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 GAMM A
RAYS AT O.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.