BIOGON® Food-grade gases
BIOGON® O (E 948) gaseous oxygen (syre, O_2)

Application area

In the food industry, oxygen gas is mainly used in MAPAX® packaging of food in a modified atmosphere. This normally consists of one or more of the gases oxygen, nitrogen and carbon dioxide. Oxygen is used in the packaging of fruit and vegetables to ensure that the product continues to breathe, allowing freshness to be preserved. In connection with the packaging of fresh red meat, oxygen is used to preserve the red color of the meat. When there is not a high enough concentration of oxygen, the color of the meat changes from red to brown or grey. This is due to a change in the myoglobin complex that normally binds oxygen. The gas bottles with food gases are green and easy to recognize. The color codes on the bottle neck distinguish the different gases. Our food gases meet all EU requirements and are traceable.

Product specification

BIOGON O (E 948). Gaseous oxygen (oxygen, O_2)

Product name	Purity vol %	Impurities unit ppm		Odor, taste	Cylinder size	Content	Material-number
	O_2	H_2O	CnHm*				
BIOGON® O	≥99,5	≤20	≤100	None	20 l	4,3 m^3	108539
BIOGON® O	≥99,5	≤20	≤100	None	50 l	10,7 m^3	106283
BIOGON® O	≥99,5	≤20	≤100	None	12x50 l	129 m^3	108538

***Converted to methane.**

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 oxygen is a pale blue liquid that is slightly heavier than water. In gaseous form, oxygen is a colorless, tasteless and odorless gas. Oxygen itself does not burn but supports combustion. Atmospheric air contains 20,94% oxygen by volume and oxygen is about 1.1 times heavier than air. Oxygen dissolves easily in both water and alcohol. It is highly oxidizing and reacts violently with combustible substances in the event of heat development, ignition or explosion. Oxygen forms compounds in the form of oxides with almost all elements with the exception of halogens, noble gases and noble metals. The oxidation is accompanied by heat and light emission and many reactions require the presence of water or are accelerated by a catalyst. Liquid oxygen is extracted from air by distillation in an air separation plant.

→ BIOGON® O (E 948) gaseous oxygen (oxygen, O_2)

Physical data

Type of gas/designation	Oxygen, O_2	
Boiling point	–183 °C	
Vapoization, 1 bar	0,92 kj/kg	
Heat capacity (15 °C)	0,81 kj/kg K	
Conversion factors	1 Nm^3 = 1,418 l	= 1,311 kg
	1 l = 0,871 Nm^3	= 1,142 kg
	1 kg = 0,763 Nm^3	= 0,876 l
Critical values	Critical temperatur	–118,6 °C
	Critical pressure	50,4 bar
	Critical density	0,436 kg/l

1 Nm^3 = 1 m^3 at 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

Delivery form

Compressed gas in gas bottles/packages.

linde.se

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