
DATA SHEET FOR CARBON DIOXIDE DISPOSABLE CYLINDERS

1) Identification of the Substance/ Preparation

Product Name: Carbon Dioxide

Chemical Formula CO₂

2) Composition/ Information on Ingredients

Substance/ Preparation: Substance

Components/ Impurities: Contains no other components or impurities which will influence the classification of the product.

3) Hazards Identification

Hazards Identification: Liquified Gas

In high concentrations may cause asphyxiation.

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: 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 dressing .
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 Extinguishable 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.

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:

Ventilated area.

7) Handling and Storage

Handling and Storage:

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.

Keep container below 50°C in a well ventilated place.

8) Exposure Controls/ Personal Protection

Exposure Limit Value: 5000 ppm

Exposure Limit Value for Country:
Great Britain: STEL: 15000 ppm

Personal Protection: Ensure Adequate Ventilation

9) Physical and Chemical Properties

Molecular Weight: 44

Melting Point: -56.6°C

Boiling Point: -78,5(s)°C

Critical Temperature: 30°C

Relative Density, Gas: 1.52 (air=1)

Relative Density, Liquid: 0.82 (water=1)

Vapour Pressure 20°C: 57.3 bar

Solubility mg/l Water: 2000 mg/l

Appearance/ Colour: Colourless Gas

Odour: No odour warning properties.

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

General: In high concentrations cause rapid circulatory insufficiency. 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: 1

13) Disposable Considerations

General: Do not discharge into any place where its accumulation could be dangerous.
To atmosphere in a well ventilated place.
Contact supplier if guidance is required.

14) Transport Information

Proper Shipping Name: Carbon Dioxide.
UN Nr: 1013
Class/ Div: 2.2
ADR/RID Classification Code: 2, 2°A
ADR/RID Hazard Nr: 20
Labelling ADR: Label 2: Non flammable non toxic gas

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 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: Not classified as dangerous preparation.

EC Labelling (Symbols, R &S Phrases): No EC labelling required.

16) Other Information

Asphyxiant in high concentrations.

Keep container in well ventilated place.

Do not breathe the gas.

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.

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.

This 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.