

**Marking**

**CAS-Number** 7440-01-9

**Characterization acc. ADR** UN 1065, Neon, compressed, 2.2 Class 2, 1 A

**Cylinder Marking**

shoulder:  
light green

**Essential properties**

Colourless, odorless rare gas, compressed, lighter than air

**Symbols of Risks**

gas, compressed

**Physical Properties**

molecular weight: 20,179 kg/kmol  
 gas density at 0°C and 1,013 bar: 0,9000 kg/m<sup>3</sup>  
 density ratio to air: 0,6960

For additional safety information see Material-/safety data sheet No. \*-NE-086A

**Valves / Manifolds**

**Valve connection** acc. to national standards

**Recommended Manifolds** Spectrolab FM 51 / FM 52exact  
Spectrocem FE 51 / FE 52exact

**Specifications / Forms of delivery**

		5.0	
<b>Composition</b>			
Ne	>	99,999	Vol.-%
<b>Impurities</b>			
O <sub>2</sub>	<	1	ppmv
N <sub>2</sub>	<	2	ppmv
H <sub>2</sub> O	<	1	ppmv
He	<	6	ppmv
CO <sub>2</sub>	<	0,5	ppmv
HC	<	0,1	ppmv
<b>Cylinders / Contents</b>			
F 10 200 bar		1860,0	l
F 50 200 bar		9260,0	l

**Remarks**

Applications:  
 Filling gas for tubular neon lamps  
 Component of laser gas mixtures (Helium-Neon lasers, Excimerlasers)  
 Component of panning gas (filling gas for plasma display panels [PDP])  
 Buoyancy gas for stratospheric balloons

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**Description**

Colourless, odorless rare gas, lighter than air. In closed rooms the breathing air is displaced (danger of asphyxiation!)

**Materials**

Cylinders and Valves: any usual materials  
Seals: PTFE, PCTFE, PVDF, PA, PP, IIR, NBR, CR, FKM,Q, EPDM

**Physical Properties**

<b>molecular weight</b>	20,179 kg/kmol	<b>vapour pressure at 20°C</b>	
<b>Critical Point</b>		<b>gas density at 0°C and 1,013 bar</b>	0,9000 kg/m <sup>3</sup>
temperature	44,403 K	<b>density ratio to air</b>	0,6960
Pressure	26,54 bar	<b>gas density at 15°C and 1 bar</b>	0,8420 kg/m <sup>3</sup>
density	0,48400 kg/l	<b>Conversion Factor</b>	
<b>Triple Point</b>		liquid at Ts to m <sup>3</sup> gas (15°C, 1 bar)	
temperature	24,544 K	<b>Virial Coefficient</b>	
Pressure	0,43300 bar	Bn at 0°C	0,47*10 <sup>-3</sup> bar <sup>-1</sup>
<b>Boiling Point</b>		B30 at 30°C	0,46*10 <sup>-3</sup> bar <sup>-1</sup>
temperature	27,10 K; -246 °C	<b>Gaseous State at 25°C and 1 bar</b>	
liquid density	1,2060 kg/l	specific heat capacity cp	1,030 kJ/kg K
evaporation heat	86,07 kJ/kg	thermal conductivity	486*10 <sup>-4</sup> W/m K
		dynam. viscosity	31,6*10 <sup>-6</sup> Ns/m <sup>2</sup>