Octafluoro cyclobutane C_4F_8

also: Perfluorocyclobutane, RC318

ELECTRONIC GASES

Marking

CAS-Number 115-25-3

Characterization acc. ADR UN 1976, Octafluoro cyclobutane, 2.2
Class 2, 1A

Cylinder Marking  shoulder: light green

Essential properties

Colourless gas with etheric odor, liquified, heavier than air

Symbols of Risks  gas, liquified

Physical Properties

molecular weight:	200,031 kg/kmol
gas density at 0°C and 1,013 bar:	9,338 kg/m³
density ratio to air:	7,224
vapour pressure at 20°C:	2,694 bar

For additional safety information see Material-/safety data sheet No. *-C4F8-095

Valves / Manifolds

Valve connection acc. to national standards

Recommended Manifolds Spectrolab control valve PN 40
Spectropur

Specifications / Cylinders		e.g.	
Composition			
C_4F_8	>	99,999	Gew.-%
Impurities			
H_2O	<	1	ppmw
$O_2 + N_2$	<	1	ppmw
other FC`s	<	4	ppmw
acid (as HCl)	<	0,1	ppmw
Cylinder / Contents			
F 10 Alu		2,0	kg
F 40 Alu		100	kg

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Version: 2.0

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Description

Colourless, liquified gas with etheric odor. Chemically and thermically very stable.

detection halogen leakage detector

Materials
Cylinders and valves: any usual materials
Seals: PTFE, PA, IIR, NBR, CR, EPDM

Physical Properties

molecular weight	200,031 kg/kmol	**vapour pressure at 20°C**	2,694 bar
Critical Point		**gas density at 0°C and 1,013 bar**	9,338 kg/m³
temperature	388,37 K	**density ratio to air**	7,224
Pressure	27,77 bar	**gas density at 15°C and 1 bar**	8,771 kg/m³
density	0,616 kg/l	**Conversion Factor**	
Triple Point		liquid at Ts to m³ gas (15°C, 1 bar)	
temperature	233,0 K	**Virial Coefficient**	
Pressure	0,191 bar	Bn at 0°C	$-4{,}37*10^{-2}$ bar^{-1}
Boiling Point		B30 at 30°C	$-2{,}98*10^{-2}$ bar^{-1}
temperature	266,73 K; -6,42 °C	**Gaseous State at 25°C and 1 bar**	
liquid density	1,639 kg/l	specific heat capacity cp	0,816 kJ/kg K (30 °C)
evaporation heat	116 kJ/kg	thermal conductivity	$67*10^{-4}$ W/m K (20 °C)
		dynam. viscosity	

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