

**Marking****CAS**

Characterization acc. ADR

**Cylinder Marking**7440-01-9  
UN 1065 NEON,  
COMPRESSED, 2.2, (E)

Shoulder color: bright green

**Essential properties**

compressed gas, lighter than air, colorless, odorless

**Symbols of risks****Physical Properties**

molecular weight	20,179 kg/kmol
gas density at 0°C and 1,013 bar	0,9000 kg/m³
density ratio to air	0,6960

For additional safety information see safety data sheet \*-NE-086A

**Valves / Manifolds****Valve connection**

acc. to national regulations

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

Specification / receptacles			
		Neon 5.0	
<b>Composition</b>			
Ne	≥	99.999	Vol.-%
<b>Impurities</b>			
He	≤	6	ppmv
CO <sub>2</sub>	≤	0.5	ppmv
O <sub>2</sub>	≤	1	ppmv
N <sub>2</sub>	≤	2	ppmv
HC	≤	0.1	ppmv
H <sub>2</sub> O	≤	1	ppmv
<b>Cylinder / Contents</b>			
F 10 200 bar		1.9	m³
F 50 200 bar		9.3	m³

**Remarks**

## Applications:

Filling gas for tubular neon lamps

Component of laser gas mixtures (Helium-Neon lasers, Excimerlasers)

Buoyancy gas for stratospheric balloons

Contents in m³ at 15°C, 1 bar

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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>