

LINWELD INC -- HELIUM

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MSDS Safety Information  
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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

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

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Item Description Information  
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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

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

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Health Hazards Data  
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Route Of Entry Inds - Inhalation: YES  
Carcinogenicity

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 "P

ITCHED". 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 PERSON

S 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.

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Handling and Disposal  
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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 C

ALL 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.

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Fire and Explosion Hazard Information  
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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.

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Control Measures  
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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.

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Physical/Chemical Properties  
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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 Od

or: COLORLESS, ODORLESS GAS.

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Reactivity Data  
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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.

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

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Regulatory Information  
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Other Information  
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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 STORE D 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 SYST EM TO PREVENT FULL CYLINDERS BEING STORED FOR EXCESSIVE PERIODS OF TIME.

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Transportation Information  
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Responsible Party Cage: 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: UNK

NOWN

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Detail DOT Information  
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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  
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Detail IMO Information  
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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  
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Detail IATA Information  
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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  
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Detail AFI Information  
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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  
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HAZCOM

Label

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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, 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 CONFINE

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