

R-22 pressure–temperature chart

Chlorodifluoromethane — a single-component HCFC. Also written R22. Saturation pressure from −70 to 94 °C, every 2 K, in kPa gauge and bar gauge, computed with CoolProp.

SAFETY CLASS	GWP, 100-YEAR	ODP
A1	1,810 (AR4) · 1,960 (AR6)	0.055
Lower toxicity, no flame propagation	IPCC assessment reports	Montreal Protocol
CRITICAL POINT	NORMAL BOILING POINT	
96.15 °C · 4,990.0 kPa abs	−40.81 °C	
CoolProp, from its equation of state	At 101.325 kPa	

SATURATION PRESSURE			SATURATION PRESSURE			SATURATION PRESSURE		
T (°C)	kPa g	bar g	T (°C)	kPa g	bar g	T (°C)	kPa g	bar g
−70	−80.9	−0.81	−14	206.0	2.06	42	1,508.4	15.08
−68	−78.1	−0.78	−12	229.1	2.29	44	1,587.4	15.87
−66	−75.0	−0.75	−10	253.5	2.53	46	1,669.1	16.69
−64	−71.6	−0.72	−8	279.2	2.79	48	1,753.8	17.54
−62	−67.9	−0.68	−6	306.4	3.06	50	1,841.4	18.41
−60	−63.8	−0.64	−4	335.0	3.35	52	1,932.0	19.32
−58	−59.3	−0.59	−2	365.0	3.65	54	2,025.7	20.26
−56	−54.4	−0.54	0	396.7	3.97	56	2,122.6	21.23
−54	−49.0	−0.49	2	429.9	4.30	58	2,222.7	22.23
−52	−43.2	−0.43	4	464.7	4.65	60	2,326.2	23.26
−50	−36.8	−0.37	6	501.3	5.01	62	2,433.0	24.33
−48	−29.9	−0.30	8	539.6	5.40	64	2,543.3	25.43
−46	−22.4	−0.22	10	579.6	5.80	66	2,657.2	26.57
−44	−14.3	−0.14	12	621.5	6.22	68	2,774.8	27.75
−42	−5.5	−0.06	14	665.4	6.65	70	2,896.1	28.96
−40	3.9	0.04	16	711.1	7.11	72	3,021.2	30.21
−38	14.1	0.14	18	758.9	7.59	74	3,150.3	31.50
−36	25.0	0.25	20	808.7	8.09	76	3,283.5	32.83
−34	36.6	0.37	22	860.6	8.61	78	3,420.8	34.21
−32	49.2	0.49	24	914.7	9.15	80	3,562.5	35.62
−30	62.6	0.63	26	971.0	9.71	82	3,708.6	37.09
−28	76.9	0.77	28	1,029.6	10.30	84	3,859.3	38.59
−26	92.1	0.92	30	1,090.6	10.91	86	4,014.8	40.15
−24	108.4	1.08	32	1,153.9	11.54	88	4,175.3	41.75
−22	125.6	1.26	34	1,219.6	12.20	90	4,341.0	43.41
−20	144.0	1.44	36	1,287.9	12.88	92	4,512.3	45.12
−18	163.5	1.63	38	1,358.8	13.59	94	4,689.7	46.90
−16	184.1	1.84	40	1,432.3	14.32			

NOTES	Gauge pressure is absolute pressure less a standard atmosphere, 101.325 kPa; below it, gauge pressure is negative.
SOURCES	Computed with CoolProp 7.2.1dev (HEOS backend, MIT licence), from published equations of state. Cite: Bell, I.H., Wronski, J., Quoilin, S., Lemort, V. (2014). Pure and pseudo-pure fluid thermophysical property evaluation and the open-source thermophysical property library CoolProp. Ind. Eng. Chem. Res. 53(6), 2498-2508. GWP, ODP and safety class: UNEP RTOC 2018, IPCC AR4 (2007), IPCC AR6 (2021), Montreal Protocol, GHG Protocol (2024).
ONLINE	kelvin.engineering/refrigerants/r-22 — this table in kPa absolute, and the P–h diagram kelvin.engineering/tools/superheat-subcooling?r=r-22 — superheat and subcooling calculator
VERIFY	These figures must be verified by a qualified professional before they're relied on.