



R-245fa

TECHNICAL DATA SHEET

Components

Chemical Name	Chemical Formula	%By weight	CAS No	EC No
1,1,1,3,3-Pentafluoropropane (R-245fa)	C ₃ H ₃ F ₅	%100	460-73-1	419-170-6

Physical and chemical properties

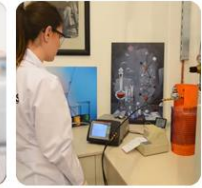
At normal temperature and pressure, R-245fa is a colourless gas.

Physical state.....	Gas
Form.....	Compressed liquefied gas
Molecular Weight (g/mol).....	134.05
Boiling Point at 1.013 bar(°C)	15.13
Melting Point (°C)	-102.1
Liquid Density at 25°C, (kg/m ³)	1339
Solubility in water 25°C (% weight)	0.16
Liquid Viscosity 25°C, (10 ⁻³ Pa.s)	0.401
Flammability in air.....	None
Critical Temperature, °C.....	154.01
Critical Pressure, bar.....	36.51
Critical Density, kg/m ³	516
ODP.....	0
GWP.....	1030*

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.



Thermodynamic Properties

TEMP. (°C)	ABSOLUTE PRESSURE(bar)	DENSITY (Kg/dm ³)		ENTHALPY (kJ/Kg)		ENTROPY (kJ/Kg.K)	
		LIQUID	VAPOUR	LIQUID	VAPOUR	LIQUID	VAPOUR
-50	0,028	1,525	0,204	138,117	368,684	0,750	1,783
-45	0,040	1,513	0,288	144,169	372,163	0,777	1,776
-40	0,057	1,502	0,399	150,244	375,671	0,803	1,770
-35	0,079	1,490	0,543	156,347	379,204	0,829	1,765
-30	0,109	1,478	0,729	162,478	382,761	0,855	1,761
-25	0,146	1,466	0,963	168,641	386,339	0,880	1,757
-20	0,194	1,454	1,256	174,837	389,936	0,904	1,754
-15	0,254	1,441	1,617	181,069	393,549	0,929	1,752
-10	0,328	1,429	2,058	187,339	397,177	0,953	1,750
-5	0,419	1,417	2,592	193,649	400,817	0,977	1,749
0	0,529	1,404	3,230	200,000	404,467	1,000	1,749
5	0,662	1,391	3,989	206,395	408,124	1,023	1,748
10	0,820	1,378	4,884	212,836	411,786	1,046	1,749
15	1,008	1,365	5,930	219,325	415,451	1,069	1,749
20	1,227	1,352	7,147	225,865	419,115	1,091	1,750
25	1,482	1,339	8,553	232,456	422,777	1,113	1,752
30	1,778	1,325	10,169	239,103	426,432	1,135	1,753
35	2,117	1,311	12,018	245,807	430,079	1,157	1,755
40	2,505	1,297	14,124	252,571	433,713	1,179	1,757
45	2,945	1,282	16,513	259,397	437,330	1,201	1,760
50	3,442	1,267	19,213	266,290	440,926	1,222	1,762
55	4,001	1,252	22,257	273,251	444,496	1,243	1,765
60	4,626	1,237	25,679	280,286	448,036	1,264	1,768
65	5,323	1,221	29,519	287,397	451,538	1,285	1,771
70	6,096	1,204	33,820	294,589	454,996	1,306	1,774
75	6,951	1,188	38,632	301,867	458,401	1,327	1,777
80	7,893	1,170	44,013	309,237	461,745	1,348	1,780
85	8,928	1,152	50,030	316,706	465,017	1,369	1,783
90	10,061	1,133	56,763	324,280	468,204	1,389	1,786
95	11,298	1,114	64,306	331,969	471,291	1,410	1,788
100	12,646	1,093	72,777	339,784	474,259	1,431	1,791