

RS-44 (R424A) PHYSICAL PROPERTIES

PROPERTY		RS-44	R22
Molecular Weight		108.0	86.5
Boiling point (1 atm)	^o C	-38.7 ⁽¹⁾	-40.8
	^o F	-37.6 ⁽¹⁾	-41.4
Critical Temperature	^o C	88.8	96.1
	^o F	191.8	204.8
Critical Pressure	bara	40.4	49.9
	psia	586	724
Liquid Density (25 ^o C)	kg/m ³	1169	1191
Density of saturated vapour (25 ^o C)	kg/m ³	43.6	44.2
Latent Heat of Vaporisation at boiling point	kJ/kg	196 ⁽¹⁾	234
Cp (25 ^o C & 1atm)	kJ/kg.K	0.850	0.662
Cv (25 ^o C & 1bara)	kJ/kg.K	0.765	0.559
Cp (25 ^o C & 1bara)	kJ/kg.K	0.85	0.662
Cp/Cv (25 ^o C & 1 bara)		1.111	1.185
Vapour Pressure (25 ^o C)	bara	9.67 ⁽¹⁾	10.4
	psia	140.2 ⁽¹⁾	151
Vapour Viscosity (25 ^o C & 1 bara)	cP	0.0122	0.0126
Liquid Viscosity (25 ^o C)	cP	0.167	0.166
Liquid Thermal Conductivity (25 ^o C)	W/m.K	0.072	0.0837
Surface Tension (25 ^o C)	N/m	0.00656	0.00808
Specific heat of liquid (25 ^o C)	kJ/kg.K	1.43	1.26
Ozone Depletion Potential	ODP	0	0.055
Flammability limit in air (1 atm)	vol%	none	none
Inhalation exposure (8 hour day & 40 hour week)	ppm	1000	1000
(1) Bubble Point			

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