

**Marking**

CAS

Characterization acc. ADR

10102-43-9  
UN 1660 NITRIC OXIDE,  
COMPRESSED, 2.3 (5.1) (8),  
(D)

Cylinder Marking



Shoulder color: yellow

**Essential properties**

compressed gas, odorless, oxidizing, corrosive, toxic

Symbols of risks

**Physical Properties**

molecular weight	30,0061 kg/kmol
gas density at 0°C and 1,013 bar	1,3402 kg/m <sup>3</sup>
density ratio to air	1,0366

For additional safety information see safety data sheet \*-NO-088

**Valves / Manifolds**

Valve connection

acc. to national regulations

Recommended Manifolds

Spectrocem SBE3 with E 51



Specification / receptacles			
		Nitric oxide 2.5	
<b>Composition</b>			
NO	≥	99.5	Vol.-%
<b>Impurities</b>			
N <sub>2</sub> O	≤	1,000	ppmv
N <sub>2</sub>	≤	1,000	ppmv
NO <sub>2</sub>	≤	1,000	ppmv
<b>Cylinder / Contents</b>			
F 50	3,39kg	0.63	kg

**Remarks**

Applications:

Forming of oxinitrides in semiconductor industries

Catalyst research

Part of mixtures in treatment of pulmonary diseases

Delivery only with end user statement!

No delivery to private person!

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**Description**

Colourless, toxic, oxidizing, in presence of moisture corrosive, odorless gas. Reacts with oxygen from air very easy to auburn corrosive nitrogen dioxide. Acc. to ISO 10298: LC50/1h = 115 ppm.

**Materials**Cylinders and valves: any usual materials except brass or copper(-alloys).  
With valves made of brass or copper(-alloys) danger of stress corrosion cracking by humidity.  
Seals: PTFE, PCTFE, PVDF

Physical Properties			
molecular weight	30,0061 kg/kmol	vapour pressure at 20°C	
critical point		gas density at 0°C and 1,013 bar	1,3402 kg/m <sup>3</sup>
temperature	180 K	density ratio to air	1,0366
Pressure	64,848 bar	gas density at 15°C and 1 bar	1,254 kg/m <sup>3</sup>
density	0,52 kg/l	conversion factor	
triple point		liquid at Ts to m <sup>3</sup> gas (15°C, 1 bar)	
temperature	109,55 K	virial coefficient	
Pressure	0,21915 bar	Bn at 0°C	-1,12*10 <sup>-3</sup> bar <sup>-1</sup>
boiling point		B30 at 30°C	-0,75*10 <sup>-3</sup> bar <sup>-1</sup>
temperature	121,40 K; -152 °C	gaseous state at 25°C and 1 bar	
liquid density	1,188 kg/l	specific heat capacity cp	0,9941 kJ/kg K
evaporation heat	461 kJ/kg	thermal conductivity	257*10 <sup>-4</sup> W/m K
		dynam. viscosity	19,27*10 <sup>-6</sup> Ns/m <sup>2</sup>