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#### 1. IDENTIFICATION OF THE SUBSTANCE/PREPARATION AND OF THE COMPANY

Product name: Helium Compressed

Chemical formula: He

Company Name : Om Air Special Gases Khasra No.96, Khewat No.352/640, Kila No.4

Faridabad Haryana India

# 2. HAZARDS IDENTIFICATION

WARNING!

#### **EMERGENCY OVERVIEW**

Simple asphyxiant Contents under pressure

Intentional misuse of this product can cause serious lung damage or death Keep at temperatures below 52°C / 125°F

 Appearance Colorless
 Physical State Compressed gas
 Odor Odorless

OSHA Regulatory Status This material is considered hazardous by the OSHA Hazard Communication Standard

(29 CFR 1910.1200).

Potential Health Effects

Principle Routes of

Exposure Inhalation.

**Acute Toxicity** 

Inhalation Simple asphyxiant. May cause suffocation by displacing the oxygen in the air. Exposure to oxygen-de-

ficient atmosphere (<19.5%) may cause dizziness, drowsiness, nausea, vomiting, excess salivation, diminished mental alertness, loss of consciousness and death. Exposure to atmospheres containing 8-10% or less oxygen will bring about unconsciousness without warning and so quickly that the individuals cannot help or protect themselves. Lack of sufficient oxygen may cause serious injury or death.

Intentional inhalation of helium balloon gas can cause asphyxiation, lung damage, and death.

Eyes None known.

Skin None known

Skin Absorption Hazard No known hazard in contact with skin.

Ingestion None known

Chronic Effects None known

Aggravated Medical

Conditions None known

Environmental Hazard See Section 12 for additional Ecological Information.



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### 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS-No	Volume %	Chemical Formula
Helium	7440-59-7	>99	He

#### 4. FIRST AID MEASURES

Eye Contact None under normal use. Get medical attention if symptoms occur.

**Skin Contact** None under normal use. Get medical attention if symptoms occur.

Inhalation PROMPT MEDICAL ATTENTION IS MANDATORY IN ALL CASES OF INHALATION OVEREXPOSURE. RESCUE

PERSONNEL SHOULD BE EQUIPPED WITH SELF-CONTAINED BREATHING APPARATUS. Conscious inhalation victims should be assisted to an uncontaminated area and inhale fresh air. If breathing is difficult, administer oxygen. Unconscious persons should be moved to an uncontaminated area and, as necessary, given artificial resuscitation and supplemental oxygen. Treatment should be symptomatic and supportive.

Ingestions None under normal use. Get medical attention if symptoms occur.

Notes to Physician Treat symptomatically.

### 5. FIRE FIGHTING MEASURES

Flammable Properties Non-flammable

Suitable Extinguishing Media Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.

**Explosion Data** 

Sensitivity to Mechanical Impact None

Sensitivity to Static Discharge None

Specific Hazards Arising from the

Chemical

 $Cylinders\,may\,rupture\,under\,extreme\,heat.\,Continue\,to\,cool\,fire\,exposed\,cylinders\,until\,flames\,are$ 

extinguished. Damaged cylinders should be handled only by specialists.

Protective Equipment and Precautions for Firefighters

As in any fire, wear self-contained breathing apparatus pressure-demand, NIOSH (approved

or equivalent) and full protective gear.

# 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions Ensure adequate ventilation. Evacuate personnel to safe areas. Use personal protective equipment.

Monitor oxygen level.

Environmental Precautions Prevent spreading of vapors through sewers, ventilation systems and confined areas.

Methods for Containment Stop the flow of gas or remove cylinder to outdoor location if this can be done without risk. If leak is in

container or container valve, contact us.



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#### 7. HANDLING AND STORAGE

#### Handling

Use only inventilated areas. Never attempt to lift a cylinder by its valve protection cap. Protect cylinders from physical damage; do not drag, roll, slide or drop. When moving cylinders, even for short distance, use a cart designed to transport cylinders. Use equipment rated for cylinder pressure. Use backflow preventive device in piping. Never insert an object (e.g. wrench, screwdriver, pry bar, etc.) into valve cap openings. Doing so may damage valve, causing leak to occur.

Proper handling, storage of regulating equipment and cylinders is required to safely fill helium balloons. DONOT ALLOW CHILDRENOR UNQUALIFIED PEOPLETO OPERATE BALOON FILLING EQUIPMENT. INTENTIONAL INHALATION OF HELIUM CAN CAUSE SERIOUS LUNG DAMAGE OR DEATH. A balloon filling helium regulator must be attached to the valve before it is opened.

Use an adjustable strap wrench to remove over-tight or rusted caps. Close valve after each use and when empty. If user experiences any difficulty operating cylinder valve discontinue use and contact supplier.

Neverput cylinders into trunks of cars or unventilated areas of passenger vehicles. Never attempt to refill a compressed gas cylinder without the owner's written consent. Never strike an arc on a compressed gas cylinder or make a cylinder a part of an electrical circuit.

For additional recommendations consult rule number 18 & 20 of the Gas Cylinder Rules 2004.

Storage

Protect from physical damage. Cylinders should be stored upright with valve protection cap in place and firmly secured to prevent falling. Store in cool, dry, well-ventilated area of non-combustible construction away from heavily trafficked areas and emergency exits. Keep at temperatures below 52°C / 125°F. Full and empty cylinders should be segregrated. Use a "first in-first out" inventory system to prevent full cylinders from being stored for excessive periods of time. Always store and handle compressed gas cylinders in accordance with rule no 21 of the Gas Cylinder Rules 2004.

# 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

Exposure Guidelines This product does not contain any hazardous materials with occupational exposure limits established by

the region specific regulatory bodies.

Engineering Measures Local exhaust ventilation to prevent accumulation of high concentrations and maintain air-oxygen levels

at or above 19.5%.

Ventilation Ensure adequate ventilation, especially in confined areas.

Personal Protective Equipment

Eye/Face Protection Protection Wear protective eyewear (safety glasses).

Skin and Body Protection Work gloves and safety shoes are recommended when handling cylinders.

Respiratory Protection

General Use No special protective equipment required.

Emergency Use Use positive pressure airline respirator with escape cylinder or self contained breathing apparatus for

oxygen-deficient atmospheres (<19.5%).

**Hygiene Measures** Wear suitable gloves and eye/face protection.



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### PHYSICAL AND CHEMICAL PROPERTIES

**Appearance Odor Threshold** Flash Point **Decomposition Temperature** 

Freezing Point Water Solubility Vapor Pressure **Gas Density** 

Specific Vol.@21.1°C & 1 atm Flammability Limits in Air

Upper Lower Colorless. No information available. No information available

No information available. No information available 0.0094 vol/vol@0°C No data available. (at 21.1°C/70°F) 0.0103 lb/ft3

 $(0.165 \text{ kg/m}^3)$ 97.09 ft<sup>3</sup>/lb (6.061 m<sup>3</sup>/kg)

Not applicable Not applicable Odor **Physical State Autoignition Temperature Boiling Point/Boiling Range** Molecular Weight

**Vapor Density** VOC Content (%)

Critical Pressure

**Evaporation Rate** 

Odorless. Compressed gas No information available -268.9 °C / -452.1 °F

No information available 0.14(air = 1)Not applicable.

33.0 psia (227 kPa abs)

#### 10. STABILITY AND REACTIVITY

Stability Stable.

**Incompatible Products** None Known.

**Conditions to Avoid** None Known.

**Hazardous Decomposition Products** None known based on information supplied.

**Hazardous Polymerization** Hazardous polymerization does not occur.

# 11. TOXICOLOGICAL INFORMATION

### **Acute Toxicity**

LD50 Oral: No information available.

LD50 Dermal: No information available.

LC50 Inhalation: No information available.

Repeated Dose Toxicity No information available.

**Chronic Toxicity** 

**Chronic Toxicity** None known.

Carcinogenicity Contains no ingredient listed as a carcinogen.

Irritation No information available.

Sensitization No information available.

Reproductive Toxicity No information available.

**Developmental Toxicity** Oxygen deficiency during pregnancy has produced developmental abnormalities in humans and experi-

mental animals.

Synergistic Materials None known.

**Target Organ Effects** None known.



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# 12. ECOLOGICAL INFORMATION

### **Ecotoxicity**

The environmental impact of this product has not been fully investigated.

Ozone depletion potential; ODP; (R-11 = 1): Does not contain ozone depleting chemical (40 CFR Part 82).

### 13. DISPOSAL CONSIDERATIONS

Waste Disposal Methods Do not attempt to dispose of residual waste or unused quantities. Return in the shipping container PROP-

ERLY LABELED WITH ANY VALVE OUTLET PLUGS OR CAPS SECURED AND VALVE PROTECTION

CAP IN PLACE to Axcel Gases for proper disposal.

### 14. TRANSPORT INFORMATION\_

#### DOT

Proper shipping name Helium, compressed

Hazard Class 2.2 Subsidiary Class None UN-Number UN1046

**Description** UN1046, Helium, compressed, 2.2

# <u>ADR</u>

Proper Shipping Name Helium, compressed

Hazard Class2.2UN-NumberUN1046Classification Code1A

**Description** UN1046, Helium, compressed, 2.2

### 15. REGULATORY INFOR MATION

# **SARA 313**

Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

# SARA 311/312 Hazard Categories

Acute Health HazardNoChronic Health HazardNoFire HazardNoSudden Release of Pressure HazardYesReactive HazardNo



- **2** 0129-4609487, +91 9818370227
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#### 16. OTHER INFORMATION



**General :** Ensure all national/ local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training.

# Advice

To prepare this document, help of various source of information available over electronic media has been taken for the sake of safety of the mankind and the environment. Whilst proper care has been taken during preparation of this document, no legal liability of any kind is accepted for any Injury or Damage resulting from the use of the product or information. We do not claim any type of ownership/correctness of this document or the information contained in it.