



## 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/m<sup>3</sup> @ 21.1°C, 101.325 kPa  
 0.212 lb/ft<sup>3</sup> @ 70°F, 14.696 psia  
 Specific Volume: 0.2946 m<sup>3</sup>/kg @ 21.1°C, 101.325 kPa  
 4.72 ft<sup>3</sup>/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: OAO18  
 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 psig @ 70°F	Pressure kPa @ 21.1°C	Approximate Ship Weight	
				lb	kg
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 US	Content Metric	Equipment Recommendations	Model No.	Page No.
Nitrogen Dioxide CP Grade 99.5%	G1558157	3P	10 lb	4.54 kg	Manual Control	61A-660	417
	G1558169	4P	5 lb	2.27 kg	Cross Purge	4774-660	422
	G1558173	6P	1 lb	454 gm	Personal Monitor	IQ250	398
					Leak Detector	8081A	404
					Detector Tube	8014-1175A	392

A Certificate of Conformance will be provided on 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  $\text{NO}_2$  vapor pressure is 20 psig. At 120°F  $\text{NO}_2$  vapor pressure is 33 psig.