

Nitrogen

Transportation Information

UN Number: 1066



Formula

N₂

MSDS Reference

P-4631

CAS Number

7727 - 37 - 9

General Description

Colorless, odorless, nonflammable inert gas.

Shipping Name	Nitrogen, Compressed	Nitrogen, Compressed	Nitrogen, Compressed
Hazard Class	2.2	2.2	2.2
Label	Nonflammable Gas	Nonflammable Gas	Nonflammable Gas

Product and Package Information

Part Number	Product Grade	Quality Assay/ Specification	Cylinder Style	Content ft ³ /m ³	Regulator Recommendations See Section F, Page 1
NI 6.0RS	6.0	99.9999 %*	AS	142/3.94	4000 Series: Non-corrosive
	Research	O ₂ < 0.5 ppm H ₂ O < 0.2 ppm CO ₂ < 0.1 ppm CO < 0.1 ppm THC < 0.1 ppm	AQ	82/2.27	
NI 5.5CE	5.5	99.9995 %*	AS	142/3.94	4000 Series: Non-corrosive
	Continuous	O ₂ < 0.5 ppm	AQ	82/2.27	
	Emission	H ₂ O < 2 ppm	A3	31/0.86	
	Monitoring	CO ₂ < 1 ppm			
	Zero	CO < 0.5 ppm THC < 0.1 ppm NO _x < 0.1 ppm SO ₂ < 0.1 ppm			
NI 5.5EC	5.5	99.9995 %*	AS	142/3.94	4000 Series: Non-corrosive
	Electron	H ₂ O < 2 ppm	T	304/8.43	
	Capture	O ₂ < 1 ppm	K	228/6.32	
	Detector	CO ₂ < 0.1 ppm			
		CO < 0.1 ppm THC < 0.1 ppm Halocarbons < 500 ppt			
The sum of O ₂ , CO ₂ , THC, as CH ₄ , H ₂ and H ₂ O < 6 ppm.					
NI 5.5TG	5.5	99.9995 %*	T	304/8.43	4000 Series: Non-corrosive
	Trace	H ₂ O < 2 ppm	K	228/6.32	
	Analytical*	O ₂ < 1 ppm			
		CO ₂ < 0.1 ppm			
		CO < 1 ppm			
THC < 0.1 ppm Halocarbons < 500 ppt					
The sum of O ₂ , CO ₂ , THC, as CH ₄ , H ₂ and H ₂ O < 6 ppm.					
NI 5.5LS	5.5	99.9995 %*	AT	250/6.93	4000 Series: Non-corrosive
	LaserStar™	H ₂ O < 2 ppm			
		O ₂ < 1 ppm			
		Halocarbons < 50 ppt			
		THC < 0.1 ppm			

* Argon free basis.

Product and Package Information

Part Number	Product Grade	Quality Assay/ Specification	Cylinder Style	Content ft ³ /m ³	Regulator Recommendations See Section F, Page 1
NI 5.0LS	5.0 <i>LaserStar™</i>	99.999 %*	T	304/8.43	4000 Series: Non-corrosive
		H ₂ O < 3 ppm O ₂ < 1 ppm THC < 0.5 ppm	K	228/6.32	
NI 5.0UM	5.0 Ultra Zero Ambient Monitoring	99.999 %*	T	304/8.43	4000 Series: Non-corrosive
		O ₂ < 2 ppm	K	228/6.32	3000 Series: Non-corrosive
		H ₂ O < 2 ppm	Q	76/2.11	
		CO ₂ < 0.5 ppm	AS	142/3.94	
		CO < 0.1 ppm	AQ	82/2.27	
		THC < 0.5 ppm SO ₂ < 0.005 ppm NO _x < 0.02 ppm SF ₆ < 0.001 ppm	A3	31/0.86	
NI 5.0VC	5.0 Volatile Organic Compound Free	99.999 %*	AS	142/3.94	4000 Series: Non-corrosive
		O ₂ < 2 ppm	AQ	82/2.27	3000 Series: Non-corrosive
		H ₂ O < 2 ppm	A3	31/0.86	
		CO ₂ < 0.3 ppm			
		CO < 0.01 ppm THC < 0.1 ppm SO ₂ < 0.01 ppm			
		Can be individually analyzed for customer selected VOC component(s).			
NI 5.0UH	5.0 Ultra High Purity	99.999 %*	T	304/8.43	4000 Series: Non-corrosive
		O ₂ < 1 ppm	K	228/6.32	3000 Series: Non-corrosive
		H ₂ O < 3 ppm			
		THC < 0.5 ppm			
NI 4.8VE	4.8 Vehicle Emission Zero	99.998 %*	T	304/8.43	3000 Series: Non-corrosive
		O ₂ < 0.5 ppm	K	228/6.32	2000 Series: Non-corrosive
		H ₂ O < 1 ppm	AS	142/3.94	100 Series: Non-corrosive
		CO ₂ < 1 ppm**	AQ	82/2.27	
		CO < 0.5 ppm THC < 0.1 ppm NO _x < 0.1 ppm	A3	31/0.86	
		Complies with Title 40 CFR86.114-79. For BAR applications, please see page E11. For other applications, alternative specifications may apply.			
NI 4.8Z	4.8 Zero	99.998 %*	T	304/8.43	3000 Series: Non-corrosive
		THC < 0.5 ppm	K	228/6.32	2000 Series: Non-corrosive
			Q	76/2.11	100 Series: Non-corrosive
NI 4.8	4.8	99.998 %	6K	488/13.53	4092 Series: Special Purpose
		O ₂ < 5 ppm	4K	430/11.92	4092 Series: Special Purpose
		H ₂ O < 3 ppm	3K	341/9.46	4092 Series: Special Purpose
			T	304/8.43	3000 Series: Non-corrosive
			K	228/6.32	2000 Series: Non-corrosive
			Q	76/2.11	100 Series: Non-corrosive

* Argon free basis.

 ** Available with 315-385 ppm CO₂ on request.

Product and Package Information

Part Number	Product Grade	Quality Assay/ Specification	Cylinder Style	Content ft ³ /m ³	Regulator Recommendations See Section F, Page 1
NI 4.8OF	4.8	99.998 %*	T	304/8.43	3000 Series: Non-corrosive 2000 Series: Non-corrosive
	Oxygen Free	O ₂ < 0.5 ppm	K	228/6.32	
NI 6.0SP	6.0	99.9999 %*	AT	250/6.93	Valve Panel
	Semiconductor	O ₂ < 0.2 ppm	AS	142/3.94	7000 Series: Semiconductor
	Process	H ₂ O < 0.2 ppm			4000 Series: Non-corrosive
	Gas	CO ₂ < 0.1 ppm			
		CO < 0.1 ppm			
NI 5.5SP	5.5	99.9995 %*	AT	250/6.93	Valve Panel
	Semiconductor	O ₂ < 0.5 ppm	AS	142/3.94	7000 Series: Semiconductor
	Process	H ₂ O < 0.5 ppm			4000 Series: Non-corrosive
	Gas	CO ₂ < 0.5 ppm			
		CO < 1 ppm			
NI 5.0SP	5.0	99.999 %*	T	304/8.43	Valve Panel
	Semiconductor	O ₂ < 1 ppm	K	228/6.32	7000 Series: Semiconductor
	Process	H ₂ O < 3 ppm			4000 Series: Non-corrosive
	Gas	CO ₂ < 1 ppm			3000 Series: Non-corrosive
		CO < 2 ppm			
		THC < 1 ppm			
		H ₂ < 2 ppm			

* Argon free basis.

When ordering, please add the desired cylinder style to the end of the above part number.
Add "D" for DISS connection (NI 5.5SP-**ATD**)

See Sections G and H for safety and technical information.

Cylinder Information

Cylinder Style	Connection CGA/DISS	Pressure psig/bar	Gross Weight lb/kg
6K	677	6000/460	340/154
4K	680	4500/310	179/81
3K	680	3500/268	213/97
T	580	2640/183	165/75
K	580	2200/154	149/68
Q	580	2200/154	69/31
AT	580/ 718	2200/154	108/49
AS	580/ 718	2000/138	60/27
AQ	580	2200/154	46/21
A3	580	2200/154	20/9

Products are also available in larger quantities, such as 6-, 12- and 16- pack cylinder clusters as well as dewars, microbulk, tube trailers and bulk.

For additional information on our semiconductor process gases, see Section E – Semiconductor (pages E45-E47)

See page C67 for cryogenic liquid nitrogen.

See Section E – Medical Gases for Nitrogen – N.F. Grade (page E37)