

# Carbon Dioxide (CO<sub>2</sub>)



- Colourless
- Odourless
- Non-flammable
- Non-toxic

### Applications:

Welding, prevention of oxidation, beer dispensing

**Color Coding:** Green

**Purity:** ≥99.9%

**Hazards :**



**UN NB:** 1013

### **LGI technical Capabilities:**

- ◆ Experience since 1952
- ◆ Environmental safe processes
- ◆ Main Partners: Afrox, Linde....
- ◆ As per South African standard
- ◆ Fleet of special delivery trucks (4 delivery vehicles)
- ◆ Management of customers' stock and availability at all times
- ◆ Cylinder test workshop (testing , cleaning, quality check ,painting)

# Carbon Dioxide (CO<sub>2</sub>)



## Chemical Properties

Molecular Weight	Specific Volume @ 20°C & 101.325 Kpa
44.011 g/mol	547 ml/g

## Hazards

- CO<sub>2</sub> does not support life. It can act as a simple asphyxiant by diluting the concentration of oxygen in air below the levels necessary to support life
- As it is heavier than air it will tend to concentrate at lower levels
- All cylinders are portable gas containers and must be regarded as pressure vessels at all times

## Uses and Features

- shielding gas for steel sections and plate. Used primarily for short arc welding of mild steels with all diameters of solid steel MIG wire and flux cored gas shielded wires
- inert atmosphere for many industrial applications, e.g. prevention of oxidation, conveying flammable materials
- Some applications for compressed CO<sub>2</sub> include: beer dispensing, post-mix soft drink dispensing, shielded arc welding, sparging, foundry sand mould curing, fire fighting (fire extinguishers), gas atmosphere for preservation of packaged foods, animal immobilisation.

## Handling and Storage

- Do not allow cylinders to slide or come into contact with sharp edges
- CO<sub>2</sub> cylinders must be stacked vertically at all times, and should be firmly secured in order to prevent them from being knocked over
- Use a "first in - first out" inventory system to prevent full cylinders from being stored for excessive periods of time
- Keep out of reach of children