

	<h1>SAFETY DATA SHEET</h1>	<b>FP : EN.FP.01</b>
Rédacteur : CCH Approbateur : OP	<h2>CARBON DIOXIDE REFRIGERATED LIQUID</h2>	Page : 1/6 Date : 5/1/2018 Annule : - Réf : EIGA018B



2.2 : Non flammable, non toxic gas.

UN: 2187

**Warning**



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

**Product identifier**  
**Trade name** : Carbon dioxide (refrigerated liquid)  
**SDS Nr** : EIGA018B  
**Chemical description** : Carbon dioxide (refrigerated)  
 CAS No :000124-38-9  
 EC No :204-696-9  
 Index No :---  
**Chemical formula** : CO2  
**Registration-No.** : Listed in Annex IV / V REACH, exempted from registration.  
**Use** : Industrial and professional. Perform risk assessment prior to use.  
**Company identification** : 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** : Gas under pressure - Refrigerated liquefied gas - Warning (H281)

**Classification EC 67/548 or EC 1999/45**: Not included in Annex VI.

Not classified as dangerous preparation/substance.

No EC labeling required.

#### 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

	<h1>SAFETY DATA SHEET</h1>	<b>FP : EN.FP.01</b>
	<h2>CARBON DIOXIDE REFRIGERATED LIQUID</h2>	Page : 2/6 Date : 5/1/2018 Annule : - Réf : EIGA018B
Rédacteur : CCH Approbateur : OP		

## 2 Hazards identification (continued)

- **Signal word** : Warning
- **Hazard statements** : H281 : Contains refrigerated gas; may cause cryogenic burns or injury.
- **Precautionary statements**
  - **Prevention** : 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..
  - **Storage** :

### Other hazards

**Other hazards** : Asphyxiation in high concentration.

## 3 Composition/information on ingredients

**Substance / Preparation** : Substance.

Substance name	Contents	CAS No	EC No	Index No	Registration no	Classification
Carbon dioxide (refrigerated liquid)	100 %	124-38-9	204-696-9	----	NOTE 1	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** : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.  
Low concentrations of CO2 cause increased respiration and headache.  
Remove victim from contaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call emergency or a doctor. Apply artificial respiration if breathing stopped.
- **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.
- Hazardous combustion products** : None.
- Extinguishing media**
  - **Suitable extinguishing media** : All known extinguishants can be used.
  - Specific methods** : If possible, stop flow of product.



	<h1>SAFETY DATA SHEET</h1>	<b>FP : EN.FP.01</b>
	<h2>CARBON DIOXIDE REFRIGERATED LIQUID</h2>	<b>Page : 3/6</b>
Rédacteur : CCH Approbateur : OP		
		<b>Annule : -</b>
		<b>Réf : EIGA018B</b>

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** : In confined space use self-contained breathing apparatus.

### 6 Accidental release measures

- Personal precautions** : Evacuate area.  
Use protective clothing.  
Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe.  
Ensure adequate air ventilation.
- 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.

### 7 Handling and storage

- Handling** : 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.  
Refer to supplier's container handling instructions.
- Storage** : CCH.

### 8 Exposure controls/personal protection

- Personal protection** : Ensure adequate ventilation.  
Protect eyes, face and skin from liquid splashes

### 9 Physical and chemical properties

- Physical state at 20 °C** : Gas.
- Colour** : Colourless liquid.
- Odour** : No odour warning properties.
- Molecular weight** : 44
- Melting point [°C]** : -56.6
- Boiling point [°C]** : -78.5
- Critical temperature [°C]** : 30
- Vapour pressure [20°C]** : 53,7 bar.
- Relative density, gas (air=1)** : 1.52
- Relative density, liquid (water=1)** : 1.03
- Solubility in water [mg/l]** : 2000
- Flammability range [vol% in air]** : Non flammable.
- Other data** : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.



	<b>SAFETY DATA SHEET</b>	<b>FP : EN.FP.01</b>
	<b>CARBON DIOXIDE REFRIGERATED LIQUID</b>	<u>Page</u> : 4/6
Rédacteur : CCH Approbateur : OP		

## 10 Stability and reactivity

**Stability and reactivity** : Stable under normal conditions.  
 Liquid spillages can cause embrittlement of structural materials

**Hazardous decomposition products** : None.

## 11 Toxicological information

**Toxicity information** : In high concentrations cause rapid circulatory insufficiency. Symptoms are headache, nausea and vomiting, which may lead to unconsciousness..

## 12 Ecological information

**Toxicity** : No ecological damage caused by this product.

**Persistence and degradability** : No ecological damage caused by this product.

**Bioaccumulative potential** : No ecological damage caused by this product.

**Mobility in soil** : Because of its high volatility, the product is unlikely to cause ground or water pollution.  
 Partition into soil is unlikely..

**Results of PBT and vPvB assessment** : No data available.

**Ecological effects information** : When discharged in large quantities may contribute to the greenhouse effect.  
 Can cause frost damage to vegetation..

**Effect on the ozone layer** : None.

**Effect on global warming** : 1  
 Contains greenhouse gas(es).  
 When discharged in large quantities may contribute to the greenhouse effect..

## 13 Disposal considerations

**General** : Do not discharge into any place where its accumulation could be dangerous.  
 Discharge to atmosphere in large quantities should be avoided.  
 Contact supplier if guidance is required.

	<h1>SAFETY DATA SHEET</h1>	<b>FP : EN.FP.01</b>
	<h2>CARBON DIOXIDE REFRIGERATED LIQUID</h2>	<u>Page</u> : 5/6
Rédacteur : CCH Approbateur : OP		

### 14 Transport information

**UN number** : 2187  
**• Labelling ADR, IMDG, IATA** : 2.2 - Non flammable, non toxic gas

#### Land transport

**ADR/RID**  
**H.I. nr** : 22  
**UN proper shipping name** : CARBON DIOXIDE, REFRIGERATED LIQUID  
**Transport hazard class(es)** : 2  
**- ADR/RID Classification code** : 3 A.  
**- 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** : CARBON DIOXIDE, 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** : CARBON DIOXIDE, 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.
- 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** : Ensure all national/local regulations are observed



	<h1>SAFETY DATA SHEET</h1>	<u>FP</u> : <b>EN.FP.01</b>
Rédacteur : CCH Approbateur : OP	<h2>CARBON DIOXIDE REFRIGERATED LIQUID</h2>	<u>Page</u> : 6/6 <u>Date</u> : 5/1/2018 <u>Annule</u> : - <u>Réf</u> : EIGA018B

for the substance or mixture  
Seveso regulation 96/82/EC : Not covered

### 16 Other information

Asphyxiant in high concentrations.

Keep container in a well-ventilated place. Do not breathe the gas.

May cause frostbite.

Wear suitable protective clothing.

The hazard of asphyxiation is often overlooked and must be stressed during operator training.

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** : Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.

Details given in this document are believed to be correct at the time of going to press. 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.

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