

## Carbon Dioxide liquid Foodgrade E290

Chemical name: Carbon Dioxide  
Formula: CO<sub>2</sub>

### Specification/grade

Purity	≥	99.9 vol %
Impurities	Acidity *	
	Reducing agents, phosphine and hydrogen sulfide *	
	O <sub>2</sub>	≤ 50 vpm
	CO	≤ 10 vpm
	Oil	≤ 5 ppm w/w
	* according regulation (EU) 231/2012	
	Production, storage, distribution and delivery according to HACCP system	

### Storage specification

	Gross water content (l)	Max working pressure (bar)
Insulated refrigerated storage tanks	5,000 – 40,000	15 – 20 (at –22°C)
Vacuum insulated storage tanks	3,200 – 50,000	15 – 20 (at –22°C)
Non insulated storage tanks	3,000	50 (at 15°C)
Product code	3790901	

### Conversion factors

1 kg	≅ 0,97 l	≅ 0,54 m <sup>3</sup>	l = litre at –20 °C m <sup>3</sup> at 15 °C and 1 bar ≅ equals
1 m <sup>3</sup>	≅ 1,79 l	≅ 1,85 kg	
1 l	≅ 1,03 kg	≅ 0,56 m <sup>3</sup>	

### Thermo physical properties

Molecular weight (kg/kmol)	44.01		
Density gas (kg/m <sup>3</sup> at 1,013 bar and 0 °C)	1.977		
Relative density (air = 1 at 0°C)	1.529		
Density of the liquid (kg/dm <sup>3</sup> at –20 °C)	1.030		
Sublimation point (°C) (K)	–78.5	respectively	194.7
Critical temperature (°C) (K)	31.1	respectively	304.2
Vapour pressure (bar at –20°C)	19.7		

### Additional information

Safety data sheet	Carbon dioxide, refrigerated liquid (VIB nr. 9451) Colourless and odourless, under pressure liquefied, cooled gas Liquid E 290
Product description	
Delivery form	
E-number	
Used for the production of foodstuffs	

### Gaseous applications

Purging	Freezing, cooling Dough cooling Super critical extraction Spraying of powders Grinding
Sparging	
Modified atmospheres of foodstuffs (MAPAX)	
Controlled atmosphere	
Insect control	

### Liquid applications

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