MATERIAL SAFETY DATA SHEET

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SECTION 1. - - - - - - - - - - CHEMICAL IDENTIFICATION- - - - - - - - - -
CATALOG #: 295345
NAME: HELIUM, 99.995+%

SECTION 2. - - - - - - COMPOSITION/INFORMATION ON INGREDIENTS - - - - - -
CAS #: 7440-59-7
MF: HE
EC NO: 231-168-5
SYNONYMS
HELIUM (ACGIH:OSHA) * HELIUM, COMPRESSED (UN1046) (DOT) * HELIUM, REFRIGERATED LIQUID (CRYOGENIC LIQUID) (UN1963) (DOT) * UN1046 (DOT) * UN1963 (DOT) *

SECTION 3. - - - - - - - - - - - HAZARDS IDENTIFICATION - - - - - - - - - -
CAUTION: NONFLAMMABLE HIGH-PRESSURE GAS.
LABEL PRECAUTIONARY STATEMENTS
IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT.
CYLINDER TEMPERATURE SHOULD NOT EXCEED 125 F(52 C).
DO NOT PUNCTURE OR INCINERATE THIS CYLINDER.

SECTION 4. - - - - - - - - - - - FIRST-AID MEASURES- - - - - - - - - - -
IF INHALED, REMOVE TO FRESH AIR. IF NOT BREATHING GIVE ARTIFICIAL RESPIRATION. IF BREATHING IS DIFFICULT, GIVE OXYGEN.
IF SWALLOWED, WASH OUT MOUTH WITH WATER PROVIDED PERSON IS CONSCIOUS.
CALL A PHYSICIAN.

SECTION 5. - - - - - - - - - - FIRE FIGHTING MEASURES - - - - - - - - - -
EXTINGUISHING MEDIA
USE WATER SPRAY OR FOG NOZZLE TO KEEP CYLINDER COOL. MOVE CYLINDER AWAY FROM FIRE IF THERE IS NO RISK.
SPECIAL FIREFIGHTING PROCEDURES
WEAR SELF-CONTAINED BREATHING APPARATUS AND PROTECTIVE CLOTHING TO PREVENT CONTACT WITH SKIN AND EYES.
CAUTION: NONFLAMMABLE HIGH-PRESSURE GAS.
UNUSUAL FIRE AND EXPLOSIONS HAZARDS
EMITS TOXIC FUMES UNDER FIRE CONDITIONS.
CONTAINER EXPLOSION MAY OCCUR UNDER FIRE CONDITIONS.

SECTION 6. - - - - - - - - - ACCIDENTAL RELEASE MEASURES- - - - - - - - -
EVACUATE AREA AND KEEP PERSONNEL UPWIND.
WEAR SELF-CONTAINED BREATHING APPARATUS, RUBBER BOOTS AND HEAVY RUBBER GLOVES.
SHUT OFF LEAK IF THERE IS NO RISK.
VENTILATE AREA AND WASH SPILL SITE AFTER MATERIAL PICKUP IS COMPLETE.

SECTION 7. - - - - - - - - - - HANDLING AND STORAGE- - - - - - - - - - -
REFER TO SECTION 8.

SECTION 8. - - - - - - - EXPOSURE CONTROLS/PERSONAL PROTECTION- - - - - -
CHEMICAL SAFETY GOGGLES.
COMPATIBLE CHEMICAL-RESISTANT GLOVES.
NIOSH/MSHA-APPROVED RESPIRATOR IN NONVENTILATED AREAS AND/OR FOR EXPOSURE ABOVE THE ACGIH TLV.
MECHANICAL EXHAUST REQUIRED.
SAFETY SHOWER AND EYE BATH.
DO NOT BREATHE GAS.
DO NOT GET IN EYES, ON SKIN, ON CLOTHING.
AVOID PROLONGED OR REPEATED EXPOSURE.

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WASH THOROUGHLY AFTER HANDLING.
KEEP TIGHTLY CLOSED.
CYLINDER TEMPERATURE SHOULD NOT EXCEED 125 F(52 C).
STORE AND USE WITH ADEQUATE VENTILATION.
CONTENTS UNDER PRESSURE.
WARNING: SUCK-BACK INTO CYLINDER MAY CAUSE RUPTURE.
USE BACK-FLOW-PREVENTIVE DEVICE IN PIPING.
USE WITH EQUIPMENT RATED FOR CYLINDER PRESSURE, AND OF COMPATIBLE MATERIALS OF CONSTRUCTION. CLOSE VALVE WHEN NOT IN USE AND WHEN EMPTY.
MAKE SURE CYLINDER IS PROPERLY SECURED WHEN IN USE OR STORED.

SECTION 9. - - - - - - - - PHYSICAL AND CHEMICAL PROPERTIES - - - - - - - -

APPEARANCE AND ODOR
COLORLESS GAS

PHYSICAL PROPERTIES
BOILING POINT: -268.9 C
VAPOR DENSITY: .14

SECTION 10. - - - - - - - - - -STABILITY AND REACTIVITY - - - - - - - - - -

INCOMPATIBILITIES
STORE AWAY FROM HEAT AND DIRECT SUNLIGHT.

HAZARDOUS COMBUSTION OR DECOMPOSITION PRODUCTS
NATURE OF DECOMPOSITION PRODUCTS NOT KNOWN.

SECTION 11. - - - - - - - - - - TOXICOLOGICAL INFORMATION - - - - - - - - -

ACUTE EFFECTS
MAY BE HARMFUL IF INHALED.
CAN CAUSE RAPID SUFFOCATION.
EXPOSURE CAN CAUSE:
NAUSEA, DIZZINESS AND HEADACHE

ADDITIONAL INFORMATION
AT HIGH CONCENTRATIONS HELIUM FUNCTIONS AS A SIMPLE ASPHYXIANT BY DISPLACING AIR.

RTECS #: MH6520000
HELIUM
ONLY SELECTED REGISTRY OF TOXIC EFFECTS OF CHEMICAL SUBSTANCES (RTECS) DATA IS PRESENTED HERE. SEE ACTUAL ENTRY IN RTECS FOR COMPLETE INFORMATION.

SECTION 12. - - - - - - - - - - ECOLOGICAL INFORMATION - - - - - - - - - -

DATA NOT YET AVAILABLE.

SECTION 13. - - - - - - - - - - DISPOSAL CONSIDERATIONS - - - - - - - - - -

CAUTION: NO-RETURN CYLINDER. DO NOT REUSE. EMPTY CYLINDER WILL CONTAIN HAZARDOUS RESIDUE. FOLLOW PROPER DISPOSAL TECHNIQUES.
OBSERVE ALL FEDERAL, STATE AND LOCAL ENVIRONMENTAL REGULATIONS.

SECTION 14. - - - - - - - - - - TRANSPORT INFORMATION - - - - - - - - - -

CONTACT ALDRICH CHEMICAL COMPANY FOR TRANSPORTATION INFORMATION.

SECTION 15. - - - - - - - - - - REGULATORY INFORMATION - - - - - - - - - -

EUROPEAN INFORMATION
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IN CASE OF INSUFFICIENT VENTILATION, WEAR SUITABLE RESPIRATORY EQUIPMENT.

REVIEWS, STANDARDS, AND REGULATIONS
OEL=MAK
ACGIH TLV -NONE, SIMPLE ASPHYXIANT; NO TWA 85INA8 6,725,91
MSHA STANDARD:ASPHYXIANTS/GASES
DTLWS* 3,20,73
OSHA PEL (CONSTRUC):SIMPLE ASPHYXIANT-INERT GASES AND VAPORS
CFRGBR 29,1926.55,94
OSHA PEL (SHIPYARD):SIMPLE ASPHYXIANTS - INERT GAS AND VAPOR
CFRGBR 29,1915.1000,93
OEL-AUSTRALIA:ASPHYXIANT JAN93
OEL-BELGIUM:ASPHYXIANT JAN93
OEL-HUNGARY:ASPHYXIANT JAN93
OEL-THE NETHERLANDS:ASPHYXIANT JAN93
OEL-SWITZERLAND:ASPHYXIANT JAN93
OEL-UNITED KINGDOM:ASPHYXIANT JAN93
OEL IN BULGARIA, COLOMBIA, JORDAN, KOREA CHECK ACGIH TLV
OEL IN NEW ZEALAND, SINGAPORE, VIETNAM CHECK ACGIH TLV
NOHS 1974: HZD 35925; NIS 93; TNF 5335; NOS 59; TNE 43459

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NOES 1983: HZD 35925; NIS 56; TNF 4400; NOS 51; TNE 75526; TFE 17064
EPA TSCA SECTION 8(B) CHEMICAL INVENTORY

ECTION 16. - - - - - - - - - - - OTHER INFORMATION- - - - - - - - - - - - -

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