

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

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===== 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:8

03-747-0956

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

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

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

GAS 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 E

xposure: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

:STORE 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.

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===== 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
:EYE 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.

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

HCC:A1
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lubility in Water:SLIGHT
Appearance and Odor:COLORLESS, ODORLESS GAS WITH HALF LIFE OF 10.76 YEARS
Percent Volatiles by Volume:100

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===== 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

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===== Disposal Consi

derations =====

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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