

# PRODUCT DATA SHEET

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

An odourless, colourless, non-toxic, non-flammable gas. Supplied as a high pressure liquefiable gas in metal cylinders.

### Hazards

- High pressure liquefiable gas
- Sudden expansion will produce low temperatures
- Asphyxiant in high concentration.

### Classifications (Carbon Dioxide Technical)

Gas	Purity
Carbon dioxide technical	99,0%

Material Description	Mass (kg)	Cylinder Capacity (ℓ)	Pressure @ 20°C (Bar)	Valve Outlet Connection	Item Number
CO <sub>2</sub> TEC CYL 31,3 KG	31,3	47,2	153	0,860" x 14TPI Right hand male	40-RC
CO <sub>2</sub> TEC CYL 31,3 KG WET	31,3	47,2	153	0,860" x 14TPI Right hand male	40-RC-W

Higher grades and purities of this product are available from Afrox. Specifications are included in the 'Special Products and Chemicals' section

### Physical Data

Appearance/odour	Colourless and odourless
Molecular weight	44,011
Specific volume at 20°C and 101,325 kPa	547 ℓ/kg
Critical temperature	31 °C
Relative density (air = 1) at 1 atm	1,53
Density, gas at 101,325 kPa and 0 °C	1,977 kg/m <sup>3</sup>
Flammability	N/A

### Uses and Features

- Welding grade CO<sub>2</sub> is a general purpose 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
- Industrial grade CO<sub>2</sub> is used as an 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.

### Precautions in Use

- Use only approved pressure rated equipment
- Wear safety glasses, use leather/plastic protective gloves, wear overalls when handling cylinders
- Open cylinder valve slowly
- Close cylinder valve when not in use
- Refer to MSDS for more information.

### Material Compatibility

- Dry carbon dioxide is non-corrosive, hence common materials are acceptable, e.g. steel, iron, copper, brass, plastic
- Moist carbon dioxide is slightly corrosive, hence carbonic acid resistant materials are required.

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