TECHNICAL DATA SHEET

R-410A

Components

Chemical Name	Chemical Formula	%By weight	CAS No	EC No
Pentafluoroethane (R125)	CF_3CHF_2	%50	354-33-6	206-557-8
Difluoromethane (R32)	CH_2F_2	%50	75-10-5	200-839-4

Physical and chemical properties

At normal temperature and pressure, R410A is a colourless gas.

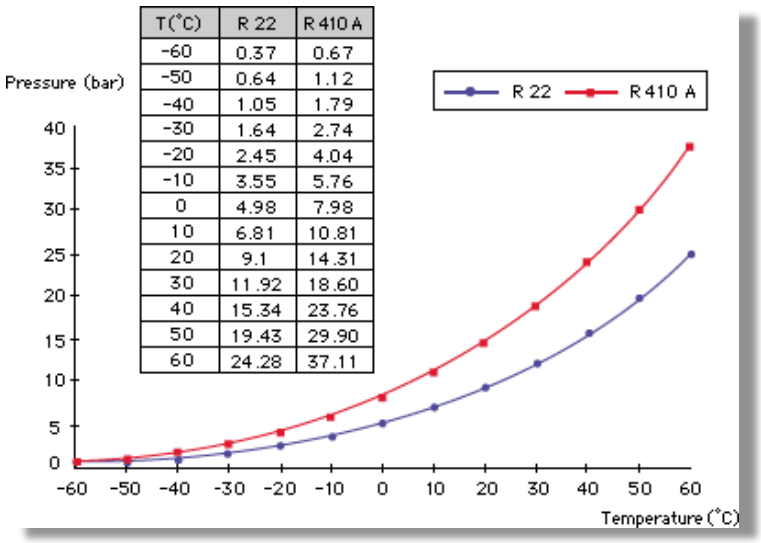
Physical state…….. Gas
Form……Compressed liquefied gas
Molecular Weight (g/mol)… ……72.6
Boiling Point at 1 atm, (°C) ……..……...…-51.58
Sliding boiling at 1 atm, (K) ……..……0.1
Vapor pressure 25°C, (bar)……...……16.5
Liquid Density at 25°C, (kg/m^3) ……...……. 1062
Critical Temperature, °C……..72.13
Critical Pressure, bar……..……..49.26
Critical Density, (kg/m^3) ……..……..488.90
Heat Capacity of Liquid at 25°C,kJ/kgK…… 1.84
Heat Capacity of Vapor at 1 atm at 25°C, kJ/kgK……0.83
Solubility in water 25°C (Ppm) ……..……Negligible
Flammability (solid, gas) (%vol)……None
ODP……0
GWP…….....2088*

Commercial Specifications (ISO9002)

Purity, %, min……..…99.5
Moisture content, ppm by weight. ……10
Acid Value, ppm by weight……..….0.1
Residue, mg.kg……100

*The regulation on fluorinated greenhouse gases of EU 517-2014 has been taken considered.

Comparison Chart Temperature/ Pressure R-22-R-410A



Thermodynamic Properties

TEMP. (°C)	ABSOLUTE PRESSURE (bar)		DENSITY (Kg/m3)		ENTHALPY (kJ/Kg)		ENTROPY (kJ/Kg.K)	
	LIQUID	VAPOUR	LIQUID	VAPOUR	LIQUID	VAPOUR	LIQUID	VAPOUR
-50	1.124	1.121	1339.59	4.54	136.46	406.37	0.8104	2.0201
-45	1.428	1.424	1323.93	5.67	143.01	409.29	0.8393	2.0066
-40	1.793	1.788	1308.01	7.02	149.62	412.14	0.8679	1.9941
-35	2.228	2.222	1291.79	8.62	156.31	414.92	0.8961	1.9823
-30	2.740	2.732	1275.24	10.48	163.07	417.62	0.9240	1.9712
-25	3.340	3.330	1258.34	12.65	169.91	420.23	0.9517	1.9607
-20	4.036	4.023	1241.03	15.15	176.83	422.74	0.9791	1.9508
-15	4.838	4.821	1223.28	18.04	183.83	425.13	1.0062	1.9413
-10	5.757	5.735	1205.04	21.35	190.92	427.40	1.0331	1.9321
-5	6.802	6.774	1186.27	25.13	198.11	429.52	1.0599	1.9233
0	7.984	7.950	1166.89	29.44	205.41	431.50	1.0864	1.9146
5	9.315	9.274	1146.86	34.34	212.81	433.31	1.1129	1.9061
10	10.805	10.756	1126.10	39.91	220.34	434.94	1.1392	1.8977
15	12.467	12.408	1104.53	46.22	228.00	436.38	1.1655	1.8892
20	14.312	14.241	1182.05	53.38	235.80	437.59	1.1918	1.8807
25	16.351	16.269	1158.55	61.50	243.77	438.56	1.2181	1.8720
30	18.598	18.502	1133.91	70.71	251.91	439.27	1.2445	1.8631
35	21.063	20.954	1107.95	81.18	260.26	439.68	1.2710	1.8538
40	23.760	23.636	980.48	93.12	268.84	439.76	1.2977	1.8442
45	26.701	26.563	951.26	106.79	277.69	439.46	1.3248	1.8339
50	29.899	29.745	919.95	122.55	286.87	438.72	1.3524	1.8229

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Mollier Diagram