



BIOGON® Food-grade gases

BIOGON® C (E 290) carbon dioxide (CO₂)



Application area

The food industry utilizes carbon dioxide gas for various purposes. One primary use is in food packaging to extend the shelf life of products, as carbon dioxide inhibits bacterial growth. When dissolved in water, it forms carbonic acid, which is used in beverages like beer and soft drinks to create bubbles or foam. Cylinders containing food-grade gases are green and easily identifiable. The color code on the cylinder neck differentiates the gases. Our food-grade gases meet all EU standards and are traceable.

Product specification

BIOGON® C (E 290) carbon dioxide, CO₂

Product name	Purity vol %	Impurities unit ppm		Odor, taste	Cylinder size	Content	Material- number
	CO ₂	H ₂	O ₂				
BIOGON® C	≥99,9	≤20	≤30	None	5 l	3,75 kg	108422
BIOGON® C	≥99,9	≤20	≤30	None	13,4 l	10 kg	100300
BIOGON® C	≥99,9	≤20	≤30	None	20 l	15 kg	108525
BIOGON® C	≥99,9	≤20	≤30	None	50 l	37,5 kg	108540
BIOGON® C	≥99,9	≤20	≤30	None	12x50 l	450 kg	108535

All BIOGON® products comply with Swedish and European food legislation requirements. These include regulations such as (EC) No 852/2004, Regulation (EC) No 178/2002, Regulation (EC) No 1333/2008, and Regulation (EC) No 231/2012. The gases in the BIOGON® product group contain no allergens. No genetically modified organisms (GMOs) are involved in the manufacturing process of BIOGON® gases.

Properties and origin

Liquid carbon dioxide is a colorless liquid that is denser than water. In its gaseous form, it is colorless with a sharp, pungent odor and taste. Carbon dioxide does not burn and does not support combustion. Atmospheric air contains about 0.04 percent carbon dioxide, while exhaled air contains about 4 percent by volume.

In its gaseous form, carbon dioxide is approximately 1,4 times heavier than ordinary air. Solid carbon dioxide (dry ice) has a temperature of -78 °C and does not melt like regular ice under atmospheric pressure; instead, it sublimates directly to gas. It reacts vigorously with strong bases, especially at elevated temperatures.

Carbon dioxide is extracted as a byproduct from various processes such as the production of fertilizers, ethanol, biodiesel, and from natural sources. For food-grade carbon dioxide, the gas undergoes extensive purification to meet the purity standards set by authorities. It must be stored at a pressure greater than 5,2 bar to remain in liquid form.

→ BIOGON® C (E 290) carbon dioxide (CO₂)

Physical data	Type of gas/designation	Carbon dioxide, CO ₂	
	Boiling point	-78,5 °C	
	Vapoization, 1 bar	348 kJ/kg	
	Heat capacity (15 °C)	0,81 kJ/kg K	
	Conversion factors	1 Nm ³ = 1,530 l	= 1,808 kg
		1 l = 0,652 Nm ³	= 1,181 kg
		1 kg = 0,553 Nm ³	= 0,847 l
	Critical values	Critical temperatur	31,04 °C
		Critical pressure	73,82 bar
		Critical density	0,468 kg/l
	1 Nm ³ = 1 m ³ vid 15 °C, 1 atm (technical atmosphere). The liter designation is used for gas in liquid phase.		

Safety Linde is committed to maintaining a high level of safety and protection for both personnel and the environment. Please review our safety data sheets before using the product, available on [linde.se](https://www.linde.se)

Delivery form Compressed gas mixtures in cylinders/packages.

[linde.se](https://www.linde.se)

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