



SAFETY DATA SHEET

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Revised edition no: 0

Date: 01-01-2013

CARBON DIOXIDE (refrigerated)

Y.O 009

1. IDENTIFICATION OF THE SUBSTANCE / PRODUCTION AND COMPANY NAME

Trade Name : CARBON DIOXIDE (refrigerated)
MSDS No. : Y.O 009
Chemical Formula : CO₂
Company Name : Yateem Oxygen
Emergency Phone Nr : 17456248, 17731452

2. COMPOSITION / INFORMATION ON INGREDIENTS

Substance name : Carbon dioxide (refrigerated) Contents : 100%
Contains no other components or impurities which will influence the classification of the product

3. HAZARDS IDENTIFICATION

Hazards identification : Refrigerated liquefied gas.
Contact with product may cause cold burns or frostbite.
In high concentrations may cause asphyxiation.



4. FIRST AID MEASURES

a) Inhalation : In high concentrations may cause asphyxiation. Symptoms may include loss of mobility/consciousness. Victim may not be aware of asphyxiation.
Remove victim to uncontaminated area.
b) 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.

5. FIRE-FIGHTING MEASURES

Flammable class : Non flammable.
Specific hazards : Exposure to fire may cause containers to rupture/explode.
Suitable extinguishing 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. HANDLING AND STORAGE

General : Containers, which contain or have contained flammable or explosive substances, must not be inerted with liquid carbon dioxide. Potential production of solid CO₂ particles must be ruled out. In order to rule out potential electrostatic discharge production, the system must be adequately grounded.
Storage : Keep container below 50°C in a well ventilated place.
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.

7. EXPOSURE CONTROLS / PERSONAL PROTECTION

Personal protection : Ensure adequate ventilation. Protect eyes, face and skin from liquid splashes.
Occupational Exposure Limits

: Carbon dioxide : TLV© -TWA [ppm] : 5000
Carbon dioxide : TLV© -STEL [ppm] : 30000
Carbon dioxide : OEL (UK)-LTEL [ppm] : 5000
Carbon dioxide : OEL (UK)-STEL [ppm] : 15000
Carbon dioxide : MAK - Germany [ppm] : 5000



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8. PHYSICAL AND CHEMICAL PROPERTIES

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| Physical state at 20 °C | : Liquefied gas. |
| Colour | : Colourless. |
| Odour | : No odour warning properties. |
| Molecular formula | : CO ₂ |
| Molecular weight | : 44 |
| Melting point [°C] | : -56.6 |
| Boiling point [°C] | : -78.5 (s) |
| Critical temperature [°C] | : 30 |
| Vapour pressure, 20°C | : 57.3 bar |
| Relative density, gas (air=1) | : 1.52 |
| Relative density, liquid (water=1) | : 1.03 |
| Solubility in water [mg/l] | : 2000 |
| Other data | : Gas/vapour heavier than air. May accumulate in confined spaces, particularly at or below ground level. |

9. STABILITY AND REACTIVITY

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| Stability and reactivity | : Stable under normal conditions. Liquid spillages can cause embrittlement of structural materials. |
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10. TOXICOLOGICAL INFORMATION

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

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| 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. |
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12. TRANSPORT INFORMATION

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| UN No. | : 2187 |
| Proper shipping name | : CARBON DIOXID, REFRIGERATED LIQUID |
| Labeling | : Label 2.2 : Non flammable, non toxic gas. Label 5.1 Oxidizing substances. |
| 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 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. - Compliance with applicable regulations. |



13. OTHER INFORMATION

Asphyxiant in high concentrations.
Keep container in a well-ventilated place.
Do not breathe the gas.
Ensure all national/local regulations are observed.
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.