

Product: Helium/Oxygen >21% Mixture

MSDS Nr: 0009

Dated: 18/12/09

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

Product Name Heliox  
Company Identification See heading and/or footer  
Emergency phone numbers See heading and/or footer  
Chemical Formula He,O2

### 2 COMPOSITION/INFORMATION INGREDIENTS

Substance Preparation Preparation  
Components/Impurities Contains more than 21% Oxygen (O:R8A)  
Helium  
CAS Nr 07440-59-7, 07782-44-7  
EEC Nr (from EINECS) 231-168-5, 231-956-9

### 3 HAZARDS IDENTIFICATION

Hazards Identification Oxidant, Strongly supports combustion. May react violently with combustible materials.  
Compressed Gas

### 4 FIRST AID MEASURES

Inhalation Continuous inhalation of Oxygen concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion.  
Ingestion Ingestion is not considered a potential route of exposure.

### 5 FIRE FIGHTING MEASURES

Specific Hazards Supports combustion  
Exposure to fire may cause containers to rupture/explode.  
Non-flammable  
Hazardous combustion products None  
Suitable extinguishing media All known extinguishers can be used  
Specific methods if possible, stop flow of product move container away or cool with water from a protected position  
Special protective equipment for fire fighters None

### 6 ACCIDENTAL RELEASE MEASURES

Personal precautions Evacuate area  
Ensure adequate air ventilation  
Eliminate ignition sources  
Environmental precautions Try to stop release  
Clean up methods Ventilate area

### 7 HANDLING AND STORAGE

Handling and storage Use no oil or grease  
Open valve slowly to avoid pressure shock  
Segregate from flammable gases and other flammable materials in store.  
Suck back of water into the container must be prevented  
Do not allow back feed into the container  
Use only properly specified equipment which is suitable for this product, its supply pressure and temperature. Contact your gas supplier if in doubt.  
Keep away from ignition sources (including static discharges)  
Refer to supplier's container handling instructions.  
Keep container below 50° in a well-ventilated place.

### 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

Personal Protection Do not smoke while handling product  
Ensure adequate ventilation  
Avoid oxygen rich (>21%) atmosphere

### 9 PHYSICAL AND CHEMICAL PROPERTIES

Relative density, gas Lighter or similar to air  
Solubility mg/l water Not known  
Appearance/Colour Colourless gas  
Odour None

### 10 STABILITY AND REACTIVITY

Stability and reactivity May react violently with combustible materials  
May react violently with reducing agents  
Violently oxidises organic material

## EMERGENCY CONTACT INFORMATION

Global Headquarters - Dominion Gas Ltd, Dominion Building, Howemoss Avenue, Kirkill Industrial Estate, Dyce, Aberdeen AB21 0GP - **GAS** Tel: + 44 1224 771181

Argon Isotanks Ltd, Aberdeen - Maersk House, Crawpeel Rd, Altens Industrial Estate, Aberdeen AB12 3LG - **TANKS** Tel: + 44 1224 230530

Dominion Oilfield Services, Ghana - Axim Road, Dixcove Hill, Takoradi South, Ghana. Tel: + 233 31 23272

Dominion Gas Norge, Stavanger - 4070 Randaberg, Stavanger, Norway Tel: + 47 51 41 36 50

Dominion Gas Asia Pacific, Singapore - 21 Tanjong Kling Road, Singapore 628047 Tel: + 65 6663 7279

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### 11 TOXICOLOGICAL INFORMATION

**General** No toxicological effects from this product

### 12 ECOLOGICAL INFORMATION

**General** No known ecological damage caused by this product

### 13 DISPOSAL CONSIDERATIONS

**General** To atmosphere in a well ventilated place  
Do not discharge into any place where its accumulation could be dangerous  
Contact supplier if guidance is required.

### 14 TRANSPORT INFORMATION

**UN Nr** 3156  
**Proper Shipping Name** Compressed Gas, Oxidizing, N.O.S.  
**Class/Div** 2.2 (Non-flammable, non toxic gases)  
**Subsidiary risk** 5.1 (Oxidising substances)  
**EMS Code** F-C, S-W  
**Labelling ADR** Label 2: non flammable, non-toxic gas  
Label 5. fire intensifying risk  
**Other transport information** Avoid transport on vehicles where the load space is not separated from the drivers compartment  
Ensure vehicle driver is aware of the potential hazards of the load and knows what to do in the event of an accident or an emergency  
Before transporting product containers ensure that they are firmly secured and:-  
- Cylinder valve is closed and not leaking  
- Valve outlet cap nut or plug (where provided) is correctly fitted  
- Valve protection device (where provided) is correctly fitted  
- There is adequate ventilation  
- Compliance with applicable

regulations

### 15 REGULATORY INFORMATION

#### Labelling of cylinders

**Symbols** Label 2 - non flammable non toxic gas  
Label 5 - fire intensify risk  
**Risk Phrases** R & A Strongly supports combustion  
**Safety Phrases** S17A Keep away from combustible material use no oil or grease

### 16 OTHER INFORMATION

Ensure all national/local regulations are observed  
Ensure operators understand the hazard of oxygen enrichment  
Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out  
Details given, no liability for injury or damage resulting from its use can be accepted.

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