

AIR PRODUCTS AND CHEMICALS INC. -- HELIUM -- 6830-00-660-0027

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

Product ID:HELIUM

MSDS Date:03/01/1982

FSC:6830

NIIN:00-660-0027

MSDS Number: BRQDQ

=== 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:215-481-4911

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:GENERAL ELECTRIC CORPORATE RESEARCH & DEVELOPMENT

Address:RIVER RD BLDG K-1

Box:8

City:SCHENECTADY

State:NY

ZIP:12301

Country:US

Phone:518-387-5000

CAGE:28339

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

Ingred Name:HELIUM GAS

CAS:7440-59-7

RTECS #:MH6520000

Fraction by Wt: >99%

Other REC Limits:SIMPLE ASPHYXIAN

===== 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:INHALATION: HELIUM IS A SIMPLE
ASPHYXIAN, IT CAN DISPLACE AIR IN ENCLOSED SPACES LOWERING OXYGEN
LEVELS NECESSARY FOR LIFE. BREATHING MIXTURES OF HELIUM AND AIR
WITH OXYGEN LEVEL BELOW 15% MAY RESULT IN LOSS OF COORDINATION,
CONFUSION
AND COLLAPSE. CONTACT WITH COLD GAS OR LIQUID MAY CAUSE
FREEZE BURNS.
Effects of Overexposure:FATIGUE, SLEEPINESS, LOSS OF COORDINATION,
CONFUSION, COLLAPSE, FREEZE BURNS.
Medical Condition Aggravated by Exposure:BREATHING PROBLEMS, HYPOXIA.

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

First Aid:INHALE: GET PROMPT MEDICAL ATTENTION IN ALL OVEREXPOSURE
CASES. USE SCBA. QUICKLY REMOVE TO FRESH AIR. IF UNCONSCIOUS GIVE
CPR AND OXYGEN. SKIN/EYE:IN CASE OF FREEZING
OR CRYOGENIC "BURNS"
CAUSED BY RAPIDLY EVAPORATING LIQUID, WASH WITH LOTS OF TEPID
WATER. PROTECT EYES W/LIGHT BANDAGE IF CANNOT TOLERATE LIGHT.

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

Flash Point:NON-FLAMMABLE
Extinguishing Media:NONFLAMMABLE, INERT GAS. USE ANY EXTINGUISHING
MEDIA WHICH IS SUITABLE FOR THE SURROUNDING FIRE.
Fire Fighting Procedures:FIRE FIGHTERS SHOULD WEAR PROTECTIVE CLOTHING
AND SELF-CONTAINED BREATHING APPARATUS.
Unusual Fire
/Explosion Hazard:CYLINDERS MAY EXPLODE IN THE HEAT OF
FIRE. CYLINDERS SHOULD BE COOLED WITH WATER TO PREVENT RUPTURE OF
STORAGE CYLINDERS.

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

Spill Release Procedures:EVACUATE ALL PERSONNEL FROM AFFECTED AREAS.
USE APPROPRIATE PROTECTIVE EQUIPMENT (WEAR SCBA). STOP LEAK IF IT
CAN BE DONE SAFELY. CONTACT LOCAL SAFETY OFFICER FOR EMERGENCY
ASSISTANCE.

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

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Handling and Storage Precautions:STORE IN A WELL-VENTILATED, LOW-FIRE AREA. PROTECT CONTAINERS FROM PHYSICAL DAMAGE. FOLLOW GENERAL RULES FOR HANDLING COMPRESSED GASES.
Other Precautions:DO NOT DRAG,SLIDE,ROLL CYLINDERS. USE HANDTRUCK FOR MOVING. USE PRESSURE REDUCING REGULATOR WHEN CONNECTING CYLINDER TO LOWER PRESSURE PIPING/SYSTEMS. PROTECT CYLINDERS FROM PHYSICAL DAMAGE. USE CHECK VALVE/TRAP IN DISCHARGE LINE.

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

Respiratory Protection:POSITIVE PRESSURE AIR LINE WITH MASK OR SELF-CONTAINED BREATHING APPARATUS SHOULD BE AVAILABLE FOR EMERGENCY USE.
Ventilation:LOCAL EXHAUST TO PREVENT ACCUMULATION OF HIGH CONCENTRATIONS SO AS TO REDUCE OXYGEN LEVEL IN AIR TO LESS THAN 19.5%.
Protective Gloves:INSULATING GLOVES
Eye Protection:SAFETY GOGGLES.
Other Protective Equipment:SAFETY SHOES. PROTECTIVE CLOTHING AS REQUIRED BY USE CONDITIONS.
Work Hygienic Practices:EQUIPMENT SHOULD BE CHECKED FOR LEAKS BEFORE USING IN CONFINED AREA.
Supplemental Safety and Health
STORE IN COOL, DRY, WELL-VENT AREA OF NON- COMBUSTIBLE CONSTRUCTION AWAY FROM HEAVILY TRAFFICKED AREAS/EMERGENCY EXITS. KEEP STORAGE TEMPS BELOW 130 F. STORE UPRIGHT & FIRMLY SECURED. USE "FIRST IN-FIRST OUT" INVENTORY. DON'T TRANSPORT CYLINDER OF CRYOGENIC LIQUID IN ENCLOSED SPACE. GE P/N: D27A11.

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

HCC:G3
Boiling Pt:B
.P. Text:-452F,-269C
Vapor Density:0.138
Solubility in Water:NEGLIGIBLE
Appearance and Odor:COLORLESS, ODORLESS GAS OR A CRYOGENIC LIQUID.
Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES
DO NOT STORE CRYOGENIC LIQUID IN CARBON STEEL CYLINDERS.
Stability Condition to Avoid:HIGH TEMPERATURES.
Hazardous Decomposition Products:NONE

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

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te Disposal Methods:REMOVE LEAKING CYLINDERS OUTDOORS, ALLOW GAS TO DISCHARGE AT A MODERATE RATE. CLOSE VALVE AND RETURN TO SUPPLIER MARKED DEFECTIVE. FOLLOW FEDERAL, STATE AND LOCAL REGULATIONS.

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