

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 Identif

ication ===

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 ASPHYXANT

=====
===== 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
ASPHYXANT, 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 WITH 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 =====

=====

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 =====

Was

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.

Disclaimer (provided with this information by the compiling agencies):

This information is formulated for use by elements of the Department of Defense. The United States of America in no manner whatsoever, expressly or implied, warrants this information to be accurate and disclaims all li

ability for its use. Any person utilizing this document should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation.