

Nitrogen

Need compressed, liquid and various mixtures of nitrogen (N₂)?

The **Oil and Gas** industry uses nitrogen to increase reservoir reserves, and to fracture hydrocarbon-bearing formations to increase oil and gas production. In refining applications, nitrogen is used to blanket storage tanks and purge pipelines, strip Volatile Organic Compounds (VOCs) from chemical process streams and wastewater, and to reduce VOC emissions.

The **Food & Agriculture** industries use nitrogen as cryogenic agent in cooling, chilling and food freezing. Liquid nitrogen is the fastest freezing method for producing Individually Quick Frozen (IQF) foods. Nitrogen also plays a key role in reducing spoilage, discoloration and off-flavors, strengthening retail packaging.

The **Aerospace and Shipbuilding** industries use nitrogen as an assist gas for laser cutting applications.

Nitrogen plays many roles in the **Lab & Life Sciences industries**: Nitrogen NF is used to freeze and preserve blood, tissue, and other biological specimens. Nitrogen also freezes and destroys diseased tissue in cryosurgery and dermatology. Liquid nitrogen is also used with a variety of lab equipment, such as cold traps, gas adsorption systems, and NMR and MRI instruments. Gaseous nitrogen is used to protect a process from moisture intrusion, oxidation, degradation and contamination (e.g., purging, pressure transferring, mixing and blanketing). The Lab & Life Sciences industries also use gaseous nitrogen as a carrier, diluent, or nebulization gas in various analytical instruments.

In **Metal Fabrication**, nitrogen is used as a purge gas, and as an assist gas for laser and plasma cutting.

Please see the table below for information and to access safety data sheets on nitrogen available from Central Welding Supply

Product Name	Concentration
Nitrogen: Research Grade* >99.9999% *Available upon request	Oxygen < 0.5 ppm Water < 0.2 ppm Carbon Monoxide < 0.1 ppm Carbon Dioxide < 0.1 ppm Total Hydrocarbon (as CH ₄) < 0.1 ppm

Nitrogen: Ultra Pure Carrier >99.9995%	Oxygen < 1 ppm Water < 1 ppm Total Hydrocarbon (as CH ₄) < 0.5 ppm CO + CO ₂ < 1.0 ppm
Nitrogen: Ultra High Purity >99.999%	Oxygen < 2 ppm Water < 1 ppm Total Hydrocarbon (as CH ₄) < 0.5 ppm
Nitrogen Industrial Grade >99.998%	Oxygen < 5 ppm Water < 3 ppm
Nitrogen: Food Grade >99.0%	Oxygen < 1% Carbon Monoxide < 10 ppm Carbon Dioxide < 300 ppm Moisture < 55.8 ppm Identity: Positive Odor: None
Medical Nitrogen: NF Grade >99.0%	Oxygen < 1.0% Identification: Positive Odor: None Carbon Monoxide < 0.001% (10 ppm)

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Compressed, Nitrogen comes in a variety of cylinder types and sizes to meet your purity and volume requirements.

High Pressure Steel Cylinders				
Size/Name	Cubic Ft*	Width	Height	Weight
21	20 cf	5"	17"	15 lbs
46	40 cf	7"	24"	25 lbs
80	80 cf	7"	33"	47 lbs
125	125 cf	7"	43"	61 lbs
150	150 cf	7.5"	46"	70 lbs
250	250 cf	8.5"	51"	115 lbs
330	300 cf	9"	55"	135 lbs

*Nominal Capacity N₂ @ 70F & 1atm.