



## Material Safety Data Sheet Oxygen, Refrigerated Liquid

Creation date: 28-Jul-2020

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### 1 Identification of the substance/mixture and of the company/undertaking

Product name: Oxygen, Refrigerated Liquid  
Chemical formula: O<sub>2</sub>  
Company identification: Harvest Wise Gases (H.K.) Company Limited  
Emergency phone number (24hr): 25534121

### 2 Hazards identification

Cold burns or frostbite may be caused by contact with refrigerated liquefied oxygen. Also, Mix with combustible material may cause fire since refrigerated liquefied oxygen is oxidant.

### 3 Composition/information on ingredients

**Components/Impurities:** Oxygen

**CAS registry no. :** 7782-44-7

**EC no. (from EINECS) :** 231-956-9

It does not contain any other components or impurities which can influence the classification of the product.

### 4 First aid measures

#### Ingestion

Ingestion is not considered a common mean of way of contact.

#### Inhalation

Nausea, convulsion, dizziness and difficulty in respiration may be caused due to continuous inhalation of oxygen with concentration which is higher than 75%. If emergency occurs, please remove the victim to open area. The rescue team should wear self contained breathing apparatus. Keep the victim warm and rested. Call a doctor immediately. If the victim stop breathing, artificial respiration should be applied. Call a doctor.

### 5 Firefighting measure

#### Specific hazards

Explosion or rupture may occur if the container is near fire source.

#### Harm from combustion products

None

#### Suitable extinguishing media

All types of different fire extinguishers can be used.

#### Specific methods

Stopping the flow of the chemical should be carried out if possible. Cylinder should be moved to protected position and



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cool down with water. Call Fire Services Department

### **Special protective equipment for fire fighters**

None

## **6 Accidental release measure**

### **Personal precautions**

Evacuate the area and ensure adequate air ventilation is provided. Try to eliminate any ignition sources if possible.

Self contained breathing apparatus should be used especially in confined spaces.

### **Environmental precautions**

The release of the gases should be stopped by any possible methods.

### **Clean up methods**

Natural ventilation or force draft ventilation of the contaminated area should be a standard procedure.

## **7 Handling and storage**

### **Handling**

Only properly manufactured and certified equipment should be used together with this chemical. The complete equipment should be ground to prevent spark which can cause firing or even explosion. Sucking back of water into the gas cylinder must be prevented. The complete equipment should be stored away from fire source. Stay in a well-ventilated or open area for 30 minutes if exposed to high concentrations of liquid oxygen. Just in case if you have any doubts, you are welcome to contact us at any time.

### **Storage**

The pressure vessel should be secured tightly in a well ventilated space and kept under 50°C.

Separating them from flammable gases, especially dissolved acetylene, is required.

## **8 Exposure controls/personal protection**

### **Personal protection**

Proper personal protective equipment should be worn to protect eyes, face and skin from liquid splashes., for example, chemical gloves, safety goggles, safety helmet. Adequate ventilation is required. Smoking should be strictly prohibited. Also, Prevent oxygen rich atmosphere.(>20%)

## **9 Physical and chemical properties**

### **General information**

**General appearance:** Bluish liquid.



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**Odour:** odorless

**Important information on environment, health and safety**

**Chemical formula:** O<sub>2</sub>

**Molecular mass:** 32 g mol<sup>-1</sup>

**Density:** Not applicable

**Melting point:** -219 °C

**Boiling point:** -183 °C

**Critical temperature:** -118 °C

**Autoignition temperature:** Not applicable

**Vapor pressure:** Not applicable

**Magnetic susceptibility:** Not applicable

**Solubility in water:** 39 mg/l

### 10 Stability and reactivity

#### Stability and reactivity

It may react violently with combustible materials or reducing agents to cause firing or even explosion. Embrittlement of structural materials can be caused by liquid spillages.

### 11 Toxicological information

#### General

No known toxicological effects are found out.

### 12 Ecological information

#### General

May cause frost damage to vegetation.

### 13 Disposal considerations

#### General

Waste product can be purged out to fully ventilated space. Don't release near any combustible materials.

### 14 Transport information

#### IMDG

Class 2.2

**UN number and proper shipping name**



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UN 1073 Oxygen, refrigerated, liquid

Labels 2.2, 5.1

Packing Instruction P203

EmS FD, SW

### ADR/RID

Class 2 Classification Code 30

### UN number and proper shipping name

UN 1073 Oxygen, refrigerated, liquid

UN 1073 Oxygen, refrigerated, liquid

Labels 2.2, 5.1 Hazard number 225

Packing Instruction P203

### Other transport information

Vehicle driver should have basic understanding of the risk of the chemical and what should be done in emergency.

The gas cylinder should be properly secured to prevent falling down when the vehicle is moving. The cylinder valves and safety devices would be checked by our professional personnel before the cylinders leave our company.

## 15 Regulatory information

### General

All the local regulation should be strictly followed before using the gases. All the related personnel should receive proper training before using the gases.

### Chemical safety assessment

Risk assessment should be carried out by proper qualified person before using the gases.

## 16 Other information

This MSDS should be fully understood before using the gases. Contact us if you have any doubt. Meanwhile, We do not have any liability for damage or injury caused due the usage of this MSDS. Due to proper preparation of this MSDS, all the details are believed to be correct at the time of releasing.