



Nitrogen Dioxide

Description

Formula: $\text{NO}_2, \text{N}_2\text{O}_4$
 Synonym: Dinitrogen Tetraoxide, Nitrogen Peroxide, Nitrogen Tetraoxide


Gas Data

Molecular Weight: 46.01
 Density: 3.394 kg/m³ @ 21.1°C, 101.325 kPa
 0.212 lb/ft³ @ 70°F, 14.696 psia
 Specific Volume: 0.2946 m³/kg @ 21.1°C, 101.325 kPa
 4.72 ft³/lb @ 70°F, 14.696 psia

Safety Information

Permissible Exposure Limit (TLV): 3 ppm

Shipping Information

CAS Registry Number: 10102-44-0
 UN Number: UN 1067
 ECCN Number: OA018
 DOT Proper Shipping Name: Dinitrogen Tetroxide
 DOT Classification: 2.3, Hazard Zone A (gas poisonous by inhalation)
 DOT Label: INHALATION HAZARD 
 OXIDIZER, CORROSIVE GAS
 TC Shipping Name: Dinitrogen Tetroxide, Liquefied
 TC Classification: 2.3, 5.1
 TC Label: POISON GAS, OXIDIZER

Cylinder Specifications

Cylinder Size	Valve Outlet CGA No.	Pressure		Approximate Ship Weight	
		psig @ 70°F	kPa @ 21.1°C	lb	kg
1P	660	0	0	252	114
3P	660	0	0	49	22
4P	660	0	0	27	12
6P	660	0	0	20	9

Gas Grade Purity Specifications	Product Code	Cylinder Size	Content		Equipment Recommendations	Model No.	Page No.
			US	Metric			
Nitrogen Dioxide CP Grade 99.5%	G1558116	1P	120 lb	54.43 kg	Manual Control	61A-660	417
	G1558117	2P	40 lb	18.14 kg	Cross Purge	4774-660	422
	G1558157	3P	10 lb	4.54 kg	Personal Monitor	IQ250	398
	G1558169	4P	5 lb	2.27 kg	Leak Detector	8081A	404
	G1558173	6P	1 lb	454 gm	Detector Tube	8014-117SA	392

A Certificate of Conformance will be provided on request.

All except 6P may be equipped with full length eductor tube upon request.

The Manual Control Valve Model 61A-660 is only recommended for vapor phase control. If necessary, use a controller temperature device such as a water bath to slowly increase the Nitrogen Dioxide vapor pressure. Do not exceed 120°F. At 104°F NO_2 vapor pressure is 20 psig. At 120°F NO_2 vapor pressure is 33 psig.