

DIGITAL DEVELOPMENT CORPORATION. -- HELIUM -- 6830-01-054-8243

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

Product ID:HELIUM

MSDS Date:06/13/1988

FSC:6830

NIIN:01-054-8243

MSDS Number: BLDBV

=== Responsible Party ===

Company Name:DIGITAL DEVELOPMENT CORPORATION.

Address:20400 PLUMMER STREET

Box:2198

City:CHATSWORTH

State:CA

ZIP:91311

Country:US

Info Phone Num:818-882-0030

Emergency Phone Num:818-882-0030

P

reparer's Name:DOD-HMIS (DGSC-SSH0

CAGE:11160

=== Contractor Identification ===

Company Name:DIGITAL DEVELOPMENT CORPORATION

Address:20400 PLUMMER STREET

Box:2198

City:CHATSWORTH

State:CA

ZIP:91311

Phone:818-882-0030

CAGE:11160

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

Ingred Name:HELIUM (FORMULA HE MW:4.003)

CAS:7440-59-7

RTECS #:NH6520000

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

Routes of Entry: Inhalation:YES Skin:YES Ingestion:YES

Reports of Carcinogenicity:NTP:NO IARC:NO OSHA:NO

Health Hazards Acute and Chronic:HELIUM IS ODORLESS AND NONTOXIC BUT MAY PRODUCE SUFFOCATION BY DILUTING THE CONCENTRATION OF OXYGEN IN AIR BELOW LEVEL NECESSARY TO SUPPORT LIFE. EXTENSIVE TISSUE DAMAGE OR BURNS CAN RESULT FROM EXPOSURE TO LIQUID HELIUM OR COLD HELIUM VAPORS.

Explanation of Carcinogenicity:HELIUM IS A SIMPLE ASPHYXIANT AND HAS NO THRESHOLD LIMIT VALUE (TLV). HELIUM NOT LISTED AS CARCINOGEN BY NTP/IARC/OSH

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Effects of Overexposure:DIZZINESS,NAUSEA,VOMITING,LOSS OF CONSCIOUSNESS. DEATH MAY RESULT FROM ERRORS IN JUDGEMENT,CONFUSION,OR LOSS OF CONSCIOUSNESS WHICH PREVENT SELF-RESCUE. AT LOW OXYGEN CONCENTRATIONS UNCONSCIOUSNESS AND DEATH MAY OCCUR IN SECONDS WITHOUT WARNING.

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First Aid Measures  
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First Aid:ASSISTED RESPIRATION AND SUPPLEMENTAL OXYGEN SHOULD BE GIVEN IF THE VICTIM IS NOT BREATHING. IF CRYOGENIC LIQUID OR COLD

BOIL-OFF GAS CONTACTS A WORKERS SKIN OR EYES, FROZEN TISSUES SHOULD BE FLOODED OR SOAKED WITH TEPID WATER (105-115F; 41-46C) DO NOT USE HOT WATER.CRYOGENIC BURNS WHICH RESULT IN BLISTERING OR DEEPER TISSUE FREEZING SHOULD BE SEEN PROMPTLY BY A PHYSICIAN.

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Fire Fighting Measures  
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Flash Point:NONE LISTED  
Lower Limits:NONE LISTED  
Upper Limits:NONE LISTED

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Accidental Release Measures  
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Spill Release Proc

cedures:AVOID CONTACT OF SKIN WITH LIQUID HELIUM OR ITS COLD BOIL-OFF GAS.FLUSH LIQUID SPILL WITH WATER TO DISPERSE.VENTILATE ENCLOSED AREAS TO PREVENT FORMATION OF OXYGEN-DEFICIENT ATMOSPHERES CAUSED BY EVAPORATION OF LIQ HELIUM OR RELEASE OF GASEOUS HELIUM.

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Handling and Storage  
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Handling and Storage Precautions:PREVENT ENTRAPMENT OF LIQUID IN CLOSED SYSTEMS. USE IN WELL VENTED AREAS. AVOID EXPOSURE TO AREAS WHERE SAL OR CORRO

SIVE CHEMICALS ARE PRESENT.

Other Precautions:LIQUID HELIUM IN EXPOSED PIPING CAN CAUSE AIR TO CONDENSE AND LIQUEFY. UTILIZE OXYGEN-COMPATIBLE INSULATING MATERIALS AND MINIMIZE EXPOS PIPING AREAS. AVOID USE OF CARBON STEEL AND OTHER METAL WHICH B ECOME BRITTLE A LOW TEMPERATURES.

===== Exposure Controls/Personal Protection =====

Respiratory Protection:USE SELF-CONTAINED BREATHING APPARATUS IN OXYGEN-DEFICIENT ATMOSPHERES. CAUTION-AIR PURIFYING RESPIRATORS

WILL NOT FUNCTION. THEIR USE MAY RESULT IN ASPHYXIATION.

Ventilation:NATURAL OR MECHANICAL WHERE GAS IS PRESENT.

Protective Gloves:LEATHER IS RECOMMENDED.

Eye Protection:SAFETY GLASSES-SEE BELOW.

Other Protective Equipment:NONE.

Supplemental Safety and Health

EYE-SAFETY GLASSES ARE RECOMMENDED WHEN HANDLING HIGH-PRESSURE CYLINDERS. USE CHEMICAL GOGGLES OR A FACESHIELD WITH SAFETY GLASSES WHEN HANDLING LIQUID. VENTILATION-VENTS SHOULD BE SITUATED TO AVOID HI GHER THAN NORMAL CONCENTRAT

ION OF HELIUM IN WORK AREA. MSDS

COPIED FROM ANOTHER HELIUM MSDS. CONTRACT BEFORE HCS.

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

HCC:G3

Boiling Pt:B.P. Text:-452F/268C

Vapor Density:32F0.01114

Spec Gravity:23F(OC)1ATM.138

Solubility in Water:68F(20C)1 ATM 0.861%

Appearance and Odor:HELIUM IS COLORLESS AND ODORLESS IN BOTH GASEOUS AND LIQUID STATES.

===== Stability and Reactivity Data =====

Stability Indicator/Materials to Avoid:YE

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NONE

Stability Condition to Avoid:NONE

Hazardous Decomposition Products:NONE

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

Waste Disposal Methods:ALLOW LIQUID HELIUM TO EVAP IN A WELL-VENT LOCATION REMOTE FROM WORK AREAS. VENT HELIUM GAS SLOWLY TO A WELL-VENT OUTDOOR LOCATION REMOTE FOR WORK AREA.DO NOT ATTEMPT TO DISPOSE OF RESIDUAL HELIUM IN COMPRESSE GAS CYLINDERS.

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