

MATERIAL SAFETY DATA SHEET

PRODUCT: CARBON DIOXIDE

1. PRODUCT IDENTIFICATION AND COMPANY DETAILS

Product: Carbon Dioxide, compressed
Chemical formula: CO₂
Company name: Prime Co. (Middle East) Ltd.
Company contact: +971-4-8816820

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance / Preparation: Substance
Components / Impurities: Contains no other components or impurities which will influence the classification of product.
CAS Number: 124-38-9

3. HAZARDS IDENTIFICATION

Hazards identification: High pressure liquid and gas. In high concentration may cause dizziness, drowsiness and asphyxiation. May cause frost bite.

4. FIRST AID MEASURES

Inhalation: Immediately remove to fresh air and call doctor.
Ingestion: This product is gas at normal temperature and pressure. It is not considered a potential route for exposure.
Eye contact: Flush eyes with water.

5. PHYSICAL & CHEMICAL PROPERTIES

Appearance: Colourless gas at normal temperature and pressure
Odour: None. May have a slight pungent odour and biting taste.
Physical state: Gas at normal temperature and pressure
Sublimation point: - 78.5 °C at 1 atm
Boiling point: Not applicable
Liquid density: 762 kg/m³ at 21.1 °C and 1 atm
Vapour pressure: 5778 kPa (838 psi) at 20 °C
Flammable limits: Not applicable
Autoignition
Temperature: Not applicable
Molecular weight: 44.01
Molecular formula: CO₂

6. FIRE FIGHTING MEASURES

Flammable Properties: Nonflammable.

Suitable extinguishing media: Carbon dioxide cannot catch fire. Use media appropriate for surrounding fire.

Products of combustion: None

Specific methods: Heat of fire can build pressure in cylinder, hence move away from container. Immediately cool cylinder using water.

Special protective equipment for firefighting: Use self contained breathing apparatus.

7. STABILITY AND REACTIVITY

Chemical stability: Stable under normal conditions.

In compatible materials: Alkali metals, alkaline earth materials, metal acetylides.

8. TOXICOLOGICAL INFORMATION

Carbon dioxide is an asphyxiant.

9. ECOLOGICAL INFORMATION

Ecotoxicity: No known effects

10. DISPOSAL PROCEDURES

Do not attempt to dispose of residual or unused quantities. Return cylinder to supplier.

11. ACCIDENTAL RELEASE MEASURES

Personal precautions: Carbon dioxide is an asphyxiant. Shut off valve if without risk. Move cylinder to well ventilated area. Evacuate area and ensure adequate ventilation.

Environmental precautions: Keep personnel away. Try to stop release.

12. HANDLING AND STORAGE

Precautions to be taken in handling: Protect cylinders from damage. Do not drag, slide, roll or drop cylinders. Never attempt to lift cylinders by its cap as the cap is intended to protect the valve. Slowly open valve. Close cylinder valve after each use and keep closed even when cylinder is empty. Never apply heat or flame to any part of cylinder.

Precautions to be taken in storage: Store and use with adequate ventilation. Firmly secure cylinders upright to keep them from falling or being knocked over. Store cylinders below 50 °C.

13. TRANSPORT INFORMATION

UN Number: 1013
Hazard Class: 2.2
Labeling ADR Label 2: non flammable gas.

Other information: Avoid transport on vehicles where the load space is not separated from driver's compartment. The vehicle driver must be aware of the potential hazards of the cylinders and knows what to do in the event of an accident or emergency. Before transporting cylinders ensure that they are firmly secured in the vehicle, cylinder valve is closed, valve protection is in place, adequate ventilation and compliance with local regulations.

14. REGULATORY INFORMATION

Labeling of cylinder
- Label 2: non flammable gas.

15. OTHER INFORMATION

Ensure all national / local regulations are observed and adhered to. Ensure that the operators understand the hazard of nitrogen enrichment. 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.

The MSDS is based on reliable sources. Sufficient care has been taken in preparation of this document, however no liability for injury or damage resulting from its use can be accepted.

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