

	<h1>SAFETY DATA SHEET</h1>	<b>FP : EN.FP.01</b> Page : 1/6 Date : 5/1/2018 Annule : - Réf : EIGA097B
	<h2>OXYGEN REFRIGERATED LIQUID</h2>	
Rédacteur : CCH Approbateur : OP		



2.2 : Non flammable, non toxic gas.



5.1 : Oxidizing substances

UN: 1073

## Warning



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

<b>Product identifier</b>	
<b>Trade name</b>	: Oxygen (refrigerated liquid)
<b>SDS Nr</b>	: EIGA097B
<b>Chemical description</b>	: Oxygen (refrigerated liquid)
CAS No	: 007782-44-7
EC No	: 231-956-9
Index No	: 008-001-00-8
<b>Chemical formula</b>	: O <sub>2</sub>
<b>Registration-No.</b>	: Listed in Annex IV / V REACH, exempted from registration.
<b>Use</b>	: Industrial and professional. Perform risk assessment prior to use.
<b>Company identification</b>	: AIR FLOW Les Portes de Rousset - bât. D 1200 Avenue Perroy - 13790 Rousset- France Tel. : 00 33 (0) 4 42 58 86 85

### 2 Hazards identification

#### Classification of the substance or mixture

**Hazard Class and Category Code**  
Regulation EC 1272/2008 (CLP)

- **Physical hazards** : Oxidizing gases - Category 1 - Danger (H270)  
Gas under pressure - Refrigerated liquefied gas - Warning (H281)

**Classification EC 67/548 or EC 1999/45:** O; R8

#### Label elements

**Labeling Regulation EC 1272/2008 (CLP)**

- **Hazard pictograms**



**AIR FLOW**

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1200 Avenue Perroy - 13790 Rousset- France  
Tel. : 00 33 (0) 4 42 58 86 85

Emergency number: 0033 488 055 505

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### 2 Hazards identification (continued)

- **Signal word** : Danger
- **Hazard statements** : H270: May cause or intensify fire; oxidiser.  
H281: Contains refrigerated gas; may cause cryogenic burns or injury.
- **Precautionary statements**
  - **Prevention** : P244: Keep valves and fittings free from oil and grease  
P220: Keep/Store away from clothing/.../combustible materials.  
P282: Wear cold insulating gloves/face shield/eye protection.
  - **Response** : P336+P315: Thaw frosted parts with lukewarm water. Do not rub affected area.  
Get immediate medical advice / attention.  
P370+P376: In case of fire: Stop leak if safe to do so..
  - **Storage** :

#### Other hazards

**Other hazards** : None

### 3 Composition/information on ingredients

**Substance / Preparation** : Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Oxygen (refrigerated liquid)	100 %	7782-44-7	231-956-9	008-001-00-8	NOTE 1	O; R8
Ox. Gas 1 (H270)						
Press. Gas (H281)						

Contains no other components or impurities which will influence the classification of the product.

Note 1: Listed in Annex IV / V REACH, exempted from registration.

Note 2: Registration deadline not expired.

Full text of R-phrases see chapter 16

### 4 First aid measures

#### First aid measures

- **Inhalation** : Continuous inhalation of concentrations higher than 75% may cause nausea, dizziness, respiratory difficulty and convulsion.  
Remove victim from contaminated area.
- **Skin/eye contact** : Immediately flush eyes thoroughly with water for at least 15 minutes.  
In case of frostbite spray with water for at least 15 minutes. Apply a sterile cloth. Obtain medical assistance.
- **Ingestion** : Ingestion is not considered a potential route of exposure.

### 5 Fire-fighting measures

- Specific hazards** : Exposure to fire may cause containers to rupture/explode.  
Supports combustion..
- Hazardous combustion products** : None.



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### Extinguishing media

- **Suitable extinguishing media** : All known extinguishants can be used.

**Specific methods** : If possible, stop flow of product.

Move away from the container and cool with water from a protected position.

If leaking do not spray water directly on the container. Water surrounding area (from protected position) to contain fire.

**Special protective equipment for fire fighters** : None.

## 6 Accidental release measures

**Personal precautions** : Evacuate area.

Ensure adequate air ventilation.

Eliminate ignition sources. Use protective clothing..

**Environmental precautions** : Try to stop release.

Prevent from entering sewers, basements and workpits, or any place where its accumulation can be dangerous.

**Clean up methods** : Ventilate area.

Keep area evacuated and free from ignition sources until any spilled liquid has evaporated. (Ground free from frost)..

## 7 Handling and storage

**Handling** : Use no oil or grease.

Open valve slowly to avoid pressure shock.

Suck back of water into the container must be prevented. Do not allow backfeed 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..

**Storage** : CCH.

## 8 Exposure controls/personal protection

**Personal protection** : Do not smoke while handling product.

Ensure adequate ventilation.

Protect eyes, face and skin from liquid splashes. Avoid oxygen rich (>21%) atmospheres..

## 9 Physical and chemical properties

**Physical state at 20 °C** : Gas.

**Colour** : Bluish liquid..

**Odour** : No odour warning properties..

**Molecular weight** : 32

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<b>Melting point [°C]</b>	: -219
<b>Boiling point [°C]</b>	: -183
<b>Critical temperature [°C]</b>	: -118
<b>Vapour pressure [20°C]</b>	: Not applicable.
<b>Relative density, gas (air=1)</b>	: 1.1
<b>Relative density, liquid (water=1)</b>	: 1.1
<b>Solubility in water [mg/l]</b>	: 39
<b>Flammability range [vol% in air]</b>	: Oxidiser.
<b>Other data</b>	: Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level..

## 10 Stability and reactivity

<b>Stability and reactivity</b>	: May react violently with combustible materials. May react violently with reducing agents. Violently oxidises organic material. Liquid spillages can cause embrittlement of structural materials. Risk of explosion if spilt on organic structural materials (eg wood or asphalt)..
<b>Hazardous decomposition products</b>	: None.

## 11 Toxicological information

<b>Toxicity information</b>	: No toxicological effects from this product.
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## 12 Ecological information

<b>Toxicity</b>	: No ecological damage caused by this product.
<b>Persistence and degradability</b>	: No ecological damage caused by this product.
<b>Bioaccumulative potential</b>	: No data available..
<b>Mobility in soil</b>	: Because of its high volatility, the product is unlikely to cause ground or water pollution. Partition into soil is unlikely..
<b>Results of PBT and vPvB assessment</b>	: No data available.
<b>Ecological effects information</b>	: Can cause frost damage to vegetation.
<b>Effect on the ozone layer</b>	: None.
<b>Effect on global warming</b>	: None.

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### 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 number** : 1073  
**• Labelling ADR, IMDG, IATA** : 5.1: Oxidizing substances.  
 2.2: Non flammable, non toxic gas

#### Land transport

**ADR/RID**  
**H.I. nr** : 225  
**UN proper shipping name** : OXYGEN, REFRIGERATED LIQUID  
**Transport hazard class(es)** : 2  
**- ADR/RID Classification code** : 3 O  
**- Packing Instruction(s) - General** : P203  
**- Tunnel Restriction** : C/E Tank carriage: Passage forbidden through tunnels of category C, D and E; Other carriage: Passage forbidden through tunnels of category E

#### Sea transport

**- IMO-IMDG code**  
**• Proper shipping name** : OXYGEN, REFRIGERATED LIQUID  
**• Class** : CCH  
**- IMO Packing group** : P203  
**- Emergency Schedule (EmS) - Fire** : F-C  
**- Emergency Schedule (EmS) - Spillage** : S-V  
**- Instructions - Packing** : P203

#### Air transport


**- ICAO/IATA**  
**- Proper shipping name** : OXYGEN, REFRIGERATED LIQUID  
**• Class** : CCH  
**• Passenger and Cargo Aircraft** :  
**- Packing instruction** :  
**• Cargo Aircraft only** :  
**- Packing instruction** :

Avoid transport on vehicles where the load space is not separated from the driver's 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:

- Ensure that containers are firmly secured.
- Ensure cylinder valve is closed and not leaking.



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- Ensure valve outlet cap nut or plug (where provided) is correctly fitted.
- Ensure valve protection device (where provided) is correctly fitted.
- Ensure there is adequate ventilation.
- Verify compliance with applicable regulations.

### 15 Regulatory information

- Safety, health and environmental regulations/legislation specific for the substance or mixture** : Ensure all national/local regulations are observed
- Seveso regulation 96/82/EC** : Listed

### 16 Other information

May cause frostbite.

Ensure operators understand the hazard of oxygen enrichment.

List of full text of R-phrases in : R8: Contact with combustible material may cause fire.  
section 3.

This Safety Data Sheet has been established in accordance with the applicable European Directives and applies to all countries that have translated the Directives in their national laws.

**DISCLAIMER OF LIABILITY** : Whilst proper care has been taken in the preparation of this document, no liability for injury or damage resulting from its use can be accepted.

Details given in this document are believed to be correct at the time of going to press. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

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