

CRYOGENIC RARE GAS LABS -- HELIUM/OXYGEN/NITROGEN/KRYPTON-85 GAS MIXTU --  
5840-01-274-6624

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

Product ID:HELIUM/OXYGEN/NITROGEN/KRYPTON-85 GAS MIXTU

MSDS Date:05/25/1988

FSC:5840

NIIN:01-274-6624

MSDS Number: BRQSL

=== Responsible Party ===

Company Name:CRYOGENIC RARE GAS LABS

Address:913 COMMERCE CIRCLE

City:HANAHAN

State:SC

ZIP:29406

Country:US

Info Phone Num:803-

747-0956

Emergency Phone Num:803-747-0956/800-424-9300(CHEMTREC)

CAGE:7U103

=== Contractor Identification ===

Company Name:CRYOGENIC RARE GAS

Address:913 COMMERCE CIRCLE

Box:City:HANAHAN

State:SC

ZIP:29406

Country:US

Phone:843-747-0956

CAGE:7U103

Company Name:EG AND G INC/ELECTRIC COMPONENTS DIV

Address:35 CONGRESS ST

Box:City:SALEM

State:MA

ZIP:01970-5507

Country:US

CAGE:7T714

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

Ingred Name:HELIUM/OXYGEN/NITROGEN/KRYPTON-85 GA

S MIXTURE

Fraction by Wt: 100%

Other REC Limits:1250 MREM/QUARTER

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

LD50 LC50 Mixture:TLV IS 1250 MILLIREM/QUARTER,WHOLE BODY

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

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

Health Hazards Acute and Chronic:ACUTE- OXYGEN BELOW 21% MAY CAUSE  
DIZZINESS, HEADACHE, NAUSEA & LOSS OF CONSCIOUSNESS. OXYGEN ABOVE  
21% MAY CAUSE ASPHYXIATION, CHEST PAIN AND A

VARIETY OF CENTRAL

NERVOUS SYSTEM MANIFESTATIONS INCLUD ING TINGLING EXTREMITIES.

RADIATION SICKNESS MAY CAUSE NAUSEA, VOMITING, DIARRHEA AND  
DEPRESSION. CHRONIC- NONE LISTED.

Explanation of Carcinogenicity:NONE SPECIFIED BY MANUFACTURER.

Effects of Overexposure:OXYGEN BELOW 21% MAY CAUSE DIZZINESS, HEADACHE,  
NAUSEA & LOSS OF CONSCIOUSNESS. OXYGEN ABOVE 21% MAY CAUSE CHEST  
PAIN. RADIATION MAY CAUSE NAUSEA, VOMITING, DIARRHEA AND  
DEPRESSION.

Medical Cond Aggravated by Expo

sure:NONE SPECIFIED BY MANUFACTURER.

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

First Aid:INHALATION: MOVE VICTIM TO FRESH AIR. IF BREATHING HAS  
STOPPED, GIVE ARTIFICIAL RESPIRATION AND, IF NEEDED, OXYGEN. GET  
MEDICAL AID. RADIATION SICKNESS: GET MEDICAL AID IMMEDIATELY.

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

Extinguishing Media:NONE SPECIFIED BY MANUFACTURER.

Fire Fighting Procedures:OXYGEN IS NON-FLAMMABLE BUT SUPPORTS AND

VIGOROUSLY ACCELERATES COMBUSTION OF FLAMMABLES.

Unusual Fire/Explosion Hazard:SOME MATERIALS WHICH ARE NONFLAMMABLE IN  
AIR WILL BURN IN AN OXYGEN-ENRICHED ATMOSPHERE.

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

Spill Release Procedures:SHUT OFF THE FLOW OF GAS. VENTILATE THE AREA.  
KRYPTON-85 WILL DISPERSE.

Neutralizing Agent:NONE SPECIFIED BY MANUFACTURER.

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

Handling and Storage Precautions:ST

ORE AND USE CYLINDERS IN

WELL-VENTILATED AREA AWAY FROM EXCESSIVE HEAT.

Other Precautions:MAKE SURE ALL RESIDUAL VAPORS ARE REMOVED PRIOR TO BEGINNING REPAIR AND MAINTENANCE. MOVE CYLINDERS WITH A HAND TRUCK.

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

Respiratory Protection:WEAR NIOSH-APPROVED SELF CONTAINED BREATHING APPARATUS IF NEEDED.

Ventilation:MECHANICAL

Protective Gloves:LEATHER WORK GLOVES

Eye Protection:SAFETY GOGGLES

Other Protective Equipment:EY

E WASH STATION, QUICK DRENCH SHOWER AND SAFETY SHOES

Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.

Supplemental Safety and Health

HELIUM, NITROGEN AND KRYPTON-85 ARE NON- TOXIC, BUT EACH MAY ACT AS A SIMPLE ASPHYXIANT. OXYGEN IS NONTOXIC. KRYPTON-85 IS A RADIOACTIVE ISOTOPE. RADIATION EMITTED: BETA PARTICLES AT 0.67 MEV AND GAMMA RAYS AT 0.52 MEV.

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

HCC:A1

Solub

ility in Water:SLIGHT

Appearance and Odor:COLORLESS, ODORLESS GAS WITH HALF LIFE OF 10.76 YEARS

Percent Volatiles by Volume:100

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

Stability Indicator/Materials to Avoid:YES

OTHER RADIOACTIVE MATERIALS, FLAMMABLES

Stability Condition to Avoid:EXCESSIVE HEAT, FIRE

Hazardous Decomposition Products:BETA PARTICLES AND GAMMA RAYS

Conditions to Avoid Polymerization:KEEP AWAY FROM EXCESS HEAT

===== Disposal Consider

ations =====

Waste Disposal Methods:REPLACE THE CYLINDER VALVE OUTLET PLUG. REPLACE THE CYLINDER CAP. IF NO LEAKS ARE OBSERVED, RETURN THE CYLINDER TO YOUR SUPPLIER.

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