

Refrigerant Reference Table

Refrigerant Number	Formula FW	SynQuest # CAS Number	m.p. °C b.p. °C	vp^{temp} d_4^{temp}	psia g/cm ³	ODP GWP t_{ATM}	γ	P_C T_C	psia °C
R-10	CCl ₄ 153.82	1100-4-01 [56-23-5]	m.p. -23 b.p. 76-77	vp d ²⁰	1.7 1.594	ODP 1.1 GWP 1400 t_{ATM} 26		P_C T_C	283.2
R-11	CCl ₃ F 137.37	1100-6-03 [75-69-4]	m.p. -111 b.p. 23.8	vp d ²⁰	13.4 1.494	ODP 1.0 GWP 4000 t_{ATM} 45		P_C T_C	639.3 198.0
R-11B1	CBrCl ₂ F 181.82	1100-E-FYI [353-58-2]	m.p. -106 b.p. 52	vp d ²⁰	1.9317	ODP GWP t_{ATM}		P_C T_C	
R-11B2	CBr ₂ ClF 226.28	1100-E-02 [353-55-9]	m.p. b.p. 79-80	vp d ²²	2.3173	ODP GWP t_{ATM}		P_C T_C	
R-11B3	CBr ₃ F 270.74	1100-A-03 [353-54-8]	m.p. -74.5 b.p. 106-7	vp d ²⁰	2.7648	ODP 3.1 GWP t_{ATM}		P_C T_C	
R-12	CCl ₂ F ₂ 120.91	1100-6-02 [75-71-8]	m.p. -158 b.p. -29.8	vp ²¹ d ⁻³⁰	84.7 1.2930	ODP 1.0 GWP 8500 t_{ATM} 85		P_C T_C	598.3 111
R-12B1	CBrClF ₂ 165.36	1100-E-01 [353-59-3]	m.p. -160.5 b.p. -2.5	vp d ¹⁵	1.850	ODP 3 GWP t_{ATM} 16		P_C T_C	595 153.8
R-12B2	CBr ₂ F ₂ 209.83	1100-A-02 [75-61-6]	m.p. -141 b.p. 24.5	vp ¹⁵ d ¹⁵	12.1 2.446	ODP GWP t_{ATM}		P_C T_C	
R-13	CClF ₃ 104.46	1100-6-01 [75-72-9]	m.p. -181 b.p. -81.4	vp ²¹ d ⁻³⁰	473 1.298	ODP 1.0 GWP 11700 t_{ATM} 640		P_C T_C	561.4 28.9
R-13B1	CBrF ₃ 148.91	1100-A-01 [75-63-8]	m.p. -168 b.p. -57.8	vp ²¹ d ²⁰	175.3 1.580	ODP 10.0 GWP 5600 t_{ATM} 65		P_C T_C	574.9 67.1
R-14	CF ₄ 88.01	1100-2-01 [75-73-0]	m.p. -183.6 b.p. -128	vp ⁻⁴⁶ d ⁻⁸⁰	542 1.33	ODP 0 GWP 5820 t_{ATM} 50000		P_C T_C	542.3 -45.6
R-20B1	CHBrCl ₂ 163.83	1100-D-01 [75-27-4]	m.p. -55 b.p. 89-90	v.p. d ²⁰	1.8636	ODP GWP t_{ATM}		P_C T_C	
R-21	CHCl ₂ F 102.92	1100-7-02 [73-43-4]	m.p. -135 b.p. 8.9	vp ²¹ d ³⁰	8.2 1.354	ODP 0.04 GWP 151 t_{ATM} 1.7		P_C T_C	749.5 178.5
R-21B2	CHBr ₂ F 191.83	1100-B-02 [1868-53-7]	m.p. b.p. 64.9	vp d ^{18.5}	2.4256	ODP 1.0 GWP t_{ATM}		P_C T_C	
R-22	CHClF ₂ 86.47	1100-7-03 [75-45-6]	m.p. -160 b.p. -40.8	vp ²¹ d ³⁰	137 1.177	ODP 0.05 GWP 1700 t_{ATM} 12		P_C T_C	724 205.2
R-22B1	CHBrF ₂ 130.92	1100-B-01 [1511-62-2]	m.p. -145 b.p. -14.5	vp d ^{21.1}	25.3 1.83	ODP 0.74 GWP t_{ATM}		P_C T_C	
R-23	CHF ₃ 70.02	1100-3-03 [75-46-7]	m.p. -160 b.p. -84.4	vp ²¹ d ⁻³⁴	649 1.246	ODP 0 GWP 12240 t_{ATM} 270		P_C T_C	706 26.3

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R-31	CH ₂ ClF 68.48	1100-7-01 [593-70-4]	m.p. -133 b.p. -9.1	vp d ²⁰	1.271	ODP GWP t_{ATM}	0.02	P_C T_C	
R-31B1	CH ₂ BrF 112.93	1100-B-00 [373-52-4]	m.p. b.p. 17-18	vp d ²⁰		ODP GWP t_{ATM}	0.73	P_C T_C	
R-32	CH ₂ F ₂ 52.03	1100-3-02 [75-10-5]	m.p. -136 b.p. -51.7	vp ²⁰ d ²⁰	170 1.100	ODP GWP t_{ATM}	0 543 4.9	P_C T_C	843 78.3
R-41	CH ₃ F 34.03	1100-3-01 [593-53-3]	m.p. -114.8 b.p. -78.5	vp ²¹ d ^{-78.5}	552 0.8817	ODP GWP t_{ATM}	0 90 2.4	P_C T_C	853 44.6
R-111	CCl ₃ CCl ₂ F 220.29	1100-6-16 [354-56-3]	m.p. 100-1 b.p. 137-8	vp d ²⁵	1.74	ODP GWP t_{ATM}	1.0	P_C T_C	
R-112	CCl ₂ FCCl ₂ F 203.83	1100-6-14 [76-12-0]	m.p. 23.8 b.p. 92.8	vp d ³⁰	1.634	ODP GWP t_{ATM}	1.0	P_C T_C	
R-112a	CCl ₃ CClF ₂ 203.83	1100-6-11 [76-11-9]	m.p. 40.6 b.p. 91.5	vp d ⁴⁵	1.6488	ODP GWP t_{ATM}	1.0	P_C T_C	
R-113	CCl ₂ FCClF ₂ 187.38	1100-6-08 [76-13-1]	m.p. -35 b.p. 47-48	vp. d ²⁵	1.553	ODP GWP t_{ATM}	0.8 5000 85	P_C T_C	495.3 214.4
R-113a	CCl ₃ CF ₃ 187.38	1100-6-10 [354-58-5]	m.p. 14 b.p. 45.7	vp d ²⁰	1.579	ODP GWP t_{ATM}	0.8 5000	P_C T_C	
R-113aB2	CF ₃ CClBr ₂ 276.28	1100-E-05 [754-17-6]	m.p. 42-45 b.p. 91-92	vp d		ODP GWP t_{ATM}		P_C T_C	
R-114	CClF ₂ CClF ₂ 170.92	1100-6-05 [76-14-2]	m.p. -94 b.p. 3.8	vp ²¹ d ³⁰	27.4 1.440	ODP GWP t_{ATM}	1.0 9300 300	P_C T_C	473.2 145.6
R-114a	CF ₃ CFCl ₂ 170.92	1100-6-07 [374-07-2]	m.p. -56.6 b.p. 3	vp d ²⁹	1.454	ODP GWP t_{ATM}		P_C T_C	145.5
R-114B1	CF ₂ ClCF ₂ Br 215.37	1100-E-06 [354-53-0]	m.p. -123.3 b.p. 24.9	vp d ²⁰	1.8328	ODP GWP t_{ATM}		P_C T_C	
R-114B2	CF ₂ BrCF ₂ Br 259.83	1100-A-06 [124-73-2]	m.p. -110.5 b.p. 47.3	vp d ²⁵	2.163	ODP GWP t_{ATM}	6.0 1620 20	P_C T_C	
R-115	CF ₃ CF ₂ Cl 154.47	1100-6-04 [76-15-3]	m.p. -106 b.p. -37.5	vp ²¹ d ^{-42.2}	101.3 1.5678	ODP GWP t_{ATM}	0.6 9300 1700	P_C T_C	457.9 79.94
R-115B1	CF ₃ CF ₂ Br 198.92	1100-A-04 [354-55-2]	m.p. b.p. -21	vp d ⁰	1.8098	ODP GWP t_{ATM}		P_C T_C	
R-116	CF ₃ CF ₃ 138.01	1100-2-02 [76-16-4]	m.p. -100.6 b.p. -78.1	vp ²¹ d ⁻⁷⁸	459 1.607	ODP GWP t_{ATM}	0 12010 10000	P_C T_C	432.1 19.7

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							t_{ATM}	γ		
R-121	CCl ₂ FCHCl ₂ 185.84	1100-7-14 [354-14-3]	m.p. b.p.	-82.6 116.6	vp d ²⁵	1.622	ODP GWP	0.01-0.04 0.6	P _C T _C	
R-121a	CHClFCCl ₃ 185.84	1100-7-FYI [354-11-0]	m.p. b.p.	-95.5 116.5	vp d ²⁰	1.625	ODP GWP	t_{ATM}	P _C T _C	
R-122	CClF ₂ CHCl ₂ 169.38	1100-7-12 [354-21-2]	m.p. b.p.	-141 72	vp d ²⁵	1.558 6	ODP GWP	0.02-0.08 1.4	P _C T _C	
R-122a	CHClFCCl ₂ F 169.38	1100-7-13 [354-15-4]	m.p. b.p.	-173 72.0	vp. d ²⁰	1.571	ODP GWP	0.5-1.8 t_{ATM}	P _C T _C	
R-122B3	CF ₂ BrCHBr ₂ 302.74	1100-B-04 [677-34-9]	m.p. b.p.	144	vp d ^{17.5}	2.607 7	ODP GWP	t_{ATM}	P _C T _C	
R-123	CF ₃ CHCl ₂ 152.93	1100-7-08 [306-83-2]	m.p. b.p.	-107 27.1	vp ²⁵ d ¹⁵	14.6 1.475	ODP GWP	0.02 93 t_{ATM} 1.3	P _C T _C	532 183.79
R-123a	CClF ₂ CHClF 152.93	1100-7-11 [35423-4]	m.p. b.p.	-78 28	vp d ⁰	1.50	ODP GWP	t_{ATM}	P _C T _C	
R-123B1	CF ₃ CHBrCl 197.39	1100-F-02 [151-67-7]	m.p. b.p.	50	vp d ²⁰	1.872	ODP GWP	t_{ATM}	P _C T _C	
R-123B2	CF ₃ CHBr ₂ 241.83	1100-B-03 [354-04-1]	m.p. b.p.	76	vp. d ^{27.4}	2.274	ODP GWP	0.4-1.6 t_{ATM}	P _C T _C	
R-124	CF ₃ CHClF 136.48	1100-7-06 [2837-89-0]	m.p. b.p.	-100 -12	vp ²⁵ d ²⁵	61 1.364	ODP GWP	0.022 480 t_{ATM} 5.8	P _C T _C	518.3 122.2
R-124a	CHF ₂ CFCl ₂ 136.48	1100-7-20 [354-25-6]	m.p. b.p.	-117 -10.2	vp ^{-10.2} d ²⁰	14.7 1.379	ODP GWP	0.02 t_{ATM}	P _C T _C	
R-125	CF ₃ CHF ₂ 120.02	1100-3-11 [354-33-6]	m.p. b.p.	-103 -48.5	vp ²⁵ d ²	160 1.248	ODP GWP	0 3450 t_{ATM} 29	P _C T _C	526 66.3
R-131	CHClFCHCl ₂ 151.39	1100-7-17 [359-28-4]	m.p. b.p.	102.5	vp d ¹⁷	1.549 7	ODP GWP	0.007-0.05 4.0 t_{ATM}	P _C T _C	
R-131a	CH ₂ ClCCl ₂ F 151.39	1100-7-18 [811-95-0]	m.p. b.p.	-105 88	vp d	1.492 1	ODP GWP	t_{ATM}	P _C T _C	
R-132	CHClFCHClF 134.94	1100-7-41 [431-06-1]	m.p. b.p.	-155 58-59	vp d ²⁵	1.465 5	ODP GWP	t_{ATM}	P _C T _C	
R-132a	CHCl ₂ CHF ₂ 134.94	1100-7-40 [471-43-2]	m.p. b.p.	60	vp d ¹⁷	1.494 5	ODP GWP	t_{ATM}	P _C T _C	
R-132b	CH ₂ ClCClF ₂ 134.94	1100-7-16 [1649-08-7]	m.p. b.p.	-101 46	vp d ²⁰	1.416 3	ODP GWP	0.008-0.05 4.2 t_{ATM}	P _C T _C	

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R-132c	CCl ₂ FCH ₂ F 134.94	1100-7-15 [1842-05-3]	m.p. b.p. 45	vp d		ODP GWP t_{ATM}		P_C T_C	
R-133	CHClFCH ₂ F ₂ 118.49	1100-7-FYI [431-07-2]	m.p. b.p. 17.2	vp. d ¹⁰	1.365	ODP GWP t_{ATM}		P_C T_C	
R-133a	CF ₃ CH ₂ Cl 118.49	1100-7-10 [75-88-7]	m.p. -105.5 b.p. 6.9	vp ²¹ d ⁰	25 1.389	ODP GWP t_{ATM}	0.02-0.06 4.8	P_C T_C	
R-133b	CClF ₂ CH ₂ F 118.49	1100-7-?? [421-04-5]	m.p. b.p. 12	vp d		ODP GWP t_{ATM}		P_C T_C	
R-134	CHF ₂ CHF ₂ 102.04	1100-3-10 [359-35-3]	m.p. -89 b.p. -19.7	vp d	1.2	ODP GWP t_{ATM}	0 1090 9.69	P_C T_C	245.7 118.7
R-134a	CF ₃ CH ₂ F 102.04	1100-3-09 [811-97-2]	m.p. -101 b.p. -26.5	vp ²¹ d ²¹	96.3 1.21	ODP GWP t_{ATM}	0 1320 14	P_C T_C	590.3 101.03
R-141	CHCl ₂ CHClF 116.95	1100-7-FYI [430-57-9]	m.p. -60 b.p. 73-74	vp. d ²⁰	1.381 4	ODP GWP t_{ATM}		P_C T_C	
R-141a	CHCl ₂ CH ₂ F 116.95	1100-7-28 [430-53-5]	m.p. -60 b.p. 76	vp d	1.381 4	ODP GWP t_{ATM}		P_C T_C	
R-141b	CCl ₂ FCH ₃ 116.95	1100-7-21 [1717-00-6]	m.p. -103.5 b.p. 32	vp ²⁵ d ¹⁰	9.3 1.250 0	ODP GWP t_{ATM}	0.11 630 9.3	P_C T_C	616 204.4
R-142	CHF ₂ CH ₂ Cl 100.50	1100-7-09 [338-65-8]	m.p. b.p. 35.1	vp d ¹⁵	1.312	ODP GWP t_{ATM}		P_C T_C	
R-142a	CHClFCH ₂ F 100.50	1100-7-FYI [338-64-7]	m.p. b.p. 20-25	vp d		ODP GWP t_{ATM}		P_C T_C	
R-142b	CClF ₂ CH ₃ 100.50	1100-7-19 [75-68-3]	m.p. -130.8 b.p. -9.2	vp ²¹ d ²⁵	44.7 1.108	ODP GWP t_{ATM}	0.055 2000 19.1	P_C T_C	598.0 137.14
R-143	CHF ₂ CH ₂ F 84.04	1100-3-08 [430-66-0]	m.p. -84 b.p. 5	vp d		ODP GWP t_{ATM}	0 347 3.5	P_C T_C	71.2
R-143a	CF ₃ CH ₃ 84.04	1100-3-07 [420-46-2]	m.p. -111 b.p. -47.6	vp ²¹ d ³⁰	264 0.942	ODP GWP t_{ATM}	0 4400 52	P_C T_C	555 73.1
R-151	CH ₂ FCH ₂ Cl 82.51	1100-7-05 [762-50-5]	m.p. b.p. 53.2	vp d ²⁵	1.167 5	ODP GWP t_{ATM}		P_C T_C	
R-151a	CH ₃ CHClF 66.05	1100-7-04 [1615-75-4]	m.p. b.p. 16.1	vp d ¹⁶	1.2	ODP GWP t_{ATM}		P_C T_C	
R-152	CH ₂ FCH ₂ F 66.05	1100-3-06 [624-72-6]	m.p. b.p. 53.2	vp d ²⁵	1.167 5	ODP GWP t_{ATM}	0	P_C T_C	

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							GWP	t_{ATM}		
R-152a	CH ₃ CHF ₂ 66.05	1100-3-05 [75-37-6]	m.p. b.p.	-117 -24.7	vp^{21} d^{19}	77.7 0.966	ODP GWP	0 122	P _C T _C	656 113.3
R-161	CH ₃ CH ₂ F 48.06	1100-3-04 [353-36-6]	m.p. b.p.	-143.2 -37.1	vp. d^{-37}	0.8176	ODP GWP	0 low	P _C T _C	682 102.2
R-214cb	CCl ₃ CF ₂ CF ₂ Cl 253.83	1100-6-24 [2268-46-4]	m.p. b.p.	-92.8 114.0	vp d^{25}	1.6927	ODP GWP	1.0	P _C T _C	298.8
R-216ba	CF ₃ CClFCF ₂ Cl 220.93	1100-6-18 [661-97-2]	m.p. b.p.	-136 35.0	vp d^{20}	1.5896	ODP GWP	1.0	P _C T _C	
R-216baB2	CF ₃ CFBrCF ₂ Br 309.84	1100-A-08 [661-95-0]	m.p. b.p.	-95 72.8	vp d^{20}	2.169	ODP GWP		P _C T _C	
R-217ba	CF ₃ CFCICF ₃ 204.47	1100-6-17 [76-18-6]	m.p. b.p.	-2	vp d^{-2}	14.7	ODP GWP	1.0	P _C T _C	
R-217caB1	CF ₃ CF ₂ CF ₂ Br 248.93	1100-A-18 [422-85-5]	m.p. b.p.	12	vp. d^0	1.8746	ODP GWP		P _C T _C	
R-218	CF ₃ CF ₂ CF ₃ 188.03	1100-2-04 [76-19-7]	m.p. b.p.	-183.0 -36.7	vp^{21} d^{20}	114.8 1.352	ODP GWP	0 8690	P _C T _C	389 71.9
R-225ba	CF ₃ CClFCHClF 202.94	1100-7-FYI [422-48-0]	m.p. b.p.	-132.6 51.9	vp d^{25}	1.561	ODP GWP		P _C T _C	437.4 212.9
R-225ca	CF ₃ CF ₂ CHCl ₂ 202.94	1100-7-24 [422-56-0]	m.p. b.p.	-94 51.1	vp d^{20}	1.55	ODP GWP	0.02 170	P _C T _C	
R-225cb	CF ₂ ClCF ₂ CHClF 202.94	1100-7-25 [507-55-1]	m.p. b.p.	-97 56.1	vp d^{20}	1.56	ODP GWP	0.033 530	P _C T _C	
R-225cc	CHF ₂ CF ₂ CFCl ₂ 202.94	1100-7-FYI [13474-88-9]	m.p. b.p.	61	vp d		ODP GWP	0.2	P _C T _C	
R-225da	CF ₃ CHClCClF ₂ 202.94	1100-7-22 [431-86-7]	m.p. b.p.	-130.3 50.4	vp d^{25}	1.541	ODP GWP		P _C T _C	427.8 206.2
R-226da	CF ₃ CHClCF ₃ 186.48	1100-7-42 [431-87-8]	m.p. b.p.	-119.6 14.1	vp d^4	1.5414	ODP GWP	0.02-0.1	P _C T _C	430.3 158.5
R-226ea	CF ₃ CHFCF ₂ Cl 186.48	1100-7-FYI [359-58-0]	m.p. b.p.	-134.0 17.6	vp d^{25}	1.440	ODP GWP	0.02-0.1	P _C T _C	419.4 158.3
R-226eaB1	CF ₃ CHFCF ₂ Br 230.94	1100-B-11 [2252-78-0]	m.p. b.p.	35.5	vp d^{25}	1.8016	ODP GWP		P _C T _C	
R-227ca	CF ₃ CF ₂ CF ₂ H 170.03	1100-3-30 [2252-84-8]	m.p. b.p.	-140.3 -16.3	vp d^{25}	1.390	ODP GWP	0	P _C T _C	409.0 106.3

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R-227ea	CF ₃ CHF ₂ CF ₃ 170.03	1100-3-31 [431-89-0]	m.p.b .p.	-127.1 -15.2	vp d ²⁵	1.40 9	ODP GWP	0 3660 30	P_C T_C	428 103.5
R-234da	CF ₃ CHClCHClF 184.95	1100-7-FYI [146916-90-7]	m.p.b .p.	-98.0 70.1	vp. d		ODP GWP	0.01-0.28 t_{ATM}	P_C T_C	474.6 242.5
R-235ca	CF ₃ CF ₂ CH ₂ Cl 168.49	1100-7-FYI [422-02-6]	m.p.b .p.	-85 28.1	$vp^{2.5}$ d ⁴⁶	14.2 1.32 1	ODP GWP	0.03-0.52 t_{ATM}	P_C T_C	433.2 170.3
R-235fa	CF ₃ CH ₂ CF ₂ Cl 168.49	1100-7-?? [460-92-4]	m.p.b .p.	-107 28.4	vp d ²⁰	1.43 7	ODP GWP	0.03-0.52 t_{ATM}	P_C T_C	
R-236ca	CHF ₂ CF ₂ CHF ₂ 152.05	1100-3-45 [27070-61-7]	m.p.b .p.	5.1	vp d		ODP GWP	0 t_{ATM}	P_C T_C	495 155.2
R-236cb	CF ₃ CF ₂ CH ₂ F 152.05	1100-3-26 [677-56-5]	m.p.b .p.	-105.4 1.44	vp d ³⁵	1.32 0	ODP GWP	0 t_{ATM} 3.2	P_C T_C	443.7 130.1
R-236ea	CF ₃ CHFCHF ₂ 152.05	1100-3-27 [431-63-0]	m.p.b .p.	-141.6 6.5	vp^{21} d ²⁵	30.4 1.39 0	ODP GWP	0 1350 t_{ATM} 10.7	P_C T_C	502.7 141.1
R-236fa	CF ₃ CH ₂ CF ₃ 152.05	1100-3-28 [690-39-1]	m.p.b .p.	-94.2 -1.1	vp. d ²⁵	1.37 1	ODP GWP	0 9650 t_{ATM} 240	P_C T_C	452.1 130.6
R-243db	CF ₃ CHClCH ₂ Cl 166.96	1100-7-27 [338-75-0]	m.p.b .p.	-71.6 76-77	vp d ²⁵	1.42 5	ODP GWP	0.007-0.12 t_{ATM}	P_C T_C	497.5 251.9
R-244ca	CHF ₂ CF ₂ CH ₂ Cl 150.50	1100-7-FYI [679-85-6]	m.p.b .p.	-101.8 53-54	vp d ²⁰	1.43	ODP GWP	0.009-0.14 t_{ATM}	P_C T_C	221
R-245ca	CHF ₂ CF ₂ CH ₂ F 134.06	1100-3-23 [679-86-7]	m.p.b .p.	-82 25-26	vp d ²⁵	1.33 6	ODP GWP	0 682 t_{ATM} 6.2	P_C T_C	548.6 178.4
R-245cb	CF ₃ CF ₂ CH ₃ 134.06	1100-3-22 [1814-88-6]	m.p.b .p.	-81.1 -18.3	vp d ²⁵	1.17 6	ODP GWP	0 610 t_{ATM} 1.8	P_C T_C	443.0 108.5
R-245fa	CF ₃ CH ₂ CHF ₂ 134.06	1100-3-25 [460-73-1]	m.p.b .p.	-102.1 15.3	vp d ²⁵	1.32 0	ODP GWP	0 1020 t_{ATM} 7.6	P_C T_C	518.5 157.5
R-263fb	CF ₃ CH ₂ CH ₃ 98.07	1100-3-18 [421-07-8]	m.p.b .p.	-148 -12.5	vp d		ODP GWP	0 t_{ATM}	P_C T_C	
R-272ca	CH ₃ CF ₂ CH ₃ 80.08	1100-3-17 [420-45-1]	m.p.b .p.	-1 -1	vp d ⁰	0.92	ODP GWP	0 t_{ATM}	P_C T_C	
R-281ea	CH ₃ CHFCH ₃ 62.09	1100-3-13 [420-26-8]	m.p.b .p.	-133.4 -9.4	vp d ^{9.4}	0.96 9	ODP GWP	0 t_{ATM}	P_C T_C	
R-281fa	CH ₃ CH ₂ CH ₂ F 62.09	1100-3-12 [460-13-9]	m.p.b .p.	-159 -2.5	vp d ^{2.5}	0.78 2	ODP GWP	0 t_{ATM}	P_C T_C	502.7 141.1