Food

Liquefied Nitrous Oxide

NITROUS OXIDE:

Nitrogen oxide is a cryogenic gas with multiple applications both in the food industry, as a propellant, and in healthcare due to its anesthetic effect.
Due to being an oxidizing gas with a narcotic effect, it must be used with caution. This gas has a low critical temperature and high pressure when packaged. It is liquefied at cryogenic temperature for the storage and transport of large volumes.

Chemical Name:	CAS Number:
Nitrous oxide	10024-97-21

Technical Characteristics:

> Cryogenic gas
> Gas packaged in high-pressure containers with gas-phase valve
> Characteristic smell
> Narcotic effect
> Soluble with fats and suitable for the food industry

Packaging:

- Cylinder
- Cylinder blocks
- Container - Tank

Applications:

Propellant in food (spray cream or siphon to make foam).

Anesthetic gas

Combustible

Table of Properties:

Molecular Weight	28.05	g/mol
Boiling point	-88.47	°C
Latent heat of vaporization at boiling point	374.286	kJ/kg
Liquid density at boiling point	1230.458	kg/m3
Cp (specific heat at constant pressure)	8.73E-01	kJ/kg K
Cv (specific heat at constant volume)	6.80E-01	kJ/kg K
Specific Gravity	1.53	
Thermal conductivity	19.099	mW/m.K
Solubility in water	5.932E-4	mol/mol
Steam pressure	45.92	bar

Material Compatibility:

Metals	
Aluminum	Satisfactory
Brass	Satisfactory
Monel	Satisfactory
Copper	Satisfactory
Ferritic steel	Satisfactory
Stainless steel	Satisfactory
Zinc	Satisfactory
Titanium	No data

Plastics	
Polytetrafluoroethylene	Satisfactory
Polychlorotrifluoroethylene	Satisfactory
Polyvinylidene fluoride	Satisfactory
Polyvinyl chloride	Satisfactory
Ethylene tetrafluoroethylene	Satisfactory
Polycarbonate	No data
Polyamide	Satisfactory
Polypropylene	Satisfactory

Elastomers	
Butyl (isobutene-isoprene) rubber	Not recommended
Nitrile rubber NBR	Not recommended
Chloroprene	Not recommended
Chlorofluorocarbons	Not recommended
Silicone	Satisfactory
Perfluoroelastomers	No data
Fluoroelastomers	Satisfactory
Neoprene	Satisfactory
Polyurethane	Satisfactory
Ethylene-Propylene	Not recommended

Lubricants	
Mineral	Not recommended
Fluorocarbon base	Satisfactory

More Information:

If you want more information about our products, contact us.

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