

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
2
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 #:

===== 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 ASPHYXIAN 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.

===== 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.

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

Flash Point:NA

Lower Limits:NA

Upper Limits:NA

Extinguishing Media:NA

Fire Fighting Procedures:NA

Unusual Fire/Explosion Hazard:NA

===== 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.

===== 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.

===== 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

NK

===== 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

===== 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 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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