

Food Grade Nitrogen

PROPERTIES PHYSICAL & CHEMICAL



NITROGEN

Molar mass: 28,0134 g/mol

Melting point: -210°C Boiling point: -195.9°C

Density of the gas phase (1.013 bar and

15°C): 1.185 kg/ma

Density of the liquid phase (1.013 bar at

boiling point): 0.8082 kg/

Gas density (1.013 bar at boiling point):

4.614 kg/ma

Latent heat of fusion (1.013 bar at the

triple point): 25.73 kJ/kg

Latent heat of vaporization (at 1.013 bar

boiling point): 198.38

kJ/kg

Critical temperature: -147°C Critical pressure: 33.999 bar

Compressibility factor (Z) (1.013 bar and

15°C): 0.9997

Concentration in the air: 78.08% vol.

APPLICATIONS:

As an inert gas, nitrogen has many uses and benefits for food and beverage packaging:

- 1- It "drives out" oxygen which plays an important role in the deterioration of food.
- 2- Nitrogen stabilizes flavors and seasonings by eliminating oxidation.
- 3- It is a superior alternative to vacuum packaging for delicate products such as crisps, cookies, and similar baked or fried products.
- 4- Nitrogen is a non-chemical food preservative.
- 5-It is gaining popularity over chemical alternatives in the disinfestation of fresh foods such as fruits, vegetables, and stored grains.
- 6- Replacing headspace in cans/reservoirs, purging large containers, bubbling cooking oils, transferring powders and liquids under pressure, etc.

TECHNICAL INFORMATION

Purity:	Impurities :				
N2	O2	NOx	CO	THC	H2O
≥ 99 %	≤1%	≤ 10 ppm	≤ 10 ppm	≤ 100 ppm	≤ 500 ppm

Conditioning:

GIN	LIN		
B50	Cryogenic mobil tank		

