

AIR PRODUCTS AND CHEMICALS, INC. -- HELIUM -- 6830-00-169-0789

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

Product ID:HELIUM

MSDS Date:07/10/1986

FSC:6830

NIIN:00-169-0789

MSDS Number: BHCZP

=== Responsible Party ===

Company Name:AIR PRODUCTS AND CHEMICALS, INC.

Address:NA

Box:538

City:ALLENTOWN

State:PA

ZIP:18195

Country:US

Info Phone Num:215-481-4911

Emergency Phone Num:1-800-523-9374 IN PA:1-800-322-909

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CAGE:00742

=== 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: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:HELIUM

(FORMULA HE MW:4.003)

CAS:7440-59-7

RTECS #:

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES
Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO
Health Hazards Acute and Chronic:PERSONNEL, INCLUDING RESCUE WORKERS,
SHOULD NOT ENTER AREAS WHERE THE OXYGEN CONCENTRATION IS BELOW
19%, UNLESS PROVIDED W/SELFCONTAINED BREATHING APPARATUS OR AIRLINE
RESPIRATOR.

Explanation of Carcinogenicity:HELIUM IS A SIMPLE ASPHYXIANT AND HAS NO
TLV

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Effects of Overexposure:EXPOSURE TO OXYGEN DEFICIENT ATMOSPHERES MAY
PRODUCE DIZZINESS,NAUSEA,VOMITING, LOSS OF CONSCIOUSNESS, AND
DEATH. EXTENSIVE TISSUE DAMAGE OR BURNS CAN RESULT FROM EXPOSURE
TO LIQUID HELIUM OR COLD HELIUM VAPORS.

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

First Aid:PERSONS SUFFERING FROM LACK OF OXYGEN SHOULD BE MOVED TO
AREAS WITH NORMAL ATMOSPHERES. ASSISTED RESPIRATION & SUPPLEMENTAL
OXYGEN SHOULD BE GIVEN IF VICTIM IS NOT BREATHING. IF CRYOGENIC
LIQUID OR COLD BOIL OFF GAS CONTACTS WORKER'S SKIN OR EYES, FROZEN
TISSUES SHOULD BE FLOODED/SOAKED W/TEPID WATER(105-115F;41-46C) DO
NOT USE HOT WATER!! SHOULD SEEK MEDICAL ATTENTION IMMEDIATELY.

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===== Fire Fighting Measures =====

Flash Point:NA
Lower Limits:NA
Upper Limits:NA
Extinguishing Media:NA
Fire Fighting Procedures:NA
Unusual Fire/Explosion Hazard:NA

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

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Spill Release Procedures:AVOID CONTACT OF SKIN W/LIQUID HELIUM OR ITS
COLD BOIL OFF GAS. FLUSH LIQ SPILL W/WTR TO DISPERSE. VENTILATE
ENCLOSED AREAS TO PREVENT FORMATION OF OXYGEN DEFICIENT
ATMOSPHERES CAUSED BY EVAPORATION OF LIQUID HELIUM OR THE RELEASE
OF GASEOUS HELIUM.

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

Handling and Storage Precautions:PREVENT CONTACT OF LIQ HELIUM/COLD
BOILOFF GAS W/ SKIN.USE A SUITABLE HANDTRUCK.STORE LIQ CON

TNR &

CYLINDER IN WELL VENTL AREA.KEEP FROM SOURCES HEAT

Other Precautions:STORAGE SHOULD NOT BE A HEAVY TRAFFICKED AREA.

SEGREGATE FULL & EMPTY CYLINDERS.AVOID EXPOSURE TO AREAS WHERE SALT OR CORROSIVE CHEMICAL ARE PRESENT. STORAGE SHOULD BE FREE OF COMBUSTIBLE MATERIAL.A VOID ROLLING,DRAGGING,OR SLIDING CYLNDR.

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

Respiratory Protection:SELFCONTAINED BREATHING APPARATUS IN OXYGEN DEFICIENT ATMOSPHERES. CAU

TION!! RESPIRATORS WILL NOT FUNCTION.

USE MAY RESULT IN ASPHYXIATION.

Ventilation:NATURAL OR MECHANICAL WHERE GAS IS PRESENT. VENTS SHOULD BE SITUATED TO AVOID HIGHER THAN NORML CONCENTRATION OF HELIUM

Protective Gloves:LOOSE FITTING OF IMPERMEABLE AS LEATHER

Eye Protection:SAFETY GLASSES/CHEMICAL GOGGLES

Other Protective Equipment:NONE

Supplemental Safety and Health

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

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

Vapor Pres:NA

Vapor

Density:0.01114

Spec Gravity:1 ATM 0.138

Solubility in Water:1ATM0.861% BY VOLUME

Appearance and Odor:HELIUM IS COLORLESS & ODORLESS IN BOTH GASEOUS & LIQUID STATES

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

Stability Indicator/Materials to Avoid:YES

NONE

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:NONE

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

Waste Disposal Methods:ALLOW LIQUID HELIUM TO EVAPORATE IN A WELL

VENTILATED LOCATION REMOTE FROM WORK AREAS. DO NOT ATTEMPT TO DISPOSE RESIDUAL HELIUM IN COMPRESSED GAS CYLINDERS. VENT HELIUM GAS SLOWLY TO A WELL VENTILATED OUTDOORS LOCATION REMOTE FROM WORK AREAS.

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