7

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RS2060000

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Code:

RTECS #:

Code:

Name: OXYGEN

Environmental Wt:

Other REC Limits: N/P

OSHA PEL:

N/P

Code: OSHA N/P STEL:

Code:

ACGIH TLV: N/P

Code: ACGIH N/P STEL:

Code:

EPA Rpt Qty:

DOT Rpt Qty:

Ozone Depleting Chemical:

N

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Hazards Data
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Health

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LD50 LC50 Mixture

N/P

Route Of Entry Inds - Inhalation: YES

Skin: NO

Ingestion: NO

Carcinogenicity Inds - NTP: NO

IARC: NO

OSHA: NO

Health Hazards Acute And Chronic

TARGET ORGANS: EYES, CENTRAL NERVOUS SYSTEM. INHALATION: BREATHING 80% OR MORE OXYGEN AT ATMOSPHERIC PRESSURE FOR MORE THAN A FEW HOURS MAY CAUSE BREATHING DIFFICULTY. BREATHING OXYGEN AT HIGHER PRESSURE INCREASES THE LIKELIHOOD OF ADVERSE EFFECTS WITHIN A SHORTER TIME PERIOD. BREATHING PURE OXYGEN UNDER PRESSURE MAY CAUSE LUNG DAMAGE & ALSO CENTRAL NERVOUS SYSTEM EFFECTS. BREATHING OXYGEN UNDER PRESSURE MAY CAUSE PROLONGATION OF ADAPTATION TO DARKNESS & REDUCED PERIPHERAL VISION. EYE/SKIN CONTACT: NO ADVERSE EFFECT. AIRWAY OBSTRUCTION DURING HIGH CONC. MAY CAUSE ALVEOLAR COLLAPSE & OCCLUSION OF THE EUSTACHIAN TUBES.

Explanation Of Carcinogenicity

N/R

Signs And Symptoms Of Overexposure

INHALATION: BREATHING 80% OR MORE OXYGEN AT ATMOSPHERIC PRESSURE FOR MORE THAN A FEW HOURS MAY CAUSE NASAL STUFFINESS, COUGH, SORE THROAT, CHEST PAIN & BREATHING DIFFICULTY. BREATHING PURE OXYGEN UNDER PRESSURE MAY CAUSE DIZZINESS, POOR COORDINATION, TINGLING SENSATION, VISUAL & HEARING DISTURBANCES, MUSCULAR TWITCHING, UNCONSCIOUSNESS & CONVULSIONS. OBSTRUCTION OF THE PARANASAL SINUSES MAY PRODUCE 'VACUUM-TYPE' HEADACHE.

Medical Conditions Aggravated By Exposure

CHRONIC OBSTRUCTIVE PULMONARY DISEASE.

First Aid

INHALATION: MOVE VICTIM TO FRESH AIR OR IF IN ELEVATED PRESSURES REDUCE OXYGEN PRESSURES TO 1 ATMOSPHERE. CALL A PHYSICIAN & ADVISE THEM THAT THE VICTIM HAS BEEN EXPOSED TO A HIGH CONCENTRATION OF OXYGEN. EYE/SKIN CONTACT: NOT APPLICABLE. NOTES TO PHYSICIAN: ADMINISTRATION OF CERTAIN DRUGS, INCLUDING PHENOTHIAZINE DRUGS & CHLOROQUINE. VITAMIN 'E' DEFICIENCY MAY INCREASE SUSCEPTIBILITY TO OXYGEN TOXICITY.

Spill Release Procedures

EVACUATE ALL PERSONNEL FROM EFFECTED AREA. SHUT OFF SOURCE OF OXYGEN IF POSSIBLE. INCREASE VENTILATION TO RELEASE AREA. PERSONNEL EXPOSED TO HIGH CONC. OF OXYGEN SHOULD STAY IN A WELL-VENTILATED AREA FOR 30 MIN. BEFORE GOING INTO A CONFINED SPACE OR NEAR AN IGNITION SOURCE.

Neutralizing Agent

N/R

Waste Disposal Methods

RETURN CONTAINER & UNUSED PRODUCT TO SUPPLIER. DO NOT ATTEMPT TO DISPOSE OF RESIDUAL OR UNUSED QUANTITIES. FOR EMERGENCY DISPOSAL, SECURE CYLINDER & SLOWLY DISCHARGE GAS TO THE ATMOSPHERE IN A WELL VENTILATED AREA OR OUTDOORS.

Handling And Storage Precautions

CYLINDERS SHOULD BE STORED UPRIGHT IN A WELL-VENTILATED AREA. STORAGE AREA TEMPERATURES SHOULD NOT EXCEED 125F (52C) & AREA SHOULD BE FREE OF COMBUSTIBLES. DO NOT DRAG, ROLL, OR SLIDE CYLINDER. USE A PRESSURE REDUCING OR SEPARATE CONTROL VALVE TO SAFELY DISCHARGE GAS FROM CYLINDER.

Other Precautions

ALL GAUGES, VALVES, REGULATORS, PIPING & EQUIPMENT TO BE USED IN OXYGEN SERVICE MUST BE CLEANED FOR OXYGEN SERVICE IN ACCORDANCE WITH COMPRESSED GAS ASSOCIATION PAMPHLET G-4.1.

Explosion Hazard Information

Fire and

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Flash Point Method:

N/A

Flash Point:

Flash Point Text: N/A

Autoignition Temp:

Autoignition Temp Text: N/A

Lower Limits: NONFLAMMABLE

Upper Limits: NONFLAMMABLE

Extinguishing Media

OXYGEN IS NONFLAMMABLE BUT WILL SUPPORT COMBUSTION. USE EXTINGUISHING MEDIA APPROPRIATE FOR SURROUNDING FIRE.

Fire Fighting Procedures

EVACUATE ALL PERSONNEL FROM THE DANGER AREA. IF POSSIBLE, SHUT OFF FLOW OF OXYGEN WHICH IS SUPPORTING THE FIRE. IMMEDIATELY COOL CONTAINERS WITH WATER SPRAY FROM MAXIMUM DISTANCE. WHEN COOL MOVE CYLINDERS FROM FIRE AREA, IF POSSIBLE WITHOUT RISK. SELF CONTAINED BREATHING APPARATUS MAY BE REQUIRED FOR RESCUE WORKERS.

Unusual Fire/Explosion Hazard

OXYGEN VIGOROUSLY ACCELERATES COMBUSTION. MATERIALS WHICH ARE NONCOMBUSTIBLE IN AIR WILL BURN IN PRESENCE OF OXYGEN ATMOSPHERE(OVER23%). FIRE RESIST CLOTHING MAY BURN & OFFER NO PROTECTION IN OXYGEN RICH ATMOSPHERES. OXYGEN MAY FORM EXPLOSIVE COMPDS WHEN EXPOSED TO COMBUST MATLS OR OIL,GREASE,&OTHER HYDROCARBON MATLS.

Measures

Control

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Respiratory Protection

GENERAL USE: NONE REQUIRED. EMERGENCY: USE SCBA, DUE TO POSSIBILITY OF FIRE WHEN CONCENTRATIONS EXCEED 23%.

Ventilation

PROVIDE VENTILATION AND/OR LOCAL EXHAUST TO PREVENT ACCUMULATION OF HIGH CONCENTRATIONS OF GAS (23%).

Protective Gloves

WORK GLOVES

Eye Protection

N/P

Other Protective Equipment

SAFETY SHOES/WORK GLOVES RECOMMENDED WHEN HANDLING CYLINDERS. CLOTHING EXPOSED TO HIGH CONCENTRATIONS MAY RETAIN OXYGEN 30 MINUTES OR LONGER BECOME POTENTIAL FIRE HAZARD. STAY AWAY FM IGNITION SOURCES

Work Hygienic Practices

N/P

Supplemental Safety and Health

N/P

Physical/Chemical Properties

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HCC:

G4

NRC/State LIC No:

Net Prop WT For Ammo:

Boiling Point: --182.9C, -297.2F

B.P. Text:

Melt/Freeze Pt: --218.8C, -361.8F

M.P/F.P Text:

Decomp Temp:

Decomp Text: N/P

Vapor Pres: N/A@70F

Vapor Density: 70F(21.1C)

Volatile Org Content %:

Spec Gravity: 70F & 1ATM; 1.10
(AIR=1)

VOC Pounds/Gallon:

PH: N/P

VOC Grams/Liter:

Viscosity: N/P

Evaporation Rate & Reference: N/P

Solubility in Water: VOL/VOL AT 32F(0C); 0.049

Appearance and Odor: COLORLESS GAS. ODORLESS.

Percent Volatiles by Volume: N/P

Corrosion Rate: N/P

Reactivity Data

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Stability Indicator:

YES

Stability Condition To Avoid: NONE.

Materials To Avoid: OILS, GREASE, HYDROCARBONS AND FLAMMABLE MATERIALS.

Hazardous Decomposition Products: NONE.

Hazardous Polymerization Indicator: NO

Conditions To Avoid Polymerization NONE.

Toxicological Information

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Toxicological Information:

AT ATMOSPHERIC CONCENTRATION & PRESSURE, OXYGEN POSES NO TOXICITY HAZARDS. PREMATURE INFANTS EXPOSED TO HIGH OXYGEN CONC. MAY SUFFER DELAYED RETINAL DAMAGE WHICH CAN PROGRESS TO RETINAL DETACHMENT & B LINDNESS. RETINAL DAMAGE MAY ALSO OCCUR IN ADULTS EXPOSED TO 100% OXYGEN FOR EXTENDED PERIODS (24 TO 48 HOURS).

Ecological Information

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Ecological:

THE ATMOSPHERE CONTAINS 21% OXYGEN. NO ADVERSE ECOLOGICAL EFFECTS ARE EXPECTED. OXYGEN DOES NOT CONTAIN ANY CLASS I OR CLASS II OZONE DEPLETING CHEMICALS & IS NOT LISTED AS A MARINE POLLUTANT BY DOT (49 CFR 171).

MSDS Transport Information

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Transport Information:

OXYGEN, COMPRESSED, UN1072

Regulatory Information

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Sara Title III Information:

SECTION 302: REQUIRES EMERGENCY PLANNING BASED ON THRESHOLD PLANNING QUANTITIES & RELEASE REPORTING BASED ON REPORTABLE QUANTITIES OF EPA'S EXTREMELY HAZARDOUS SUBSTANCES (40 CFR 355). SECTIONS 311/3 12: REQUIRE SUBMISSION OF MATERIAL SAFETY DATA SHEETS & CHEMICAL INVENTORY REPORTING WITH IDENTIFICATION OF EPA DEFINED HAZARD CLASSES. THE HAZARD CLASSES FOR THIS PRODUCT ARE: PRESSURE: YES. FLAMMABLE: YES.

Federal Regulatory Information: CERCLA: NO REPORTABLE QUANTITY. OXYGEN IS LISTED ON THE TSCA INVENTORY.

State Regulatory Information: CALIFORNIA: PROPOSITION 65: THIS PRODUCT DOES NOT CONTAIN ANY LISTED SUBSTANCES FOR WHICH THE STATE OF CALIFORNIA REQUIRES WARNING UNDER THIS STATUTE.

===== Other Information =====

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Other Information:

N/P

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