

# Safety data sheet

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Société : VAR

## Carbon Dioxide in non-refillable gas cylinders

### 1 - Designation of material/mixture and company description

Trade name : Carbon dioxide in non refillable gas cylinders  
Product : RP-44200 & RP-44200-B

**Chemical description of gas** : Carbon dioxide

No CAS :000124-38-9

No CE :204-696-9

No Index :---

**REACH registration number** : CO2 is listed in annex IV/ V of regulation no EC 1907/2006 (REACH)

**Chemical formula** : CO2

**UN Number** : UN 1013

Company name :

VAR.

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Association/Organisation: INRS/ORFILA <http://www.centres-antipoison.net>.

### 2 – Hazards identification

#### • 2.1. Classification of the substance

**Classification according to Regulation 1272/2008/EC (CLP/GHS)**

Gases under pressure (Compressed gas)

**Classification according to Directive 67/548/EEC & 1999/45/EC**

Not included in Annex VI. Not classified as hazardous to health. No EC labelling required.

**Risk advice to man and the environment**

Refrigerated liquefied gas. Contact with product may cause cold burns or frostbite.

#### 2.2. Label elements

Labelling Regulation EC 1272/2008 (CLP)



#### -Hazard Pictograms

- **Signal word** Warning

- **Hazard Statements**

H280 Contains gas under pressure; may explode when heated. The cylinder valve however contains a bursting disc designed to safely release the contents of the cylinder to atmosphere before the test pressure is reached, thus protecting the cylinder.

- **Precautionary Statements**

**Precautionary Statement Storage**

P403 Store in a well-ventilated place.

**Precautionary Statement Disposal**

Return to supplier.

Labelling Regulation EC 67/548 or EC 1999/45

Symbol(s) None

R Phrase(s) None

S Phrase(s) None

#### 2.3. Other hazards

Asphyxiant in high concentrations.

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## Carbon Dioxide in non-refillable gas cylinders

### 3 - Composition/information on ingredients

**Substance / Mixture:** Substance.

#### **3.1. Substances**

Carbon dioxide, 100%

**CAS No:** 124-38-9

**Index-Nr.:** -

**EC No (from EINECS):** 204-696-9

**REACH Registration number:**

Listed in Annex IV/V of Regulation (EC) No 1907/2006 (REACH), exempted from registration.

#### **3.2. Mixtures**

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

Full text of R-phrases – see chapter 16

### 4 - First aid measures

#### **4.1. Description of first aid measures**

**First Aid Inhalation:** Remove victim to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.

**First Aid Skin / Eye:** In case of frostbite spray with water for at least 15 minutes. Apply a sterile dressing. Obtain medical assistance. Immediately flush eyes thoroughly with water for at least 15 minutes.

**First Aid Ingestion:** Ingestion is not considered a potential route of exposure.

#### **4.2. Most important symptoms and effects, both acute and delayed**

In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness.

Victim may not be aware of asphyxiation. Low concentrations of CO<sub>2</sub> cause increased respiration and headache.

#### **4.3. Indication of any immediate medical attention and special treatment needed**

None.

### 5 - Fire fighting measures

#### **5.1. Extinguishing media**

##### **Suitable extinguishing media**

All known extinguishants can be used.

#### **5.2. Special hazards arising from the substance or mixture**

Exposure to fire may cause containers to rupture/explode. Safety device releases all contents to atmosphere.

##### **Hazardous combustion products**

None.

#### **5.3. Advice for fire-fighters**

Move container away or cool with water from a protected position.

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

In confined space use self-contained breathing apparatus.

### 6 - Accidental release measures

#### **6.1. Personal precautions**

Evacuate area. Wear self-contained breathing apparatus when entering area unless atmosphere is proved to be safe. Ensure adequate air ventilation.

#### **6.2. Environmental precautions**

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

#### **6.3. Methods for containment and cleaning up**

Ventilate area.

#### **6.4. Reference to other sections**

See also sections 8 and 13

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### 7. Handling and storage

#### 7.1. Precautions for safe 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.

#### 7.2. Conditions for safe storage.

Keep out of reach of children

Boxed cylinders may be stood upright, loose cylinders should be laid horizontally and prevented from rolling. Cylinders should preferably be stored in open or ground level ventilated areas.

CO<sub>2</sub> is a heavy gas and any leakage will gather on the lowest level and slowly fill up a closed room.

Store cylinders away from direct sunlight or other sources of heat.

Store in an ambient temperature below 50°C

### 8. Exposure controls/personal protection

#### 8.1. Control parameters

##### Exposure limit value

ILV (EU) - 8H – [mg/m<sup>3</sup>] : 9000

ILV (EU) - 8H – [ppm] : 5000

TLV<sup>©</sup> - TWA [ppm] : 5000

TLV<sup>©</sup> - STEL [ppm] : 30000

#### 8.2. Exposure controls

##### Appropriate engineering controls

Ensure adequate ventilation.

### 9 - Physical and chemical properties

#### 9.1. Information on basic physical and chemical properties

##### General information

**Physical state at 20°C:** Liquefied gas

**Appearance/Colour:** Colourless liquid.

**Odour:** No odour warning properties.

**Melting point:** -56,6 °C

**Boiling point:** -78,5 °C

**Sublimation point:** -78,5 °C

**Critical temperature:** 30°C

**Flash point:** Not applicable.

**Flammability:** Non flammable.

**Vapour Pressure 20°C:** 57.3 bar

**Relative density, gas:** [air=1] 1,52

**Relative density, liquid:** [water=1] 0,82

**Solubility in water:** 2000 mg/l

**Autoignition temperature:** Not applicable.

**Explosive properties:** Not explosive

**Oxidising properties:** Not applicable.

**9.2. Other information** Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

### 10 - Stability and reactivity

**10.1. Reactivity** Unreactive under normal conditions.

**10.2. Chemical stability** Stable under normal conditions.

#### 10.3. Possibility of hazardous reactions

None.

**10.4. Conditions to avoid** None.

**10.5. Incompatible materials** None

#### 10.6. Hazardous decomposition products

None

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## Carbon Dioxide in non-refillable gas cylinders

### 11 - Toxicological information

#### 11.1. Information on toxicological effects

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

### 12 - Ecological information

**12.1. Toxicity** When discharged in large quantities may contribute to the greenhouse effect.

**Global Warming Potential GWP** [CO<sub>2</sub> = 1]

### 13 - Disposal considerations

#### 13.1. Waste treatment methods

Do not discharge into any place where its accumulation could be dangerous. Vent to atmosphere in a well ventilated place. Discharge to atmosphere in large quantities should be avoided. Contact supplier if guidance is required.

### 14- Transport information

#### Land transport

In accordance with the requirements set out in the current issue of the ADR

**ADR/IMDG/IATA : UN 1013 proper shipping name** Carbon dioxide

#### Sea transport :

In accordance with the requirements set out in the current issue of the IMO-IMDG code

**ADR/IMDG/IATA : UN 1013 proper shipping name** Carbon dioxide

#### Air transport :

In accordance with the requirements set out in the current issue of the IATA, dangerous goods regulations

**ADR/IMDG/IATA : UN 1013 proper shipping name** Carbon dioxide

### 15- Regulatory information

#### 15.1. Safety, health and environmental regulations/legislation specific for the substance or mixture

Seveso Directive 96/82/EC: Not applicable.

#### 15.2. Chemical safety assessment

A CSA does not need to be carried out for this product. Exposure data is included elsewhere in this SDS. Usage instructions are supplied with each product.

### 16- AUTRES INFORMATIONS

Ensure all national/local regulations are observed.

The hazard of asphyxiation is often overlooked and must be stressed during operator training. Ensure storage areas are ventilated.

Contact with liquid CO<sub>2</sub> can cause cold burns/frostbite. Rapidly discharged cylinders can become very cold and protective gloves should be worn.

Do not breathe the gas.

Store cylinders away from direct sunlight or other sources of heat. Store in an ambient temperature below 50°C.

Store the cylinders securely in boxes to prevent them rolling or falling on warehouse personnel.

Do not throw or impact the cylinders.

Ensure packaging is kept dry.

Cylinders are heavy; care should be taken to lift the boxes correctly to avoid back injuries.

This Safety Data Sheet replaces previous issues compiled in accordance with 91/155/EEC.

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**DISCLAIMER LIABILITY:** Despite the care of Bring in the drafting of this document No liability can be accepted for damages Case ou accident resulting from the use son. Before USE this product to a request for a new e pour tests, Jun study compatibility DEPTH Materials and A Risk analysis should be Make .The information contained in the present safety data sheet comes from our experience directly. These are good faith All data and corresponding to the present state of our heuristic knowledge about the safety of the products range **VAR®** to date update indicated at the top of page 1. This paper does not in None of the CAS User Knowing and applying all the texts regulating son activity. He will be the only responsible precautions Related to the use of Products range **VAR®**. All regulatory requirements-have mentioned Simply pour aider but the recipient COMPLETE obligations Who obligations of UN LORs use the dangerous or not. This list is not exhaustive Must Be regarded as.