CRYOGENIC RARE GAS LABS -- HELIUM/OXYGEN/NITROGEN/KRYPTON-85 GAS MIXTU -- 5920-00-827-5751

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

Product ID:HELIUM/OXYGEN/NITROGEN/KRYPTON-85 GAS MIXTU
MSDS Date:05/25/1988
FSC:5920
NIIN:00-827-5751
MSDS Number: BPPMH
=== 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 & G INC,ELECTRON DEVICES GROUP
Address:35 CONGRESS
Box:City:SALEM
State:MA
ZIP:01970-5507
Country:US
Phone:516-643-2120
CAGE:25506

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

Ingred Name:HELIUM-OXYGEN MIXTURE
CAS:58933-55-4
RTECS #:MH6550000
Other REC Limits:NONE RECOMMENDE

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Ingred Name:NITROGEN
CAS:7727-37-9
RTECS #:QW9700000
Other REC Limits:NONE RECOMMENDED
ACGIH TLV:ASPHYXIANT; 9293

Ingred Name:KRYPTON-85 (30 MICROCURIES MAXIMUM)
Other REC Limits:NONE RECOMMENDED

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

LD50 LC50 Mixture:TLV = 1250 MILLIREM/QUARTER (WHOLE BODY)
Routes of Entry: Inhalation:YES Skin:NO Ingestion:NO
Health Hazards Acute and Chronic:ACUTE - OXYGEN BELOW 21 PERCENT MAY CAUSE DIZZINESS, HEADACHE, NAUSEA, AND LOS
S OF CONSCIOUSNESS.
OXYGEN ABOVE 21 PERCENT MAY CAUSE CHEST PAIN. RADIATION MAY CAUSE NAUSEA, VOMITING, DIARRHEA, AND DEPR ESSION. CHRONIC - NONE KNOWN.
Effects of Overexposure:OXYGEN BELOW 21 PERCENT MAY CAUSE DIZZINESS, HEADACHE, NAUSEA, AND LOSS OF CONSCIOUSNESS. OXYGEN ABOVE 21 PERCENT MAY CAUSE CHEST PAIN. RADIATION MAY CAUSE NAUSEA, VOMITING, DIARRHEA, AND DEPRESSION.
Medical Cond Aggravated by Exposure:NONE KNOWN

========== First Aid Measures ==========
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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 HELP IMMEDIATELY.

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

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.

========== 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 CYLINDE

RS 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:EYE WASH STATION, QUICK DRENCH SHOWER, SAFETY SHOES
Work Hygienic Practices:OBSERVE GOOD PERSONAL HYGIENE PRACTICES AND RECOMMENDED PROCEDURES.
Supplemental Safety and Health
HELIUM, NITROG
EN, AND KRYPTON-85 ARE NON-TOXIC, BUT EACH MAY ACT AS A SIMPLE ASPHYXIANT. OXYGEN IS NONTOXIC. KRYPTON-85 IS A RADIOACTIVE ISOTOPE (30 MICROCURIES MAXIMUM).

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

HCC:A2
Solubility 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 R
ADIOACTIVE MATERIALS, FLAMMABLES
Stability Condition to Avoid:EXCESSIVE HEAT, FIRE
Hazardous Decomposition Products:BETA PARTICLES AND GAMMA RAYS

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

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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