

Marking**CAS-Number**

7439-90-9

Characterization acc. ADRUN 1056, Krypton, compressed, 2.2
Class 2, 1 A**Cylinder Marking**shoulder:
light green**Essential properties**

Colourless, odorless rare gas, compressed, heavier than air

Symbols of Risks

gas, compressed

Physical Properties

molecular weight:	83,80 kg/kmol
gas density at 0°C and 1,013 bar:	3,7491 kg/m ³
density ratio to air:	2,8997

For additional safety information see Material-/safety data sheet No. *-KR-077A

Valves / Manifolds**Valve connection**

acc. to national standards

Recommended ManifoldsSpectrolab FM 51 / FM 52exact
Spectrochem FE 51 / FE 52exact**Specifications / Forms of delivery**

		4.0	5.0	
Composition				
Kr	>	99,99	99,999	Vol.-%
Impurities				
O ₂	<	2	0,5	ppmv
N ₂	<	20	1,5	ppmv
H ₂ O	<	5	1	ppmv
HC	<	1	0,5	ppmv
Ar	<	10	1	ppmv
Xe	<	50	5	ppmv
CF ₄	<	-	0,5	ppmv
Cylinders / Contents				
F10		1000	1000	l
F 10		2000	2000	l
F 50		10000	10000	l

RemarksApplications:
lightning
filling gas for windows (insulating gas)
laser technology

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Description

Colourless, odorless rare gas. In closed rooms the breathing air is displaced (danger of asphyxiation!). Under special conditions Krypton may react with Fluorine to the unstable compounds Kryptondi- resp. -tetrafluoride.

Materials

Cylinders and Valves: any usual materials

Seals: PTFE, PCTFE, PVDF, PA, PP; IIR, NBR, CR, FKM, Q, EPDM

Physical Properties			
molecular weight	83,80 kg/kmol	vapour pressure at 20°C	
Critical Point		gas density at 0°C and 1,013 bar	3,7491 kg/m ³
temperature	209,4 K	density ratio to air	2,8997
Pressure	55,02 bar	gas density at 15°C and 1 bar	3,506 kg/m ³
density	0,919 kg/l	Conversion Factor	
Triple Point		liquid at Ts to m ³ gas (15°C, 1 bar)	
temperature	115,777 K	Virial Coefficient	
Pressure	0,73055 bar	Bn at 0°C	-2,74*10 ⁻³ bar ⁻¹
Boiling Point		B30 at 30°C	-1,95*10 ⁻³ bar ⁻¹
temperature	119,802 K; -153 °C	Gaseous State at 25°C and 1 bar	
liquid density	2,413 kg/l	specific heat capacity cp	0,24809 kJ/kg K
evaporation heat	107,41 kJ/kg	thermal conductivity	95,1*10 ⁻⁴ W/m K
		dynam. viscosity	25,5*10 ⁻⁶ Ns/m ²