

AIR PRODUCTS AND CHEMICALS, INC. -- HELIUM -- 6830-00-660-0026

===== Product Identification =====

Product ID:HELIUM

MSDS Date:02/16/1981

FSC:6830

NIIN:00-660-0026

MSDS Number: BHDSB

=== Responsible Party ===

Company Name:AIR PRODUCTS AND CHEMICALS, INC.

Box:538

City:ALLENTOWN

State:PA

ZIP:18105

Country:US

Info Phone Num:215-481-4911

Emergency Phone Num:1-800-523-9374 IN PA:1-800-322-9092

CAGE:0074

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=== Contractor Identification ===

Company Name:AIR PRODUCTS AND CHEMICALS INC

Address:7201 HAMILTON BLVD

Box:City:ALLENTOWN

State:PA

ZIP:18195-1501

Country:US

Phone:800-345-3148/ 800-752-1597

CAGE:00742

Company Name:FIRE KING OF SEATTLE

CAGE:6X786

Company Name:OXYGEN SALES AND SERVICE INC

Address:2043 S 35TH ST

Box:11393

City:TACOMA

State:WA

ZIP:98411-0393

Country:US

CAGE:5H199

===== Composition/Information on Ingredients =====

Ingred Name:NO HAZARDOUS INGREDIENT

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===== Hazards Identification =====

Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:HELIUM IS ODORLESS/NONTOXIC, BUT MAY PRODUCE SUFFOCATION BY DILUTING THE CONCENTRATION OF OXYGEN IN AIR BELOW LEVELS NECESSARY TO SUPPORT LIFE. PERSONEL/RESCUEWORKERS SHOULD NOT ENTER AREAS WHERE THE OXYGEN CONCENTRATION IS BELOW 19%UNLESS PROVIDED WITH A SELF-CONTAINED BREATHING

APPARATUS/AIRLINE RESPIRATOR.

Effects of Overexposure:EXPOSURE TO OXYGEN-DEFICIENT ATMOSPHERES MAY PRODUCE DIZZINESS/NAUSEA/VOMITING/ LOSS OF CONSCIOUSNESS/DEATH. DEATH MAY RESULT FM ERRORS IN JUDGEMENT/CONFUSION/ LOSS OF CONSCIOUSNESS WHICH PREV SELF RE SCUE. AT LOW OXY CONCENT UNCONSCIOUSNESS& DEATH MAY OCCUR IN SEC'S W/O WARNING. EXTENSIVE TISSUE DAMAGE/BURNS CAN RESULT

===== First Aid Measures =====

First Aid:PERSONS SUFFERING

FM LACK OF OXYGEN S/B MOVED TO AREAS

W/NORMAL ATMOSPHERE. SELFCONTAINED BREATHING APPARATUS MAY BE REQUIRED TO PREV ASPHYXIATION OF RESCUE WORKERS.CPR/SUPP OXYGEN S/B GIVEN IF THE VICTIM IS NOT BREATHING. IF CRYOGENICLIQ/COLD BOIL-OFF GAS CONTACTS SKIN/EYES, FROZEN TISSUES S/B FLOODED/SOAKED W/ TEPID WATER. CRYOGENIC BURNS WHICH RESULT IN BLISTERING/TISSUE FREEZE-MED ATTN.

===== Accidental Release Measures =====

Spill Release Procedures:A

VOID CONTACT OF SKIN W/LIQUID HELIUM/COLD

BOILOFFGAS. FLUSH LIQ SPILL W/WATER. VENTILATE ENCLOSED AREAS TO PREVENT FORMATION OF OXYGEN-DEFICIENT ATMOSPHERES CAUSED BY EVAP OF LIQ HELIUM OR THE RELEASE OF GASEOUS HELIUM.

===== Handling and Storage =====

Handling and Storage Precautions:USE ONLY IN WELL VENTILATED AREAS.

AVOID DRAGGING/ROLLING/SLIDING CYL'S EVEN FOR SHORT DISTANCES.

STORE LIQUID CONTAINERS/CYL'S IN WELL VENT AREAS.

Other Precautions:UTILIZE OXYGEN COMPATIBLE INSULATING MATLS/MINIMIZE EXPOSED PIPING SUR AREAS. COMPRESSED GAS CYL'S S/N BE REFILLED EXCEPT BY QUALIFIED PRODUCERS OF COMPRESSED GASES. SHIPPING COMPRESSED GAS CYL W/O PERMISSION OF OWNER IS VIOLATION FED LAW.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE SELF-CONTAINED BREATHING APPARATUS IN OXYGEN-DEFICIENT ATMOSPHERES. CAUTION!RESPIRATORS WILL NOT FUNCTION. USE MAY RESULT IN ASPHYXIATION.

Ventilation:NATURAL/MECHANICAL WHERE GAS IS PRESENT. VENTS S/B SITUATED TO AVOID HIGHER THAN NORMAL CONCENT OF HELIUM IN WORK AREAS.

Protective Gloves:LOOSE FITTING LEATHER WORK GLOVES

Eye Protection:SAFETY GLASSES/CHEMICAL GOGGLES

Other Protective Equipment:NONE

Supplemental Safety and Health

NK

===== Physical/Chemical Properties =====

Boiling Pt:B.P. Text:-452.1F

Vapor Density:0.01114@0C

Spec Gravity:0.138 AIR=1 @32F

Solubility in Water:0.861% BY VOL

@ 68F

Appearance and Odor:HELIUM IS COLORLESS AND ODORLESS IN BOTH THE GASEOUS AND LIQUID STATES.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YES

NONE

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:NONE

===== Disposal Considerations =====

Waste Disposal Methods:ALLOW LIQ HELIUM TO EVAP IN A WELL VENTED LOCATION. VENT HELIUM GAS SLOWLY TO WELL VENTED OUTDOOR LOCA. DO NOT

ATTEMPT TO DISPOSE OF RESIDUAL HELIUM IN COMPRESSED GAS CYL'S.
RETURN CYL'S TO AIR PRODUCTS W/RESIDUAL PRESS/VALVE TIGHTLY
CLOSED/CAP IN PLACE

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