

LINWELD INC -- HELIUM

=====
MSDS Safety Information
=====

FSC: 6830
NIIN: 00-660-0026
MSDS Date: 10/29/1992
MSDS Num: CLNCY
Product ID: HELIUM
MFN: 01
Responsible Party
Cage: OTEA3
Name: LINWELD INC
Address: 1225 "L" STREET, SUITE 600
City: LINCOLN NE 68508
Info Phone Number:
402-477-6987
Emergency Phone Number: 402-786-5277
Resp. Party Other MSDS No.: 4
Review Ind: Y
Published: Y

=====
Contractor Summary
=====

Cage: OTEA3
Name: LINWELD INC
Address: 1225 "L" STREET, SUITE 600
City: LINCOLN NE 68508
Phone: 402-477-6987

=====
Item Description Information
=====

Item Name
: HELIUM, TECHNICAL
Specification Number: BB-H-1168A
Type/Grade/Class: GRADE A
Unit of Issue: CF
UI Container Qty: 0
Type of Container: UNKNOWN

=====
Ingredients
=====

Cas: 7440-59-7
RTECS #: MH6520000
Name: HELIUM

=====
Health Hazards Data
=====

Route Of Entry Inds - Inhalation: YES
Carcinogenicit

y Inds - NTP: NO

IARC: NO

OSHA: NO

Effects of Exposure: PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF OVEREXPOSURE TO HELIUM. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. EFFECTS OF HIGH CONCENTRATIONS SO AS TO DISPLACE THE OXYGEN IN THE AIR NECESSARY FOR LIFE ARE HEADACHE, DIZZINESS, LABORED BREATHING AND EVENTUAL UNCONSCIOUSNESS. BREATHING MIXTURES OF HELIUM WITH ADEQUATE OXYGEN TO SUPPORT LIFE MODIFIES THE VOICE SOUND SO THAT IT IS HIGHER "

PITCHED". HELIUM IS NONTOXIC BUT THE LIBERATION OF A LARGE AMOUNT IN A CONFINED AREA COULD DISPLACE THE AMOUNT OF OXYGEN IN THE AIR NECESSARY TO SUPPORT LIFE.

Explanation Of Carcinogenicity: HELIUM IS NOT LISTED IN THE IARC, NTP OR BY OSHA AS A CARCINOGEN OR POTENTIAL CARCINOGEN.

Signs And Symptoms Of Overexposure: EFFECTS OF EXPOSURE TO HIGH CONCENTRATIONS SO AS TO DISPLACE THE OXYGEN IN THE AIR NECESSARY FOR LIFE ARE HEADACHE, DIZZINESS, LABORED BREATHING AND EVENTUAL UNCONSCIOUSNESS . BREATHING MIXTURES

OF HELIUM WITH ADEQUATE OXYGEN TO SUPPORT LIFE MODIFIES THE VOICE SOUND SO THAT IT IS HIGHER PITCHED. HELIUM IS NONTOXIC BUT THE LIBERATION OF A LARGE AMOUNT IN A CONFINED AREA COULD DISPLACE THE AMOUNT OF OXYGEN IN THE AIR NECESSARY TO SUPPORT LIFE.

Medical Cond Aggravated By Exposure: PERSONS IN ILL HEALTH WHERE SUCH ILLNESS WOULD BE AGGRAVATED BY EXPOSURE TO HELIUM SHOULD NOT BE ALLOWED TO WORK WITH OR HANDLE THIS PRODUCT.

First Aid: INHALED: CONSCIOUS PERSONS

SHOULD BE ASSISTED TO AN UNCONTAMINATED

AREA AND INHALE FRESH AIR. QUICK REMOVAL FROM THE CONTAMINATED AREA IS MOST IMPORTANT. UNCONSCIOUS PERSONS SHOULD BE MOVED TO AN UNCONTAMINATED AREA, GIVEN ASSISTED RESPIRATION AND SUPPLEMENTAL OXYGEN. FURTHER TREATMENT SHOULD BE SYMPTOMATIC AND SUPPORTIVE.

=====
Handling and Disposal
=====

Spill Release Procedures: EVACUATE ALL PERSONNEL FROM AFFECTED AREA. USE

APPROPRIATE PROTECTIVE EQUIPMENT. IF LEAK IS IN CONTAINER OR CONTAINER VALVE, CONTACT YOUR CLOSEST SUPPLIER LOCATION OR CALL THE EMERGENCY TELEPHONE LISTED HEREIN.

Waste Disposal Methods: DO NOT ATTEMPT TO DISPOSE OF WASTE OR UNUSED QUANTITIES. RETURN THE SHIPPING CONTAINER PROPERLY LABELED, WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION CAP IN PLACE TO YOUR SUPPLIER. FOR EMERGENCY DISPOSAL ASSISTANCE, CONTACT YOUR CLOSEST SUPPLIER LOCATION OR

CALL THE EMERGENCY TELEPHONE NUMBER LISTED HEREIN.

Handling And Storage Precautions: USE ONLY IN WELL-VENTILATED AREAS. VALVE PROTECTION CAPS MUST REMAIN IN PLACE UNLESS CONTAINER IS SECURED WITH VALVE OUTLET PIPED TO USE POINT. DO NOT DRAG, SLIDE OR ROLL CYLINDERS. USE A SUITABLE HAND TRUCK FOR CYLINDER MOVEMENT. USE A PRESSURE REDUCING REGULATOR (SEE BELOW)

Other Precautions: WHEN CONNECTING CYLINDER TO LOWER PRESSURE (<3,000 PSIG) PIPING OR SYSTEMS. DO NOT HEAT CYLINDER BY ANY MEANS TO INCREASE THE DISCHARGE RATE OF PRODUCT FROM THE CYLINDER. USE A CHECK VALVE OR TRAP IN THE DISCHARGE LINE TO PREVENT HAZARDOUS BACK FLOW INTO THE CYLINDER. SEE OTHER INFORMATION.

=====
Fire and Explosion Hazard Information
=====

Flash Point Text: NA
Lower Limits: NA
Upper Limits: NA
Extinguishing Media: NONFLAMMABLE, INERT GAS.
Fire Fighting Procedures: IF CYLINDERS ARE INVOLVED IN A FIRE, SAFELY RELOCATE OR KEEP COOL WITH WATER SPRAY.
Unusual Fire/Explosion Hazard: NONE.

=====
Control Measures
=====

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 THE OXYGEN LEVEL IN THE AIR TO LESS THAN 18 Molar Percent.
Protective Gloves: PROTECTIVE GLOVES OF ANY MATERIAL
Eye Protection: SAFETY GOGGLES OR GLASSES
Other Protective Equipment: SAFETY SHOES.

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

HCC: G3
Boiling Point: =-268.9C, -452.1F
Melt/Freeze Pt: =-271.2C, -456.5F
Vapor Pres: -450.3
Spec Gravity: .138
Evaporation Rate & Reference: NA (GAS)
Solubility in Water: NEGLIGIBLE
Appearance and O

odor: COLORLESS, ODORLESS GAS.

=====
Reactivity Data
=====

Stability Indicator: YES
Stability Condition To Avoid: NORMALLY STABLE.
Materials To Avoid: NONE
Hazardous Decomposition Products: NONE
Hazardous Polymerization Indicator: NO
Conditions To Avoid Polymerization: WILL NOT OCCUR.

=====
Toxicological Information
=====

=====
Ecological Information
=====

=====
MSDS Transport Information
=====

Transport Information: DOT I.D. NO. UN 1046. DOT HAZARD CLASS: DIVISION 2.2

=====
Regulatory Information
=====

=====
Other Information
=====

Other Information: STORAGE: PROTECT CYLINDERS FROM PHYSICAL DAMAGE. STORE IN COOL, DRY, WELL-VENTILATED AREA AWAY FROM HEAVILY TRAFFICKED AREAS AND EMERGENCY EXITS. DO NOT ALLOW THE TEMPERATURE WHERE CYLINDERS ARE STORED TO EXCEED 125F. CYLINDERS SHOULD BE STORED UPRIGHT AND FIRMLY SECURED TO PREVENT FALLING OR BEING KNOCKED OVER. FULL AND EMPTY CYLINDERS SHOULD BE SEGREGATED. USE A FIRST IN-FIRST OUT INVENTORY SYSTEM TO PREVENT FULL CYLINDERS BEING STORED FOR EXCESSIVE PERIODS OF TIME.

=====
Transportation Information
=====

Responsible Party Code: 0TEA3
Trans ID NO: 159211
Product ID: HELIUM
MSDS Prepared Date: 10/29/1992
Review Date: 10/09/2001
MFN: 1
Multiple KIT Number: 0
Unit Of Issue: CF
Container QTY: 0
Type Of Container: UN

KNOWN

=====
Detail DOT Information
=====

DOT PSN Code: GZR
DOT Proper Shipping Name: HELIUM, COMPRESSED
Hazard Class: 2.2
UN ID Num: UN1046
Label: NONFLAMMABLE GAS
Packaging Exception: 306
Non Bulk Pack: 302
Bulk Pack: 302,314
Max Qty Pass: 75 KG
Max Qty Cargo: 150 KG
Vessel Stow Req: A
Water/Ship/Other Req: 85
=====

=====
Detail IMO Information
=====

IMO PSN Code: HWT
IMO Proper Shipping Name: HELIUM, COMPRESSED
IMDG Page Number: 2144
UN Number: 1046
UN Hazard Class: 2(2.2)
IMO Packaging Group: -
Subsidiary Risk Label: -
EMS Number: 2-04
MED First Aid Guide NUM: NON
=====

=====
Detail IATA Information
=====

IATA PSN Code: NCJ
IATA UN ID Num: 1046
IATA Proper Shipping Name: HELIUM, COMPRESSED
IATA UN
Class: 2.2
IATA Label: NON-FLAMMABLE GAS
Packing Note Passenger: 200
Max Quant Pass: 75KG
Max Quant Cargo: 150KG
Packaging Note Cargo: 200
=====

=====
Detail AFI Information
=====

AFI PSN Code: NCJ
AFI Proper Shipping Name: HELIUM, COMPRESSED
AFI Hazard Class: 2.2
AFI UN ID NUM: UN1046
Special Provisions: P5
Back Pack Reference: A6.3, A6.6
=====

HAZCOM

Label

=====
Product ID: HELIUM
Cage: 0TEA3
Company Name: LINWELD INC
Street: 1225 "L" STREET, SUITE 600
City: LINCOLN NE
Zipcode: 68508
Health Emergency Phone: 402-786-5277
Label Required IND: Y
Date Of Label Review: 10/09/2001
Status Code: A
Origination Code: F
Signal Word: CAUTION
Respiratory Protection IND: YES
Health Hazard: Slight
Contact Hazard: None
Fire Hazard: None
Reactivity Hazard: None

Hazard And Precautions: PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF

OVEREXPOSURE TO HELIUM. RESCUE PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. EFFECTS OF HIGH CONCENTRATIONS SO AS TO DISPLACE THE OXYGEN IN THE AIR NECESSARY FOR LIFE ARE HEADACHE, DIZZINESS, LABOR-INTENSIVE BREATHING AND EVENTUAL UNCONSCIOUSNESS. BREATHING MIXTURES OF HELIUM WITH ADEQUATE OXYGEN TO SUPPORT LIFE MODIFIES THE VOICE SOUND SO THAT IT IS HIGHER "PITCHED". HELIUM IS NONTOXIC BUT THE LIBERATION OF A LARGE AMOUNT IN A CONFINED AREA COULD DISPLACE THE AMOUNT OF OXYGEN IN THE AIR NECESSARY TO SUPPORT LIFE.

=====
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, states, or intends said information to have any application, use or viability by or to any person or persons outside the Department of Defense nor any person or persons contracting with any instrumentality of the United States of America and disclaims all liability for such use. Any person utilizing this instruction who is not a military or civilian employee of the United States of America should seek competent professional advice to verify and assume responsibility for the suitability of this information to their particular situation regardless of similarity to a corresponding Department of Defense instruction.

ense or other government situation.