Linde Gas | AGA

# Safety data sheet

# Carbon dioxide

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|---|---|---|---|---|
| Creation date : | 08.02.2007 | Version : 1.0 | SE / E | SDS no. : 8377 |
| Revision date : | 08.02.2007 | | | |

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

**Product description**
Carbon dioxide
**Chemical formula** CO2
**Known uses**
For professional use only.
**Company identification**
AGA Gas AB, Rissneleden 14, 17282 Sundbyberg, Sweden
**Phone:** +4619276105
**Fax:** +4619255831
**Emergency phone numbers:** +4620996000

## 2 COMPOSITION/INFORMATION ON INGREDIENTS

**Substance/Preparation:** Substance
**Components/ Impurities**
**Carbon dioxide**
**CAS Nr:** 124-38-9
**EEC Nr (from EINECS) :** 204-696-9
Contains no other components or impurities which will influence the classification of the product.

## 3 HAZARDS IDENTIFICATION

**Classification**
Asphyxiant in high concentrations.
**Risk advice to man and the environment**
Liquefied gas
Contact with liquid may cause cold burns/frost bite.

## 4 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 to uncontaminated area wearing self contained breathing apparatus. Keep victim warm and rested. Call a doctor. Apply artificial respiration if breathing stopped.
**Skin/eye contact**
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. Non flammable
**Hazardous combustion products**
None
**Suitable extinguishing media**
All known extinguishants 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**
In confined space use self-contained breathing apparatus.

## 6 ACCIDENTAL RELEASE MEASURES

**Personal precautions**
Evacuate area. 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 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. Refer to supplier's container handling instructions.
**Storage**
Secure cylinders before falling down. Keep container below 50°C in a well ventilated place.

## 8 EXPOSURE CONTROLS/PERSONAL PROTECTION

**Exposure limit value**

| Value type | value | Note |
|---|---|---|
| SE-NGV | 5.000 ppm | |
| TLV (ACGIH) | 5.000 ppm | ACGIH 1995 - 1996 |

**Personal protection**
Ensure adequate ventilation. Carry working gloves and protection shoes while handling gas cylinders.

## 9 PHYSICAL AND CHEMICAL PROPERTIES

**General information**
**Appearance/Colour:** Colourless gas
**Odour:** No odour warning properties.

**Important information on environment, health and safety**
**Molecular weight:** 44 g/mol
**Melting point:** -56,6 °C
**Boiling point:** -78,5 °C
**Sublimation point:** -78,5 °C
**Critical temperature:** 31 °C
**Autoignition temperature:** Not applicable
**Flammability range:** Not applicable
**Vapour Pressure 20 °C:** 57,3 bar
**Maximum filling pressure (bar):** 57 bar
**Other data**
Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level.

## 10 STABILITY AND REACTIVITY

**Stability and reactivity**
Stable under normal conditions.

## 11 TOXICOLOGICAL INFORMATION

**Acute toxicity**
Symptoms are headache, nausea and vomiting, which may lead to unconsciousness.

## 12 ECOLOGICAL INFORMATION

**General**
When discharged in large quantities may contribute to the greenhouse effect. Global warming factor

## 13 DISPOSAL CONSIDERATIONS

**General**
Do not discharge into any place where its accumulation could be dangerous. To atmosphere in a well ventilated place. Discharge to

atmosphere in large quantities should be avoided. Contact supplier if guidance is required.
**EWC no. 16 05 05**

## 14 TRANSPORT INFORMATION

**ADR/RID**

| | | | |
|---|---|---|---|
| Class | 2 | Classification Code | 2A |

**UN number and proper shipping name**
UN 1013 Carbon dioxide

| | | | |
|---|---|---|---|
| ADR/RID-Labels | 2.2 | Hazard number | 20 |
| Packing Instruction | P200 | | |

**IMDG**

| | |
|---|---|
| Class | 2.2 |

**UN number and proper shipping name**
UN 1013 Carbon dioxide

| | |
|---|---|
| ADR/RID-Labels | 2.2 |
| Packing Instruction | P200 |
| EmS | FC, SV |

**IATA**

| | |
|---|---|
| Class | 2.2 |

**UN number and proper shipping name**
UN 1013 Carbon dioxide

| | |
|---|---|
| ADR/RID-Labels | 2.2 |
| Packing Instruction | P200 |

**Other transport information**
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 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

**Number in Annex I of Dir 67/548**
Not included in Annex I.
**EC Classification:** Proposed by the industry
Not classified as dangerous substance.

**Labelling**
**- Symbols**
No symbol required.
**- Risk Phrases**
RAs Asphyxiant in high concentrations.
**- Safety Phrases**
S9 Keep container in well ventilated place.
S23 Do not breathe the gas.
**Water pollution class**
Not water endagering according to VwVwS of the 17.5.1999

## 16 OTHER INFORMATION

Ensure all national/local regulations are observed. The hazard of asphyxiation is often overlooked and must be stressed during operator training. Before using this product in any new process or experiment, a thorough material compatibility and safety study should be carried out.
**Advice**
Details given in this document are believed to be correct at the time of going to press.
**Further informations**
Hommel: Handbook of dangerous goods
Linde Safety Instructions
Nr. 12 Handling of carbon dioxide CO2

**End of document**