

E 290

Marking**CAS****Characterization acc. ADR****Cylinder Marking**124-38-9
UN 1013 CARBON DIOXIDE,
2.2,(C/E)

Shoulder color: grey, body olive

Essential properties

liquified gas, heavier than air, colorless, odorless

Symbols of risks

For additional safety information see safety data sheet *-CO2-018A

Description

Colourless, liquified gas with slightly sourish smelling resp. taste. During expansion the carbondioxide can be cooled down below sublimation temperature. This results in CO₂-snow (dry ice).

Materials

Cylinders and Valves: any usual materials
In the presence of humidity danger of corrosion of steel
Seals: PTFE, PCTFE, PVDF, PA, PP

Physical Properties			
molecular weight	44,0098 kg/kmol	vapour pressure at 20°C	
critical point		gas density at 0°C and 1,013 bar	1,9767 kg/m ³
temperature	304,21 K	density ratio to air	1,5289
Pressure	73,825 bar	gas density at 15°C and 1 bar	1,8474 kg/m ³
density	0,466 kg/l	conversion factor	
triple point		liquid at Ts to m ³ gas (15°C, 1 bar)	
temperature	216,58 K	virial coefficient	
Pressure	5,185 bar	Bn at 0°C	-6,64*10 ⁻³ bar ⁻¹
boiling point		B30 at 30°C	-4,78*10 ⁻³ bar ⁻¹
temperature	194,674 K; -78,5 °C	gaseous state at 25°C and 1 bar	
liquid density	(Sublimationspunkt)	specific heat capacity cp	0,8504 kJ/kg K
evaporation heat	573,02 kJ/kg	thermal conductivity	164*10 ⁻⁴ W/m K
		dynam. viscosity	14,833*10 ⁻⁶ Ns/m ²