DuPont™
refrigerants

Thermodynamic Properties of DuPont™ Freon® 22 Refrigerant

(Chlorodifluoromethane)

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PHYSICAL PROPERTIES

Chemical Formula:	$CHClF_2$
Molecular Weight:	86.476
Boiling Point at one atmosphere, °F	−41.36
Freezing Point, °F	−256
Critical Temperature, °F	204.81
Critical Pressure, psia	721.906
Critical Density, lb/cu ft	32.76
Critical Volume, cu ft/lb	0.030525
Refractive Index (n_D), 70°F	
Liquid	1.259
Vapor (one atmosphere)	1.00073
Dielectric Constant:	
Liquid at 75°F	6.11
Vapor (0.5 atmosphere) at 78°F	1.0035
Relative Dielectric Strength (N_2 = 1) at 1 atmosphere with 0.1-inch gap and 0.75-inch-sphere-to-plane gap at 77°F.	1.3

Thermal Conductivity, k, in Btu/(hr)(ft)(°F)

t °F	k
Liquid	
−40	0.0792
0	0.0698
40	0.0605
120	0.0417
Vapor (one atmosphere)	
−40	0.0050
0	0.0056
40	0.0061
120	0.0072

Viscosity, η, in Centipoises:

t °F	η
Liquid	
−40	0.349
0	0.298
40	0.261
120	0.211
Vapor (one atmosphere)	
−40	0.0100
0	0.0111
40	0.0121
120	0.0140

Surface Tension, γ, in dynes/cm:

t °F	γ
−40	18.5
0	14.9
40	11.4
120	4.9

Solubility of Water in the Liquid:

t °F	ppm
−100	19
−40	120
40	690
100	1800

UNITS AND FACTORS

t = temperature in °F
T = temperature in °R = °F + 459.69
psia = pressure in lb/sq in absolute
psig = pressure in lb/sq in gage
p = pressure of vapor in psia
p_{sat} = pressure of saturated vapor in psia
v_f = volume of the saturated liquid in cu ft/lb
v_g = volume of the saturated vapor in cu ft/lb
V = volume of the superheated vapor in cu ft/lb
$d_f = 1/v_f$ = density of the saturated liquid in lb/cu ft
$d_g = 1/v_g$ = density of the saturated vapor in lb/cu ft
h_f = enthalpy of the saturated liquid in Btu/lb
h_{fg} = enthalpy of vaporization in Btu/lb
h_g = enthalpy of the saturated vapor in Btu/lb
H = enthalpy of the superheated vapor in Btu/lb
s_f = entropy of the saturated liquid in Btu/(lb.)(°R)
s_g = entropy of the saturated vapor in Btu/(lb)(°R)
S = entropy of the superheated vapor in Btu/(lb)(°R)
c_f = heat capacity of the saturated liquid in Btu/(lb)(°F)
c_v^o = heat capacity of the vapor at constant volume in Btu/(lb)(°F) at zero pressure
c_p = heat capacity of the vapor at constant pressure in Btu/(lb)(°F)
c_v = heat capacity of the vapor at constant volume in Btu/(lb)(°F)
k = thermal conductivity in Btu/(hr) (ft) (°F)
η = viscosity in centipoises
γ = surface tension in dynes/cm
n_D = refractive index
e = base of natural logarithms = 2.718281828

The gas constant, R = 10.7315 (psia) (cu ft)/(°R) (lb mol)
Heat units (Btu/lb) = work units (psia) (cu ft/lb) ×0.185053
One atmosphere = 14.696 psia = 29.9212 inches of mercury

EQUATIONS

The four basic equations used to calculate the tables of thermodynamic properties are given below. They were developed by Prof. J. J. Martin at the University of Michigan. Programming and computations were also carried out at the University under his supervision.

1. Vapor Pressure

$$\log_{10}P_{sat} = A - \frac{B}{T} - C\log_{10}T + DT + \frac{E\ (F-T)}{FT}\log_{10}(F-T)$$

$A =$ 29.35754453	$D =$ 0.002190939044
$B =$ 3845.193152	$E =$ 305.8268131
$C =$ 7.86103122	$F =$ 686.1

Range of Data: 0.08 psia to 692 psia.
Average Deviation: 0.11%.

Based on data from Prof. A. Michels at the University of Amsterdam and checked with data from the University of Michigan and the Du Pont Company.

2. Equation of State

$$p = \frac{RT}{V\text{-}b} + \frac{A_2 + B_2T + C_2e^{kT/Tc}}{(V\text{-}b)^2} + \frac{A_3 + B_3T + C_3e^{kT/Tc}}{(V\text{-}b)^3}$$

$$+ \frac{A_4 + B_4T}{(V\text{-}b)^4} + \frac{A_5 + B_5T + C_5e^{kT/Tc}}{(V\text{-}b)^5} + \frac{A_6 + B_6T}{e^{548.2V}}$$

$R =$ 0.124098	$A_4 =$ 0.002310142
$b =$ 0.002	$B_4 = -3.605723 \times 10^{-6}$
$A_2 = -$ 4.353547	$A_5 = -3.724044 \times 10^{-5}$
$B_2 =$ 0.002407252	$B_5 =$ 5.355465×10^{-8}
$C_2 = -44.066868$	$C_5 = -1.845051 \times 10^{-4}$
$A_3 = -$ 0.017464	$A_6 =$ 1.363387×10^{8}
$B_3 =$ 7.62789×10^{-5}	$B_6 = -1.672612 \times 10^{5}$
$C_3 =$ 1.483763	
	$k = -4.2$

Range of Data: Vapor densities from 1.6 to 42 lb/cu ft·
Average Deviation: 0.07%

Based on data from Prof. A. Michels at the University of Amsterdam and checked with data from the University of Michigan and the Du Pont Company.

3. Density of the Saturated Liquid

$$d_f = A + B\left(1 - \frac{T}{Tc}\right)^{1/3} + C\left(1 - \frac{T}{Tc}\right)^{2/3}$$

$$+ D\left(1 - \frac{T}{Tc}\right) + E\left(1 - \frac{T}{Tc}\right)^{4/3}$$

$A = 32.76$	$D = -22.2925657$
$B = 54.6344093$	$E =$ 20.47328862
$C = 36.74892$	

Range of Data: 100 lb/cu ft to 51 lb/ cu ft
Average Deviation: 0.08%

4. Heat Capacity of the Vapor

$$c_v^\circ = a + \frac{b}{T^2} + cT + dT^2$$

$a =$	2.812836×10^{-2}
$b =$	257.341
$c =$	2.255408×10^{-4}
$d =$	-6.509607×10^{-8}

Range of Data: −280°F to 530°F (calculated from spectroscopic data)

Average Deviation: 0.07%

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
−155	0.20882	29.49604*	0.010135	180.81	98.669	0.0055308	−27.095	114.040	86.945	−0.07512	0.29917	−155
−154	0.22027	29.47273*	0.010144	171.96	98.582	0.0058153	−26.870	113.931	87.060	−0.07438	0.29832	−154
−153	0.23225	29.44833*	0.010153	163.61	98.496	0.0061121	−26.646	113.822	87.175	−0.07365	0.29748	−153
−152	0.24479	29.42280*	0.010162	155.72	98.409	0.0064216	−26.422	113.713	87.291	−0.07292	0.29665	−152
−151	0.25791	29.39609*	0.010171	148.27	98.323	0.0067443	−26.198	113.604	87.406	−0.07219	0.29583	−151
−150	0.27163	29.36816*	0.010180	141.23	98.236	0.0070805	−25.974	113.495	87.521	−0.07147	0.29501	−150
−149	0.28597	29.33897*	0.010189	134.57	98.149	0.0074308	−25.749	113.386	87.637	−0.07074	0.29421	−149
−148	0.30095	29.30847*	0.010198	128.28	98.062	0.0077956	−25.525	113.277	87.753	−0.07002	0.29341	−148
−147	0.31660	29.27661*	0.010207	122.32	97.975	0.0081754	−25.300	113.168	87.868	−0.06930	0.29262	−147
−146	0.33294	29.24334*	0.010216	116.68	97.888	0.0085707	−25.075	113.059	87.984	−0.06859	0.29183	−146
−145	0.34999	29.20861*	0.010225	111.34	97.800	0.0089819	−24.851	112.951	88.100	−0.06787	0.29106	−145
−144	0.36779	29.17238*	0.010234	106.27	97.713	0.0094096	−24.626	112.842	88.216	−0.06716	0.29029	−144
−143	0.38636	29.13458*	0.010243	101.48	97.625	0.0098542	−24.401	112.733	88.332	−0.06645	0.28953	−143
−142	0.40571	29.09516*	0.010252	96.933	97.538	0.010316	−24.175	112.624	88.448	−0.06574	0.28877	−142
−141	0.42589	29.05407*	0.010262	92.622	97.450	0.010797	−23.950	112.515	88.564	−0.06503	0.28803	−141
−140	0.44692	29.01126*	0.010271	88.532	97.363	0.011295	−23.725	112.405	88.681	−0.06432	0.28729	−140
−139	0.46883	28.96665*	0.010280	84.650	97.275	0.011813	−23.499	112.296	88.797	−0.06362	0.28655	−139
−138	0.49165	28.92020*	0.010289	80.965	97.187	0.012351	−23.274	112.187	88.914	−0.06291	0.28583	−138
−137	0.51540	28.87184*	0.010299	77.466	97.099	0.012909	−23.048	112.078	89.030	−0.06221	0.28511	−137
−136	0.54012	28.82151*	0.010308	74.141	97.011	0.013488	−22.822	111.969	89.147	−0.06152	0.28440	−136
−135	0.56584	28.76914*	0.010318	70.981	96.922	0.014088	−22.596	111.859	89.263	−0.06082	0.28369	−135
−134	0.59260	28.71467*	0.010327	67.978	96.834	0.014711	−22.369	111.750	89.380	−0.06012	0.28299	−134
−133	0.62041	28.65803*	0.010336	65.121	96.746	0.015356	−22.143	111.640	89.497	−0.05943	0.28230	−133
−132	0.64933	28.59915*	0.010346	62.404	96.657	0.016025	−21.917	111.530	89.614	−0.05874	0.28162	−132
−131	0.67938	28.53797*	0.010355	59.818	96.569	0.016717	−21.690	111.421	89.731	−0.05805	0.28094	−131
−130	0.71060	28.47441*	0.010365	57.356	96.480	0.017435	−21.463	111.311	89.848	−0.05736	0.28027	−130
−129	0.74302	28.40840*	0.010374	55.013	96.391	0.018178	−21.236	111.201	89.965	−0.05667	0.27960	−129
−128	0.77669	28.33985*	0.010384	52.780	96.302	0.018947	−21.009	111.091	90.082	−0.05598	0.27894	−128
−127	0.81163	28.26871*	0.010394	50.653	96.213	0.019742	−20.781	110.980	90.199	−0.05530	0.27829	−127
−126	0.84789	28.19488*	0.010403	48.625	96.124	0.020565	−20.554	110.870	90.316	−0.05462	0.27764	−126
−125	0.88551	28.11829*	0.010413	46.692	96.035	0.021417	−20.326	110.760	90.433	−0.05394	0.27700	−125
−124	0.92452	28.03886*	0.010423	44.849	95.945	0.022297	−20.098	110.649	90.551	−0.05326	0.27636	−124
−123	0.96497	27.95650*	0.010432	43.090	95.856	0.023207	−19.870	110.538	90.688	−0.05258	0.27573	−123
−122	1.0069	27.8711*	0.010442	41.411	95.767	0.024148	−19.642	110.427	90.785	−0.05190	0.27511	−122
−121	1.0504	27.7827*	0.010452	39.809	95.677	0.025120	−19.413	110.316	90.903	−0.05123	0.27449	−121
−120	1.0954	27.6910*	0.010462	38.280	95.587	0.026124	−19.185	110.205	91.020	−0.05055	0.27388	−120
−119	1.1420	27.5961*	0.010471	36.818	95.497	0.027160	−18.956	110.093	91.138	−0.04988	0.27327	−119
−118	1.1903	27.4978*	0.010481	35.423	95.407	0.028231	−18.727	109.982	91.255	−0.04921	0.27267	−118
−117	1.2402	27.3961*	0.010491	34.088	95.317	0.029335	−18.497	109.870	91.373	−0.04854	0.27207	−117
−116	1.2920	27.2907*	0.010501	32.813	95.227	0.030476	−18.268	109.758	91.490	−0.04787	0.27148	−116
−115	1.3455	27.1818*	0.010511	31.594	95.137	0.031652	−18.038	109.646	91.608	−0.04720	0.27090	−115
−114	1.4008	27.0691*	0.010521	30.427	95.047	0.032865	−17.808	109.533	91.725	−0.04654	0.27032	−114
−113	1.4581	26.9525*	0.010531	29.311	94.956	0.034116	−17.578	109.421	91.843	−0.04587	0.26974	−113
−112	1.5173	26.8320*	0.010541	28.244	94.866	0.035406	−17.348	109.308	91.960	−0.04521	0.26918	−112
−111	1.5784	26.7075*	0.010551	27.221	94.775	0.036736	−17.117	109.195	92.078	−0.04455	0.26861	−111
−110	1.6417	26.5788*	0.010561	26.242	94.684	0.038106	−16.886	109.082	92.196	−0.04389	0.26805	−110
−109	1.7070	26.4458*	0.010572	25.305	94.593	0.039518	−16.655	108.968	92.313	−0.04323	0.26750	−109
−108	1.7744	26.3084*	0.010582	24.407	94.502	0.040972	−16.424	108.854	92.431	−0.04257	0.26695	−108
−107	1.8441	26.1666*	0.010592	23.546	94.411	0.042470	−16.192	108.740	92.548	−0.04191	0.26641	−107
−106	1.9161	26.0201*	0.010602	22.721	94.320	0.044012	−15.960	108.626	92.666	−0.04125	0.26587	−106
−105	1.9903	25.8689*	0.010613	21.930	94.228	0.045599	−15.728	108.512	92.783	−0.04060	0.26533	−105
−104	2.0669	25.7129*	0.010623	21.172	94.137	0.047233	−15.496	108.397	92.901	−0.03995	0.26481	−104
−103	2.1460	25.5520*	0.010633	20.444	94.045	0.048914	−15.263	108.282	93.018	−0.03929	0.26428	−103
−102	2.2275	25.3860*	0.010644	19.746	93.953	0.050644	−15.031	108.167	93.136	−0.03864	0.26376	−102
−101	2.3116	25.2148*	0.010654	19.076	93.862	0.052423	−14.798	108.051	93.253	−0.03799	0.26325	−101

*Inches of mercury below one atmosphere

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TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
−100	2.3983	25.0383*	0.010664	18.433	93.770	0.054252	−14.564	107.935	93.371	−0.03734	0.26274	−100
− 99	2.4877	24.8563*	0.010675	17.815	93.678	0.056133	−14.331	107.819	93.488	−0.03670	0.26223	− 99
− 98	2.5798	24.6688*	0.010685	17.222	93.585	0.058066	−14.097	107.702	93.606	−0.03605	0.26173	− 98
− 97	2.6747	24.4755*	0.010696	16.652	93.493	0.060053	−13.863	107.586	93.723	−0.03540	0.26123	− 97
− 96	2.7724	24.2765*	0.010707	16.104	93.401	0.062095	−13.628	107.469	93.840	−0.03476	0.26074	− 96
− 95	2.8731	24.0715*	0.010717	15.578	93.308	0.064192	−13.393	107.351	93.958	−0.03411	0.26025	− 95
− 94	2.9768	23.8604*	0.010728	15.072	93.215	0.066347	−13.158	107.233	94.075	−0.03347	0.25977	− 94
− 93	3.0836	23.6430*	0.010739	14.586	93.123	0.068559	−12.923	107.115	94.192	−0.03283	0.25929	− 93
− 92	3.1934	23.4193*	0.010749	14.118	93.030	0.070831	−12.688	106.997	94.309	−0.03219	0.25881	− 92
− 91	3.3065	23.1891*	0.010760	13.668	92.937	0.073163	−12.452	106.878	94.426	−0.03155	0.25834	− 91
− 90	3.4229	22.9522*	0.010771	13.235	92.843	0.075557	−12.216	106.759	94.544	−0.03091	0.25787	− 90
− 89	3.5426	22.7085*	0.010782	12.818	92.750	0.078014	−11.979	106.640	94.661	−0.03027	0.25741	− 89
− 88	3.6657	22.4579*	0.010793	12.417	92.657	0.080534	−11.743	106.520	94.777	−0.02963	0.25695	− 88
− 87	3.7922	22.2002*	0.010803	12.031	92.563	0.083120	−11.506	106.400	94.894	−0.02900	0.25649	− 87
− 86	3.9224	21.9352*	0.010814	11.659	92.469	0.085772	−11.268	106.279	95.011	−0.02836	0.25604	− 86
− 85	4.0562	21.6628*	0.010825	11.301	92.376	0.088491	−11.031	106.159	95.128	−0.02773	0.25560	− 85
− 84	4.1936	21.3829*	0.010836	10.955	92.282	0.091280	−10.793	106.037	95.244	−0.02709	0.25515	− 84
− 83	4.3349	21.0953*	0.010847	10.623	92.188	0.094138	−10.555	105.916	95.361	−0.02646	0.25471	− 83
− 82	4.4800	20.7998*	0.010859	10.302	92.093	0.097068	−10.316	105.794	95.478	−0.02583	0.25428	− 82
− 81	4.6291	20.4963*	0.010870	9.9929	91.999	0.10007	−10.077	105.671	95.594	−0.02520	0.25384	− 81
− 80	4.7822	20.1846*	0.010881	9.6949	91.905	0.10315	− 9.838	105.548	95.710	−0.02457	0.25342	− 80
− 79	4.9394	19.8646*	0.010892	9.4074	91.810	0.10630	− 9.599	105.425	95.827	−0.02394	0.25299	− 79
− 78	5.1007	19.5361*	0.010903	9.1301	91.715	0.10953	− 9.359	105.302	95.943	−0.02331	0.25257	− 78
− 77	5.2664	19.1989*	0.010915	8.8625	91.620	0.11283	− 9.119	105.178	96.059	−0.02269	0.25215	− 77
− 76	5.4363	18.8528*	0.010926	8.6043	91.525	0.11622	− 8.878	105.053	96.175	−0.02206	0.25174	− 76
− 75	5.6107	18.4977*	0.010937	8.3551	91.430	0.11969	− 8.638	104.928	96.290	−0.02143	0.25133	− 75
− 74	5.7896	18.1334*	0.010949	8.1145	91.335	0.12324	− 8.397	104.803	96.406	−0.02081	0.25092	− 74
− 73	5.9732	17.7598*	0.010960	7.8822	91.240	0.12687	− 8.155	104.677	96.522	−0.02019	0.25052	− 73
− 72	6.1614	17.3766*	0.010972	7.6579	91.144	0.13058	− 7.914	104.551	96.637	−0.01956	0.25012	− 72
− 71	6.3543	16.9837*	0.010983	7.4412	91.048	0.13439	− 7.672	104.424	96.753	−0.01894	0.24972	− 71
− 70	6.5522	16.5809*	0.010995	7.2318	90.952	0.13828	− 7.429	104.297	96.868	−0.01832	0.24932	− 70
− 69	6.7550	16.1680*	0.011006	7.0295	90.856	0.14226	− 7.187	104.170	96.983	−0.01770	0.24893	− 69
− 68	6.9628	15.7449*	0.011018	6.8339	90.760	0.14633	− 6.944	104.042	97.098	−0.01708	0.24855	− 68
− 67	7.1757	15.3113*	0.011030	6.6449	90.664	0.15049	− 6.700	103.913	97.213	−0.01646	0.24816	− 67
− 66	7.3939	14.8671*	0.011041	6.4621	90.568	0.15475	− 6.457	103.785	97.328	−0.01584	0.24778	− 66
− 65	7.6174	14.4120*	0.011053	6.2854	90.471	0.15910	− 6.213	103.655	97.443	−0.01522	0.24740	− 65
− 64	7.8463	13.9460*	0.011065	6.1144	90.374	0.16355	− 5.968	103.525	97.557	−0.01460	0.24703	− 64
− 63	8.0808	13.4687*	0.011077	5.9491	90.277	0.16809	− 5.724	103.395	97.672	−0.01399	0.24666	− 63
− 62	8.3208	12.9800*	0.011089	5.7891	90.180	0.17274	− 5.479	103.264	97.786	−0.01337	0.24629	− 62
− 61	8.5665	12.4798*	0.011101	5.6343	90.083	0.17749	− 5.233	103.133	97.900	−0.01276	0.24592	− 61
− 60	8.8180	11.9677*	0.011113	5.4844	89.986	0.18233	− 4.987	103.001	98.014	−0.01214	0.24556	− 60
− 59	9.0754	11.4436*	0.011125	5.3394	89.888	0.18729	− 4.741	102.869	98.128	−0.01153	0.24520	− 59
− 58	9.3388	10.9074*	0.011137	5.1989	89.791	0.19235	− 4.495	102.736	98.241	−0.01092	0.24484	− 58
− 57	9.6082	10.3587*	0.011149	5.0629	89.693	0.19752	− 4.248	102.603	98.355	−0.01030	0.24449	− 57
− 56	9.8839	9.7975*	0.011161	4.9312	89.595	0.20279	− 4.001	102.469	98.468	−0.00969	0.24414	− 56
− 55	10.166	9.223*	0.011174	4.8036	89.497	0.20818	− 3.754	102.335	98.581	−0.00908	0.24379	− 55
− 54	10.454	8.636*	0.011186	4.6799	89.399	0.21368	− 3.506	102.200	98.694	−0.00847	0.24345	− 54
− 53	10.749	8.036*	0.011198	4.5601	89.300	0.21929	− 3.258	102.065	98.807	−0.00786	0.24310	− 53
− 52	11.051	7.422*	0.011211	4.4440	89.202	0.22502	− 3.009	101.929	98.920	−0.00725	0.24276	− 52
− 51	11.359	6.795*	0.011223	4.3315	89.103	0.23087	− 2.761	101.793	99.032	−0.00665	0.24243	− 51
− 50	11.674	6.154*	0.011235	4.2224	89.004	0.23683	− 2.511	101.656	99.144	−0.00604	0.24209	− 50
− 49	11.996	5.498*	0.011248	4.1166	88.905	0.24292	− 2.262	101.519	99.257	−0.00543	0.24176	− 49
− 48	12.324	4.829*	0.011261	4.0140	88.806	0.24913	− 2.012	101.381	99.369	−0.00483	0.24143	− 48
− 47	12.660	4.144*	0.011273	3.9145	88.707	0.25546	− 1.762	101.242	99.480	−0.00422	0.24110	− 47
− 46	13.004	3.445*	0.011286	3.8179	88.607	0.26192	− 1.511	101.103	99.592	−0.00361	0.24078	− 46

* Inches of mercury below one atmosphere

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
−45	13.354	2.732*	0.011298	3.7243	88.507	0.26851	−1.260	100.963	99.703	−0.00301	0.24046	−45
−44	13.712	2.002*	0.011311	3.6334	88.407	0.27523	−1.009	100.823	99.814	−0.00241	0.24014	−44
−43	14.078	1.258*	0.011324	3.5452	88.307	0.28207	−0.757	100.683	99.925	−0.00181	0.23982	−43
−42	14.451	0.498*	0.011337	3.4596	88.207	0.28905	−0.505	100.541	100.036	−0.00120	0.23951	−42
−41	14.833	0.137	0.011350	3.3764	88.107	0.29617	−0.253	100.399	100.147	−0.00060	0.23919	−41
−40	15.222	0.526	0.011363	3.2957	88.006	0.30342	0.000	100.257	100.257	0.00000	0.23888	−40
−39	15.619	0.923	0.011376	3.2173	87.905	0.31082	0.253	100.114	100.367	0.00060	0.23858	−39
−38	16.024	1.328	0.011389	3.1412	87.805	0.31835	0.506	99.971	100.477	0.00120	0.23827	−38
−37	16.437	1.741	0.011402	3.0673	87.703	0.32602	0.760	99.826	100.587	0.00180	0.23797	−37
−36	16.859	2.163	0.011415	2.9954	87.602	0.33384	1.014	99.682	100.696	0.00240	0.23767	−36
−35	17.290	2.594	0.011428	2.9256	87.501	0.34181	1.269	99.536	100.805	0.00300	0.23737	−35
−34	17.728	3.032	0.011442	2.8578	87.399	0.34992	1.524	99.391	100.914	0.00359	0.23707	−34
−33	18.176	3.480	0.011455	2.7919	87.297	0.35818	1.779	99.244	101.023	0.00419	0.23678	−33
−32	18.633	3.937	0.011469	2.7278	87.195	0.36660	2.035	99.097	101.132	0.00479	0.23649	−32
−31	19.098	4.402	0.011482	2.6655	87.093	0.37517	2.291	98.949	101.240	0.00538	0.23620	−31
−30	19.573	4.877	0.011495	2.6049	86.991	0.38389	2.547	98.801	101.348	0.00598	0.23591	−30
−29	20.056	5.360	0.011509	2.5460	86.888	0.39278	2.804	98.652	101.456	0.00657	0.23563	−29
−28	20.549	5.853	0.011523	2.4887	86.785	0.40182	3.061	98.503	101.564	0.00716	0.23534	−28
−27	21.052	6.536	0.011536	2.4329	86.682	0.41103	3.318	98.353	101.671	0.00776	0.23506	−27
−26	21.564	6.868	0.011550	2.3787	86.579	0.42040	3.576	98.202	101.778	0.00835	0.23478	−26
−25	22.086	7.390	0.011564	2.3260	86.476	0.42993	3.834	98.051	101.885	0.00894	0.23451	−25
−24	22.617	7.921	0.011578	2.2746	86.372	0.43964	4.093	97.899	101.992	0.00953	0.23423	−24
−23	23.159	8.463	0.011592	2.2246	86.269	0.44951	4.352	97.746	102.098	0.01013	0.23396	−23
−22	23.711	9.015	0.011606	2.1760	86.165	0.45956	4.611	97.593	102.204	0.01072	0.23369	−22
−21	24.272	9.576	0.011620	2.1287	86.061	0.46978	4.871	97.439	102.310	0.01131	0.23342	−21
−20	24.845	10.149	0.011634	2.0826	85.956	0.48018	5.131	97.285	102.415	0.01189	0.23315	−20
−19	25.427	10.731	0.011648	2.0377	85.852	0.49075	5.391	97.129	102.521	0.01248	0.23289	−19
−18	26.020	11.324	0.011662	1.9940	85.747	0.50151	5.652	96.974	102.626	0.01307	0.23262	−18
−17	26.624	11.928	0.011677	1.9514	85.642	0.51245	5.913	96.817	102.730	0.01366	0.23236	−17
−16	27.239	12.543	0.011691	1.9099	85.537	0.52358	6.175	96.660	102.835	0.01425	0.23210	−16
−15	27.865	13.169	0.011705	1.8695	85.431	0.53489	6.436	96.502	102.939	0.01483	0.23184	−15
−14	28.501	13.805	0.011720	1.8302	85.326	0.54640	6.699	96.344	103.043	0.01542	0.23159	−14
−13	29.149	14.453	0.011734	1.7918	85.220	0.55810	6.961	96.185	103.146	0.01600	0.23133	−13
−12	29.809	15.113	0.011749	1.7544	85.114	0.56999	7.224	96.025	103.250	0.01659	0.23108	−12
−11	30.480	15.784	0.011764	1.7180	85.008	0.58207	7.488	95.865	103.353	0.01717	0.23083	−11
−10	31.162	16.466	0.011778	1.6825	84.901	0.59436	7.751	95.704	103.455	0.01776	0.23058	−10
− 9	31.856	17.160	0.011793	1.6479	84.795	0.60685	8.015	95.542	103.558	0.01834	0.23033	− 9
− 8	32.563	17.867	0.011808	1.6141	84.688	0.61954	8.280	95.380	103.660	0.01892	0.23008	− 8
− 7	33.281	18.585	0.011823	1.5812	84.581	0.63244	8.545	95.217	103.762	0.01950	0.22984	− 7
− 6	34.011	19.315	0.011838	1.5491	84.473	0.64555	8.810	95.053	103.863	0.02009	0.22960	− 6
− 5	34.754	20.058	0.011853	1.5177	84.366	0.65887	9.075	94.889	103.964	0.02067	0.22936	− 5
− 4	35.509	20.813	0.011868	1.4872	84.258	0.67240	9.341	94.724	104.065	0.02125	0.22912	− 4
− 3	36.277	21.581	0.011884	1.4574	84.150	0.68615	9.608	94.558	104.166	0.02183	0.22888	− 3
− 2	37.057	22.361	0.011899	1.4283	84.042	0.70012	9.874	94.391	104.266	0.02241	0.22864	− 2
− 1	37.850	23.154	0.011914	1.4000	83.933	0.71431	10.142	94.224	104.366	0.02299	0.22841	− 1
0	38.657	23.961	0.011930	1.3723	83.825	0.72872	10.409	94.056	104.465	0.02357	0.22817	0
1	39.476	24.780	0.011945	1.3453	83.716	0.74336	10.677	93.888	104.565	0.02414	0.22794	1
2	40.309	25.613	0.011961	1.3189	83.606	0.75822	10.945	93.718	104.663	0.02472	0.22771	2
3	41.155	26.459	0.011976	1.2931	83.497	0.77332	11.214	93.548	104.762	0.02530	0.22748	3
4	42.014	27.318	0.011992	1.2680	83.387	0.78865	11.483	93.378	104.860	0.02587	0.22725	4
5	42.888	28.192	0.012008	1.2434	83.277	0.80422	11.752	93.206	104.958	0.02645	0.22703	5
6	43.775	29.079	0.012024	1.2195	83.167	0.82003	12.022	93.034	105.056	0.02703	0.22680	6
7	44.676	29.980	0.012040	1.1961	83.057	0.83608	12.292	92.861	105.153	0.02760	0.22658	7
8	45.591	30.895	0.012056	1.1732	82.946	0.85237	12.562	92.688	105.250	0.02818	0.22636	8
9	46.521	31.825	0.012072	1.1509	82.835	0.86892	12.833	92.513	105.346	0.02875	0.22614	9

*Inches of mercury below one atmosphere

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
10	47.464	32.768	0.012088	1.1290	82.724	0.88571	13.104	92.338	105.442	0.02932	0.22592	10
11	48.423	33.727	0.012105	1.1077	82.612	0.90275	13.376	92.162	105.538	0.02990	0.22570	11
12	49.396	34.700	0.012121	1.0869	82.501	0.92005	13.648	91.986	105.633	0.03047	0.22548	12
13	50.384	35.688	0.012138	1.0665	82.389	0.93761	13.920	91.808	105.728	0.03104	0.22527	13
14	51.387	36.691	0.012154	1.0466	82.276	0.95544	14.193	91.630	105.823	0.03161	0.22505	14
15	52.405	37.709	0.012171	1.0272	82.164	0.97352	14.466	91.451	105.917	0.03218	0.22484	15
16	53.438	38.742	0.012188	1.0082	82.051	0.99188	14.739	91.272	106.011	0.03275	0.22463	16
17	54.487	39.791	0.012204	0.98961	81.938	1.0105	15.013	91.091	106.105	0.03332	0.22442	17
18	55.551	40.855	0.012221	0.97144	81.825	1.0294	15.288	90.910	106.198	0.03389	0.22421	18
19	56.631	41.935	0.012238	0.95368	81.711	1.0486	15.562	90.728	106.290	0.03446	0.22400	19
20	57.727	43.031	0.012255	0.93631	81.597	1.0680	15.837	90.545	106.383	0.03503	0.22379	20
21	58.839	44.143	0.012273	0.91932	81.483	1.0878	16.113	90.362	106.475	0.03560	0.22358	21
22	59.967	45.271	0.012290	0.90270	81.368	1.1078	16.389	90.178	106.566	0.03617	0.22338	22
23	61.111	46.415	0.012307	0.88645	81.253	1.1281	16.665	89.993	106.657	0.03674	0.22318	23
24	62.272	47.576	0.012325	0.87055	81.138	1.1487	16.942	89.807	106.748	0.03730	0.22297	24
25	63.450	48.754	0.012342	0.85500	81.023	1.1696	17.219	89.620	106.839	0.03787	0.22277	25
26	64.644	49.948	0.012360	0.83978	80.907	1.1908	17.496	89.433	106.928	0.03844	0.22257	26
27	65.855	51.159	0.012378	0.82488	80.791	1.2123	17.774	89.244	107.018	0.03900	0.22237	27
28	67.083	52.387	0.012395	0.81031	80.675	1.2341	18.052	89.055	107.107	0.03958	0.22217	28
29	68.328	53.632	0.012413	0.79604	80.558	1.2562	18.330	88.865	107.196	0.04013	0.22198	29
30	69.591	54.895	0.012431	0.78208	80.441	1.2786	18.609	88.674	107.284	0.04070	0.22178	30
31	70.871	56.175	0.012450	0.76842	80.324	1.3014	18.889	88.483	107.372	0.04126	0.22158	31
32	72.169	57.473	0.012468	0.75503	80.207	1.3244	19.169	88.290	107.459	0.04182	0.22139	32
33	73.485	58.789	0.012486	0.74194	80.089	1.3478	19.449	88.097	107.546	0.04239	0.22119	33
34	74.818	60.122	0.012505	0.72911	79.971	1.3715	19.729	87.903	107.632	0.04295	0.22100	34
35	76.170	61.474	0.012523	0.71655	79.852	1.3956	20.010	87.708	107.719	0.04351	0.22081	35
36	77.540	62.844	0.012542	0.70425	79.733	1.4199	20.292	87.512	107.804	0.04407	0.22062	36
37	78.929	64.233	0.012561	0.69221	79.614	1.4447	20.574	87.316	107.889	0.04464	0.22043	37
38	80.336	65.640	0.012579	0.68041	79.495	1.4697	20.856	87.118	107.974	0.04520	0.22024	38
39	81.761	67.065	0.012598	0.66885	79.375	1.4951	21.138	86.920	108.058	0.04576	0.22005	39
40	83.206	68.510	0.012618	0.65753	79.255	1.5208	21.422	86.720	108.142	0.04632	0.21986	40
41	84.670	69.974	0.012637	0.64643	79.134	1.5469	21.705	86.520	108.225	0.04688	0.21968	41
42	86.153	71.457	0.012656	0.63557	79.013	1.5734	21.989	86.319	108.308	0.04744	0.21949	42
43	87.655	72.959	0.012676	0.62492	78.892	1.6002	22.273	86.117	108.390	0.04800	0.21931	43
44	89.177	74.481	0.012695	0.61448	78.770	1.6274	22.558	85.914	108.472	0.04855	0.21912	44
45	90.719	76.023	0.012715	0.60425	78.648	1.6549	22.843	85.710	108.553	0.04911	0.21894	45
46	92.280	77.584	0.012735	0.59422	78.526	1.6829	23.129	85.506	108.634	0.04967	0.21876	46
47	93.861	79.165	0.012755	0.58440	78.403	1.7112	23.415	85.300	108.715	0.05023	0.21858	47
48	95.463	80.767	0.012775	0.57476	78.280	1.7398	23.701	85.094	108.795	0.05079	0.21839	48
49	97.085	82.389	0.012795	0.56532	78.157	1.7689	23.988	84.886	108.874	0.05134	0.21821	49
50	98.727	84.031	0.012815	0.55606	78.033	1.7984	24.275	84.678	108.953	0.05190	0.21803	50
51	100.39	85.69	0.012836	0.54698	77.909	1.8282	24.563	84.468	109.031	0.05245	0.21785	51
52	102.07	87.38	0.012856	0.53808	77.784	1.8585	24.851	84.258	109.109	0.05301	0.21768	52
53	103.78	89.08	0.012877	0.52934	77.659	1.8891	25.139	84.047	109.186	0.05357	0.21750	53
54	105.50	90.81	0.012898	0.52078	77.534	1.9202	25.429	83.834	109.263	0.05412	0.21732	54
55	107.25	92.56	0.012919	0.51238	77.408	1.9517	25.718	83.621	109.339	0.05468	0.21714	55
56	109.02	94.32	0.012940	0.50414	77.282	1.9836	26.008	83.407	109.415	0.05523	0.21697	56
57	110.81	96.11	0.012961	0.49606	77.155	2.0159	26.298	83.191	109.490	0.05579	0.21679	57
58	112.62	97.93	0.012982	0.48813	77.028	2.0486	26.589	82.975	109.564	0.05634	0.21662	58
59	114.46	99.76	0.013004	0.48035	76.900	2.0818	26.880	82.758	109.638	0.05689	0.21644	59
60	116.31	101.62	0.013025	0.47272	76.773	2.1154	27.172	82.540	109.712	0.05745	0.21627	60
61	118.19	103.49	0.013047	0.46523	76.644	2.1495	27.464	82.320	109.785	0.05800	0.21610	61
62	120.09	105.39	0.013069	0.45788	76.515	2.1840	27.757	82.100	109.857	0.05855	0.21592	62
63	122.01	107.32	0.013091	0.45066	76.386	2.2190	28.050	81.878	109.929	0.05910	0.21575	63
64	123.96	109.26	0.013114	0.44358	76.257	2.2544	28.344	81.656	110.000	0.05966	0.21558	64

TABLE 1 "FREON" 22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
65	125.93	111.23	0.013136	0.43663	76.126	2.2903	28.638	81.432	110.070	0.06021	0.21541	65
66	127.92	113.22	0.013159	0.42981	75.996	2.3266	28.932	81.208	110.140	0.06076	0.21524	66
67	129.94	115.24	0.013181	0.42311	75.865	2.3635	29.228	80.982	110.209	0.06131	0.21507	67
68	131.97	117.28	0.013204	0.41653	75.733	2.4008	29.523	80.755	110.278	0.06186	0.21490	68
69	134.04	119.34	0.013227	0.41007	75.601	2.4386	29.819	80.527	110.346	0.06241	0.21473	69
70	136.12	121.43	0.013251	0.40373	75.469	2.4769	30.116	80.298	110.414	0.06296	0.21456	70
71	138.23	123.54	0.013274	0.39751	75.336	2.5157	30.413	80.068	110.480	0.06351	0.21439	71
72	140.37	125.67	0.013297	0.39139	75.202	2.5550	30.710	79.836	110.547	0.06406	0.21422	72
73	142.52	127.83	0.013321	0.38539	75.068	2.5948	31.008	79.604	110.612	0.06461	0.21405	73
74	144.71	130.01	0.013345	0.37949	74.934	2.6351	31.307	79.370	110.677	0.06516	0.21388	74
75	146.91	132.22	0.013369	0.37369	74.799	2.6760	31.606	79.135	110.741	0.06571	0.21372	75
76	149.15	134.45	0.013393	0.36800	74.664	2.7174	31.906	78.899	110.805	0.06626	0.21355	76
77	151.40	136.71	0.013418	0.36241	74.528	2.7593	32.206	78.662	110.868	0.06681	0.21338	77
78	153.69	138.99	0.013442	0.35691	74.391	2.8018	32.506	78.423	110.930	0.06736	0.21321	78
79	155.99	141.30	0.013467	0.35151	74.254	2.8449	32.808	78.184	110.991	0.06791	0.21305	79
80	158.33	143.63	0.013492	0.34621	74.116	2.8885	33.109	77.943	111.052	0.06846	0.21288	80
81	160.68	145.99	0.013518	0.34099	73.978	2.9326	33.412	77.701	111.112	0.06901	0.21271	81
82	163.07	148.37	0.013543	0.33587	73.839	2.9774	33.714	77.457	111.171	0.06956	0.21255	82
83	165.48	150.78	0.013569	0.33083	73.700	3.0227	34.018	77.212	111.230	0.07011	0.21238	83
84	167.92	153.22	0.013594	0.32588	73.560	3.0686	34.322	76.966	111.288	0.07065	0.21222	84
85	170.38	155.68	0.013620	0.32101	73.420	3.1151	34.626	76.719	111.345	0.07120	0.21205	85
86	172.87	158.17	0.013647	0.31623	73.278	3.1622	34.931	76.470	111.401	0.07175	0.21188	86
87	175.38	160.69	0.013673	0.31153	73.137	3.2100	35.237	76.220	111.457	0.07230	0.21172	87
88	177.93	163.23	0.013700	0.30690	72.994	3.2583	35.543	75.968	111.512	0.07285	0.21155	88
89	180.50	165.80	0.013727	0.30236	72.851	3.3073	35.850	75.716	111.566	0.07339	0.21139	89
90	183.09	168.40	0.013754	0.29789	72.708	3.3570	36.158	75.461	111.619	0.07394	0.21122	90
91	185.72	171.02	0.013781	0.29349	72.564	3.4073	36.466	75.206	111.671	0.07449	0.21106	91
92	188.37	173.67	0.013809	0.28917	72.419	3.4582	36.774	74.949	111.723	0.07504	0.21089	92
93	191.05	176.35	0.013836	0.28491	72.273	3.5098	37.084	74.690	111.774	0.07559	0.21072	93
94	193.76	179.06	0.013864	0.28073	72.127	3.5621	37.394	74.430	111.824	0.07613	0.21056	94
95	196.50	181.80	0.013893	0.27662	71.980	3.6151	37.704	74.168	111.873	0.07668	0.21039	95
96	199.26	184.56	0.013921	0.27257	71.833	3.6688	38.016	73.905	111.921	0.07723	0.21023	96
97	202.05	187.36	0.013950	0.26859	71.685	3.7232	38.328	73.641	111.968	0.07778	0.21006	97
98	204.87	190.18	0.013979	0.26467	71.536	3.7783	38.640	73.375	112.015	0.07832	0.20989	98
99	207.72	193.03	0.014008	0.26081	71.386	3.8341	38.953	73.107	112.060	0.07887	0.20973	99
100	210.60	195.91	0.014038	0.25702	71.236	3.8907	39.267	72.838	112.105	0.07942	0.20956	100
101	213.51	198.82	0.014068	0.25329	71.084	3.9481	39.582	72.567	112.149	0.07997	0.20939	101
102	216.45	201.76	0.014098	0.24962	70.933	4.0062	39.897	72.294	112.192	0.08052	0.20923	102
103	219.42	204.72	0.014128	0.24600	70.780	4.0651	40.213	72.020	112.233	0.08107	0.20906	103
104	222.42	207.72	0.014159	0.24244	70.626	4.1247	40.530	71.744	112.274	0.08161	0.20889	104
105	225.45	210.75	0.014190	0.23894	70.472	4.1852	40.847	71.467	112.314	0.08216	0.20872	105
106	228.50	213.81	0.014221	0.23549	70.317	4.2465	41.166	71.187	112.353	0.08271	0.20855	106
107	231.59	216.90	0.014253	0.23209	70.161	4.3086	41.485	70.906	112.391	0.08326	0.20838	107
108	234.71	220.02	0.014285	0.22875	70.005	4.3715	41.804	70.623	112.427	0.08381	0.20821	108
109	237.86	223.17	0.014317	0.22546	69.847	4.4354	42.125	70.338	112.463	0.08436	0.20804	109
110	241.04	226.35	0.014350	0.22222	69.689	4.5000	42.446	70.052	112.498	0.08491	0.20787	110
111	244.25	229.56	0.014382	0.21903	69.529	4.5656	42.768	69.763	112.531	0.08546	0.20770	111
112	247.50	232.80	0.014416	0.21589	69.369	4.6321	43.091	69.473	112.564	0.08601	0.20753	112
113	250.77	236.08	0.014449	0.21279	69.208	4.6994	43.415	69.180	112.595	0.08656	0.20736	113
114	254.08	239.38	0.014483	0.20974	69.046	4.7677	43.739	68.886	112.626	0.08711	0.20718	114
115	257.42	242.72	0.014517	0.20674	68.883	4.8370	44.065	68.590	112.655	0.08766	0.20701	115
116	260.79	246.10	0.014552	0.20378	68.719	4.9072	44.391	68.291	112.682	0.08821	0.20684	116
117	264.20	249.50	0.014587	0.20087	68.554	4.9784	44.718	67.991	112.709	0.08876	0.20666	117
118	267.63	252.94	0.014622	0.19800	68.388	5.0506	45.046	67.688	112.735	0.08932	0.20649	118
119	271.10	256.41	0.014658	0.19517	68.221	5.1238	45.375	67.384	112.759	0.08987	0.20631	119

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
120	274.60	259.91	0.014694	0.19238	68.054	5.1981	45.705	67.077	112.782	0.09042	0.20613	120
121	278.14	263.44	0.014731	0.18963	67.885	5.2734	46.036	66.767	112.803	0.09098	0.20595	121
122	281.71	267.01	0.014768	0.18692	67.714	5.3498	46.368	66.456	112.824	0.09153	0.20578	122
123	285.31	270.62	0.014805	0.18426	67.543	5.4272	46.701	66.142	112.843	0.09208	0.20560	123
124	288.95	274.25	0.014843	0.18163	67.371	5.5058	47.034	65.826	112.860	0.09264	0.20542	124
125	292.62	277.92	0.014882	0.17903	67.197	5.5856	47.369	65.507	112.877	0.09320	0.20523	125
126	296.33	281.63	0.014920	0.17648	67.023	5.6665	47.705	65.186	112.891	0.09375	0.20505	126
127	300.07	285.37	0.014960	0.17396	66.847	5.7486	48.042	64.863	112.905	0.09431	0.20487	127
128	303.84	289.14	0.014999	0.17147	66.670	5.8319	48.380	64.537	112.917	0.09487	0.20468	128
129	307.65	292.95	0.015039	0.16902	66.492	5.9164	48.719	64.208	112.927	0.09543	0.20449	129
130	311.50	296.80	0.015080	0.16661	66.312	6.0022	49.059	63.877	112.936	0.09598	0.20431	130
131	315.38	300.68	0.015121	0.16422	66.131	6.0893	49.400	63.543	112.943	0.09654	0.20412	131
132	319.29	304.60	0.015163	0.16187	65.949	6.1777	49.743	63.206	112.949	0.09711	0.20393	132
133	323.25	308.55	0.015206	0.15956	65.766	6.2674	50.087	62.866	112.953	0.09767	0.20374	133
134	327.23	312.54	0.015248	0.15727	65.581	6.3585	50.432	62.523	112.955	0.09823	0.20354	134
135	331.26	316.56	0.015292	0.15501	65.394	6.4510	50.778	62.178	112.956	0.09879	0.20335	135
136	335.32	320.63	0.015336	0.15279	65.207	6.5450	51.125	61.829	112.954	0.09936	0.20315	136
137	339.42	324.73	0.015381	0.15059	65.017	6.6405	51.474	61.477	112.951	0.09992	0.20295	137
138	343.56	328.86	0.015426	0.14843	64.826	6.7374	51.824	61.123	112.947	0.10049	0.20275	138
139	347.73	333.04	0.015472	0.14629	64.634	6.8359	52.175	60.764	112.940	0.10106	0.20255	139
140	351.94	337.25	0.015518	0.14418	64.440	6.9360	52.528	60.403	112.931	0.10163	0.20235	140
141	356.19	341.50	0.015566	0.14209	64.244	7.0377	52.883	60.038	112.921	0.10220	0.20214	141
142	360.48	345.79	0.015613	0.14004	64.047	7.1410	53.238	59.670	112.908	0.10277	0.20194	142
143	364.81	350.11	0.015662	0.13801	63.848	7.2461	53.596	59.298	112.893	0.10334	0.20173	143
144	369.17	354.48	0.015712	0.13600	63.647	7.3529	53.955	58.922	112.877	0.10391	0.20152	144
145	373.58	358.88	0.015762	0.13402	63.445	7.4615	54.315	58.543	112.858	0.10449	0.20130	145
146	378.02	363.32	0.015813	0.13207	63.240	7.5719	54.677	58.159	112.836	0.10507	0.20109	146
147	382.50	367.81	0.015865	0.13014	63.034	7.6842	55.041	57.772	112.813	0.10564	0.20087	147
148	387.03	372.33	0.015917	0.12823	62.825	7.7985	55.406	57.380	112.787	0.10622	0.20065	148
149	391.59	376.89	0.015971	0.12635	62.615	7.9148	55.774	56.985	112.758	0.10681	0.20042	149
150	396.19	381.50	0.016025	0.12448	62.402	8.0331	56.143	56.585	112.728	0.10739	0.20020	150
151	400.84	386.14	0.016080	0.12265	62.187	8.1536	56.514	56.180	112.694	0.10797	0.19997	151
152	405.52	390.83	0.016137	0.12083	61.970	8.2763	56.887	55.771	112.658	0.10856	0.19974	152
153	410.25	395.56	0.016194	0.11903	61.751	8.4011	57.261	55.358	112.619	0.10915	0.19950	153
154	415.02	400.32	0.016252	0.11726	61.529	8.5284	57.638	54.939	112.577	0.10974	0.19926	154
155	419.83	405.13	0.016312	0.11550	61.305	8.6580	58.017	54.515	112.533	0.11034	0.19902	155
156	424.68	409.99	0.016372	0.11376	61.079	8.7901	58.399	54.087	112.485	0.11093	0.19878	156
157	429.58	414.88	0.016434	0.11205	60.849	8.9247	58.782	53.652	112.435	0.11153	0.19853	157
158	434.52	419.82	0.016497	0.11035	60.617	9.0620	59.168	53.213	112.381	0.11213	0.19828	158
159	439.50	424.80	0.016561	0.10867	60.383	9.2020	59.557	52.767	112.324	0.11273	0.19802	159
160	444.53	429.83	0.016627	0.10701	60.145	9.3449	59.948	52.316	112.263	0.11334	0.19776	160
161	449.59	434.90	0.016693	0.10537	59.904	9.4907	60.341	51.858	112.199	0.11395	0.19750	161
162	454.71	440.01	0.016762	0.10374	59.660	9.6395	60.737	51.394	112.131	0.11456	0.19723	162
163	459.87	445.17	0.016831	0.10213	59.413	9.7915	61.136	50.923	112.060	0.11518	0.19696	163
164	465.07	450.37	0.016902	0.10054	59.163	9.9467	61.538	50.446	111.984	0.11580	0.19668	164
165	470.32	455.62	0.016975	0.098956	58.909	10.106	61.943	49.961	111.904	0.11642	0.19640	165
166	475.61	460.92	0.017050	0.097393	58.651	10.268	62.351	49.469	111.820	0.11705	0.19611	166
167	480.95	466.26	0.017126	0.095844	58.390	10.434	62.763	48.969	111.732	0.11768	0.19581	167
168	486.34	471.65	0.017204	0.094309	58.125	10.603	63.178	48.461	111.639	0.11831	0.19552	168
169	491.78	477.08	0.017285	0.092787	57.855	10.777	63.596	47.945	111.541	0.11895	0.19521	169
170	497.26	482.56	0.017367	0.091279	57.581	10.955	64.019	47.419	111.438	0.11959	0.19490	170
171	502.79	488.09	0.017451	0.089783	57.303	11.138	64.445	46.885	111.330	0.12024	0.19458	171
172	508.37	493.67	0.017538	0.088299	57.019	11.325	64.875	46.340	111.216	0.12089	0.19425	172
173	513.99	499.30	0.017627	0.086827	56.731	11.517	65.310	45.786	111.096	0.12155	0.19392	173
174	519.67	504.97	0.017719	0.085365	56.438	11.714	65.750	45.221	110.970	0.12222	0.19358	174

TABLE I HCFC-22 SATURATION PROPERTIES—TEMPERATURE TABLE

TEMP.	PRESSURE		VOLUME cu ft/lb		DENSITY lb/cu ft		ENTHALPY Btu/lb			ENTROPY Btu/(lb)(°R)		TEMP.
°F	PSIA	PSIG	LIQUID v_f	VAPOR v_g	LIQUID $1/v_f$	VAPOR $1/v_g$	LIQUID h_f	LATENT h_{fg}	VAPOR h_g	LIQUID s_f	VAPOR s_g	°F
175	525.39	510.70	0.017813	0.083914	56.139	11.917	66.194	44.644	110.838	0.12289	0.19323	175
176	531.17	516.47	0.017910	0.082473	55.834	12.125	66.643	44.056	110.699	0.12356	0.19287	176
177	537.00	522.30	0.018011	0.081040	55.523	12.340	67.098	43.455	110.553	0.12425	0.19250	177
178	542.87	528.18	0.018114	0.079616	55.205	12.560	67.558	42.841	110.400	0.12494	0.19212	178
179	548.80	534.11	0.018221	0.078200	54.881	12.788	68.025	42.213	110.238	0.12564	0.19173	179
180	554.78	540.09	0.018332	0.076790	54.549	13.023	68.498	41.570	110.068	0.12635	0.19133	180
181	560.82	546.12	0.018447	0.075386	54.209	13.265	68.978	40.911	109.888	0.12707	0.19092	181
182	566.90	552.21	0.018566	0.073987	53.861	13.516	69.465	40.235	109.700	0.12779	0.19050	182
183	573.04	558.35	0.018690	0.072592	53.503	13.776	69.960	39.540	109.500	0.12853	0.19005	183
184	579.24	564.54	0.018820	0.071201	53.136	14.045	70.464	38.826	109.290	0.12928	0.18960	184
185	585.49	570.79	0.018954	0.069811	52.759	14.324	70.977	38.090	109.067	0.13004	0.18913	185
186	591.80	577.10	0.019095	0.068421	52.370	14.615	71.500	37.332	108.832	0.13082	0.18864	186
187	598.16	583.46	0.019243	0.067031	51.968	14.918	72.034	36.548	108.582	0.13161	0.18813	187
188	604.58	589.88	0.019397	0.065638	51.553	15.235	72.579	35.738	108.317	0.13242	0.18760	188
189	611.05	596.36	0.019561	0.064241	51.123	15.566	73.138	34.897	108.035	0.13325	0.18704	189
190	617.59	602.89	0.019733	0.062837	50.677	15.914	73.711	34.023	107.734	0.13409	0.18646	190
191	624.19	609.49	0.019915	0.061424	50.213	16.280	74.300	33.112	107.412	0.13496	0.18585	191
192	630.84	616.14	0.020110	0.059999	49.728	16.667	74.907	32.160	107.067	0.13585	0.18520	192
193	637.56	622.86	0.020317	0.058558	49.219	17.077	75.534	31.162	106.696	0.13678	0.18452	193
194	644.33	629.64	0.020540	0.057096	48.685	17.514	76.184	30.111	106.295	0.13773	0.18380	194
195	651.18	636.48	0.020782	0.055609	48.119	17.983	76.861	28.998	105.858	0.13873	0.18302	195
196	658.08	643.38	0.021045	0.054089	47.518	18.488	77.568	27.813	105.381	0.13977	0.18218	196
197	665.05	650.35	0.021334	0.052528	46.874	19.038	78.313	26.543	104.856	0.14086	0.18128	197
198	672.08	657.39	0.021655	0.050912	46.178	19.642	79.102	25.169	104.270	0.14202	0.18029	198
199	679.19	664.49	0.022018	0.049224	45.417	20.315	79.946	23.664	103.610	0.14326	0.17918	199
200	686.36	671.66	0.022436	0.047438	44.571	21.080	80.862	21.990	102.853	0.14460	0.17794	200
201	693.60	678.90	0.022931	0.045513	43.609	21.972	81.875	20.086	101.961	0.14609	0.17649	201
202	700.91	686.21	0.023543	0.043375	42.476	23.055	83.030	17.840	100.870	0.14779	0.17475	202
203	708.29	693.59	0.024358	0.040868	41.054	24.469	84.418	15.022	99.439	0.14984	0.17250	203
204	715.75	701.05	0.025647	0.037545	38.991	26.635	86.309	10.951	97.260	0.15264	0.16914	204
204.81	721.91	707.21	0.030525	0.030525	32.760	32.760	91.329	0.000	91.329	0.16016	0.16016	204.81

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	0.20			0.25			0.30			0.35			TEMP. °F
	29.51400* (−155.80 °F)			29.41220* (−151.60 °F)			29.31040* (−148.06 °F)			29.20860* (−145.00 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(188.29)	(86.853)	(0.29985)	(152.68)	(87.337)	(0.29632)	(128.66)	(87.746)	(0.29346)	(111.34)	(88.100)	(0.29106)	
−150	191.91	87.533	0.30207	153.47	87.525	0.29693	—	—	—	—	—	—	−150
−140	198.13	88.717	0.30583	158.46	88.710	0.30069	132.01	88.702	0.29649	113.12	88.695	0.29293	−140
−130	204.35	89.918	0.30953	163.44	89.911	0.30439	136.16	89.904	0.30019	116.68	89.897	0.29664	−130
−120	210.57	91.135	0.31317	168.42	91.129	0.30803	140.31	91.123	0.30383	120.24	91.116	0.30028	−120
−110	216.79	92.370	0.31675	173.39	92.364	0.31161	144.46	92.358	0.30741	123.80	92.352	0.30386	−110
−100	223.01	93.621	0.32028	178.37	93.615	0.31514	148.61	93.609	0.31094	127.36	93.604	0.30739	−100
− 90	229.22	94.888	0.32375	183.34	94.883	0.31862	152.76	94.878	0.31442	130.91	94.872	0.31087	− 90
− 80	235.44	96.173	0.32718	188.32	96.168	0.32205	156.91	96.163	0.31785	134.47	96.158	0.31430	− 80
− 70	241.65	97.473	0.33056	193.29	97.469	0.32543	161.05	97.464	0.32123	138.02	97.459	0.31768	− 70
− 60	247.87	98.791	0.33390	198.27	98.786	0.32877	165.20	98.782	0.32457	141.58	98.777	0.32102	− 60
− 50	254.08	100.124	0.33720	203.24	100.120	0.33206	169.34	100.116	0.32787	145.13	100.112	0.32432	− 50
− 40	260.29	101.475	0.34045	208.21	101.471	0.33532	173.49	101.467	0.33113	148.69	101.463	0.32758	− 40
− 30	266.50	102.841	0.34367	213.18	102.837	0.33854	177.63	102.834	0.33435	152.24	102.830	0.33080	− 30
− 20	272.71	104.224	0.34685	218.15	104.220	0.34172	181.77	104.217	0.33753	155.79	104.213	0.33398	− 20
− 10	278.93	105.623	0.35000	223.12	105.619	0.34487	185.92	105.616	0.34067	159.34	105.613	0.33713	− 10
0	285.14	107.038	0.35311	228.09	107.035	0.34798	190.06	107.032	0.34379	162.89	107.028	0.34024	0
10	291.35	108.469	0.35619	233.06	108.466	0.35106	194.20	108.463	0.34687	166.44	108.460	0.34332	10
20	297.56	109.916	0.35924	238.03	109.913	0.35411	198.34	109.910	0.34992	169.99	109.907	0.34637	20
30	303.76	111.378	0.36225	243.00	111.376	0.35713	202.48	111.373	0.35293	173.54	111.370	0.34939	30
40	309.97	112.857	0.36524	247.96	112.854	0.36011	206.62	112.852	0.35592	177.09	112.849	0.35238	40
50	316.18	114.351	0.36820	252.93	114.348	0.36307	210.76	114.346	0.35888	180.64	114.344	0.35534	50
60	322.39	115.860	0.37114	257.90	115.858	0.36601	214.90	115.856	0.36182	184.19	115.853	0.35827	60
70	328.60	117.385	0.37404	262.87	117.383	0.36891	219.04	117.381	0.36472	187.74	117.379	0.36118	70
80	334.81	118.925	0.37692	267.83	118.923	0.37179	223.18	118.921	0.36761	191.29	118.919	0.36406	80
90	341.01	120.481	0.37978	272.80	120.479	0.37465	227.32	120.477	0.37046	194.84	120.475	0.36692	90
100	347.22	122.051	0.38261	277.77	122.049	0.37748	231.46	122.047	0.37329	198.39	122.045	0.36975	100
110	353.43	123.636	0.38542	282.73	123.635	0.38029	235.60	123.633	0.37610	201.94	123.631	0.37256	110
120	359.64	125.237	0.38820	287.70	125.235	0.38307	239.74	125.233	0.37889	205.48	125.231	0.37534	120
130	365.84	126.852	0.39096	292.66	126.850	0.38584	243.88	126.848	0.38165	209.03	126.847	0.37811	130
140	372.05	128.481	0.39370	297.63	128.480	0.38858	248.02	128.478	0.38439	212.58	128.476	0.38085	140
150	378.26	130.125	0.39642	302.60	130.124	0.39130	252.16	130.122	0.38711	216.13	130.121	0.38357	150
160	—	—	—	—	—	—	256.29	131.781	0.38981	219.67	131.779	0.38626	160

TEMP. °F	0.40			0.45			0.50			0.60			TEMP. °F
	29.10680* (−142.29 °F)			29.0050* (−139.86 °F)			28.90319* (−137.64 °F)			28.69959* (−133.73 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(98.232)	(88.415)	(0.28899)	(87.965)	(88.697)	(0.28718)	(79.698)	(88.955)	(0.28557)	(67.192)	(89.412)	(0.28281)	
−140	98.946	88.688	0.28985	—	—	—	—	—	—	—	—	—	−140
−130	102.07	89.890	0.29355	90.700	89.884	0.29083	81.608	89.877	0.28840	67.970	89.863	0.28418	−130
−120	105.18	91.110	0.29720	93.473	91.103	0.29448	84.105	91.097	0.29205	70.053	91.084	0.28783	−120
−110	108.30	92.346	0.30078	96.244	92.340	0.29807	86.601	92.334	0.29563	72.136	92.322	0.29142	−110
−100	111.41	93.598	0.30431	99.015	93.593	0.30160	89.095	93.587	0.29917	74.216	93.576	0.29496	−100
− 90	114.53	94.867	0.30779	101.78	94.862	0.30508	91.589	94.857	0.30265	76.296	94.846	0.29844	− 90
− 80	117.64	96.153	0.31123	104.55	96.148	0.30851	94.081	96.143	0.30608	78.375	96.133	0.30188	− 80
− 70	120.75	97.455	0.31461	107.32	97.450	0.31190	96.573	97.445	0.30947	80.453	97.436	0.30526	− 70
− 60	123.86	98.773	0.31795	110.09	98.769	0.31524	99.064	98.764	0.31281	82.530	98.755	0.30861	− 60
− 50	126.97	100.108	0.32125	112.85	100.104	0.31854	101.55	100.099	0.31611	84.607	100.091	0.31191	− 50
− 40	130.08	101.459	0.32451	115.62	101.455	0.32180	104.04	101.451	0.31937	86.682	101.443	0.31517	− 40
− 30	133.19	102.826	0.32773	118.38	102.823	0.32502	106.53	102.819	0.32259	88.758	102.811	0.31839	− 30
− 20	136.30	104.210	0.33091	121.15	104.206	0.32820	109.02	104.203	0.32577	90.832	104.196	0.32158	− 20
− 10	139.41	105.610	0.33406	123.91	105.606	0.33135	111.51	105.603	0.32892	92.907	105.596	0.32472	− 10
0	142.52	107.025	0.33717	126.67	107.022	0.33446	114.00	107.019	0.33204	94.980	107.013	0.32784	0
10	145.63	108.457	0.34025	129.44	108.454	0.33754	116.48	108.451	0.33512	97.054	108.445	0.33092	10
20	148.73	109.904	0.34330	132.20	109.902	0.34059	118.97	109.899	0.33817	99.127	109.893	0.33397	20
30	151.84	111.368	0.34632	134.96	111.365	0.34361	121.46	111.362	0.34119	101.20	111.357	0.33699	30
40	154.95	112.847	0.34931	137.72	112.844	0.34660	123.94	112.842	0.34418	103.27	112.836	0.33998	40
50	158.05	114.341	0.35227	140.48	114.339	0.34956	126.43	114.336	0.34714	105.34	114.331	0.34295	50
60	161.16	115.851	0.35520	143.24	115.849	0.35250	128.91	115.846	0.35007	107.42	115.842	0.34588	60
70	164.27	117.376	0.35811	146.01	117.374	0.35540	131.40	117.372	0.35298	109.49	117.368	0.34879	70
80	167.37	118.917	0.36099	148.77	118.915	0.35829	133.88	118.913	0.35586	111.56	118.909	0.35167	80
90	170.48	120.473	0.36385	151.53	120.471	0.36114	136.37	120.469	0.35872	113.63	120.465	0.35453	90
100	173.58	122.043	0.36668	154.29	122.042	0.36397	138.85	122.040	0.36155	115.70	122.036	0.35736	100
110	176.69	123.629	0.36949	157.05	123.627	0.36678	141.34	123.626	0.36436	117.77	123.622	0.36017	110
120	179.79	125.230	0.37227	159.81	125.228	0.36957	143.82	125.226	0.36715	119.84	125.223	0.36295	120
130	182.90	126.845	0.37504	162.57	126.843	0.37233	146.31	126.842	0.36991	121.91	126.838	0.36572	130
140	186.00	128.475	0.37778	165.33	128.473	0.37507	148.79	128.472	0.37265	123.98	128.468	0.36846	140
150	189.10	130.119	0.38050	168.09	130.117	0.37779	151.27	130.116	0.37537	126.05	130.113	0.37118	150
160	192.21	131.778	0.38320	170.85	131.776	0.38049	153.76	131.775	0.37807	128.12	131.772	0.37388	160
170	—	—	—	173.61	133.449	0.38317	156.24	133.448	0.38075	130.19	133.445	0.37656	170

*Inches of mercury below one atmosphere

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	0.70			0.80			0.90			1.0			TEMP. °F
	28.49599* (−130.34 °F)			28.29239* (−127.33 °F)			28.08879* (−124.62 °F)			27.8852* (−122.16 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(58.168)	(89.809)	(0.28049)	(51.341)	(90.161)	(0.27850)	(45.989)	(90.478)	(0.27676)	(41.678)	(90.766)	(0.27521)	
−130	58.229	89.849	0.28061	—	—	—	—	—	—	—	—	—	−130
−120	60.017	91.071	0.28427	52.489	91.058	0.28117	46.634	91.045	0.27844	41.950	91.033	0.27599	−120
−110	61.803	92.310	0.28786	54.054	92.297	0.28477	48.027	92.285	0.28204	43.205	92.273	0.27959	−110
−100	63.589	93.564	0.29140	55.618	93.553	0.28831	49.418	93.542	0.28558	44.458	93.530	0.28314	−100
− 90	65.373	94.835	0.29488	57.180	94.825	0.29179	50.808	94.814	0.28907	45.711	94.803	0.28663	− 90
− 80	67.156	96.123	0.29832	58.742	96.113	0.29523	52.198	96.103	0.29251	46.962	96.093	0.29007	− 80
− 70	68.939	97.426	0.30171	60.303	97.417	0.29862	53.586	97.408	0.29590	48.213	97.398	0.29346	− 70
− 60	70.721	98.747	0.30505	61.863	98.738	0.30197	54.974	98.729	0.29925	49.463	98.720	0.29681	− 60
− 50	72.501	100.083	0.30835	63.423	100.075	0.30527	56.361	100.066	0.30255	50.712	100.058	0.30012	− 50
− 40	74.282	101.435	0.31162	64.981	101.428	0.30854	57.748	101.420	0.30582	51.961	101.412	0.30338	− 40
− 30	76.062	102.804	0.31484	66.538	102.797	0.31176	59.133	102.789	0.30904	53.209	102.782	0.30661	− 30
− 20	77.841	104.189	0.31802	68.097	104.182	0.31495	60.519	104.175	0.31223	54.456	104.168	0.30980	− 20
− 10	79.620	105.590	0.32117	69.654	105.583	0.31810	61.903	105.576	0.31538	55.703	105.570	0.31295	− 10
0	81.398	107.006	0.32429	71.211	107.000	0.32121	63.288	106.994	0.31850	56.949	106.988	0.31607	0
10	83.176	108.439	0.32737	72.767	108.433	0.32430	64.672	108.427	0.32158	58.195	108.421	0.31915	10
20	84.953	109.887	0.33042	74.323	109.882	0.32735	66.055	109.876	0.32464	59.441	109.871	0.32221	20
30	86.730	111.352	0.33345	75.879	111.346	0.33037	67.439	111.341	0.32766	60.686	111.336	0.32523	30
40	88.507	112.831	0.33644	77.434	112.826	0.33336	68.821	112.821	0.33065	61.931	112.816	0.32822	40
50	90.284	114.327	0.33940	78.989	114.322	0.33633	70.204	114.317	0.33361	63.176	114.312	0.33119	50
60	92.060	115.837	0.34233	80.544	115.833	0.33926	71.587	115.828	0.33655	64.421	115.823	0.33412	60
70	93.836	117.363	0.34524	82.098	117.359	0.34217	72.969	117.354	0.33946	65.665	117.350	0.33703	70
80	95.612	118.904	0.34813	83.653	118.900	0.34505	74.351	118.896	0.34234	66.909	118.892	0.33992	80
90	97.388	120.461	0.35098	85.207	120.457	0.34791	75.732	120.453	0.34520	68.153	120.449	0.34278	90
100	99.164	122.032	0.35382	86.761	122.028	0.35074	77.114	122.024	0.34803	69.397	122.021	0.34561	100
110	100.94	123.618	0.35662	88.314	123.615	0.35355	78.495	123.611	0.35084	70.640	123.607	0.34842	110
120	102.71	125.219	0.35941	89.868	125.216	0.35634	79.877	125.212	0.35363	71.884	125.209	0.35121	120
130	104.49	126.835	0.36217	91.422	126.832	0.35910	81.258	126.828	0.35639	73.127	126.825	0.35397	130
140	106.26	128.465	0.36491	92.975	128.462	0.36184	82.369	128.459	0.35914	74.370	128.455	0.35671	140
150	108.04	130.110	0.36763	94.528	130.107	0.36456	84.020	130.104	0.36186	75.613	130.101	0.35943	150
160	109.81	131.769	0.37033	96.081	131.766	0.36726	85.400	131.763	0.36456	76.856	131.760	0.36213	160
170	111.59	133.442	0.37301	97.634	133.439	0.36994	86.781	133.436	0.36723	78.098	133.434	0.36481	170
180	—	—	—	99.187	135.127	0.37260	88.162	135.124	0.36989	79.341	135.121	0.36747	180

TEMP. °F	1.2			1.4			1.6			1.8			TEMP. °F
	27.4780* (−117.80 °F)			27.0708* (−114.02 °F)			26.6636* (−110.66 °F)			26.2564* (−107.63 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(35.154)	(91.278)	(0.27255)	(30.444)	(91.724)	(0.27033)	(26.879)	(92.119)	(0.26842)	(24.084)	(92.474)	(0.26675)	
−110	35.972	92.249	0.27536	30.806	92.225	0.27177	26.931	92.201	0.26865	—	—	—	−110
−100	37.019	93.508	0.27891	31.705	93.485	0.27532	27.719	93.462	0.27221	24.619	93.439	0.26946	−100
− 90	38.064	94.782	0.28240	32.603	94.761	0.27882	28.506	94.739	0.27571	25.220	94.718	0.27297	− 90
− 80	39.019	96.073	0.28585	33.500	96.053	0.28227	29.293	96.033	0.27916	26.020	96.013	0.27642	− 80
− 70	40.153	97.379	0.28924	34.396	97.361	0.28567	30.078	97.342	0.28257	26.720	97.323	0.27983	− 70
− 60	41.196	98.702	0.29259	35.291	98.685	0.28902	30.862	98.667	0.28593	27.418	98.649	0.28319	− 60
− 50	42.238	100.041	0.29590	36.186	100.024	0.29233	31.646	100.008	0.28924	28.116	99.991	0.28650	− 50
− 40	43.280	101.396	0.29917	37.080	101.380	0.29560	32.429	101.365	0.29251	28.813	101.349	0.28978	− 40
− 30	44.321	102.767	0.30240	37.973	102.752	0.29883	33.212	102.737	0.29574	29.509	102.722	0.29301	− 30
− 20	45.362	104.154	0.30559	38.866	104.140	0.30203	33.994	104.126	0.29894	30.205	104.112	0.29621	− 20
− 10	46.402	105.556	0.30874	39.758	105.543	0.30518	34.776	105.530	0.30209	30.900	105.517	0.29937	− 10
0	47.441	106.975	0.31186	40.650	106.962	0.30830	35.557	106.950	0.30522	31.595	106.937	0.30249	0
10	48.481	108.409	0.31495	41.542	108.397	0.31139	36.337	108.385	0.30831	32.290	108.373	0.30558	10
20	49.520	109.859	0.31800	42.433	109.848	0.31445	37.118	109.837	0.31136	32.984	109.825	0.30864	20
30	50.558	111.325	0.32103	43.324	111.314	0.31747	37.898	111.303	0.31439	33.678	111.293	0.31167	30
40	51.596	112.806	0.32402	44.214	112.796	0.32047	38.677	112.785	0.31739	34.371	112.775	0.31467	40
50	52.634	114.302	0.32699	45.104	114.293	0.32343	39.457	114.283	0.32035	35.064	114.273	0.31764	50
60	53.672	115.814	0.32992	45.994	115.805	0.32637	40.236	115.796	0.32329	35.757	115.786	0.32058	60
70	54.709	117.341	0.33284	46.884	117.332	0.32928	41.015	117.324	0.32621	36.450	117.315	0.32349	70
80	55.747	118.883	0.33572	47.773	118.875	0.33217	41.794	118.867	0.32909	37.143	118.588	0.32638	80
90	56.784	120.441	0.33858	48.663	120.433	0.33503	42.572	120.425	0.33195	37.835	120.417	0.32924	90
100	57.821	122.013	0.34141	49.552	122.005	0.33786	43.350	121.998	0.33479	38.527	121.990	0.33207	100
110	58.857	123.600	0.34422	50.441	123.593	0.34067	44.129	123.585	0.33760	39.219	123.578	0.33488	110
120	59.894	125.202	0.34701	51.330	125.195	0.34346	44.907	125.188	0.34039	39.911	125.181	0.33767	120
130	60.930	126.818	0.34978	52.218	126.811	0.34623	45.684	126.805	0.34315	40.603	126.798	0.34044	130
140	61.966	128.449	0.35252	53.107	128.443	0.34897	46.462	128.436	0.34590	41.294	128.430	0.34318	140
150	63.003	130.094	0.35524	53.995	130.088	0.35169	47.240	130.082	0.34862	41.986	130.076	0.34591	150
160	64.039	131.754	0.35794	54.884	131.748	0.35439	48.017	131.742	0.35132	42.677	131.736	0.34861	160
170	65.075	133.428	0.36062	55.772	133.422	0.35707	48.795	133.417	0.35400	43.368	133.411	0.35129	170
180	66.110	135.116	0.36328	56.660	135.110	0.35973	49.572	135.105	0.35666	44.059	135.099	0.35395	180
190	67.146	136.818	0.36592	57.548	136.812	0.36237	50.349	136.807	0.35930	44.750	136.802	0.35659	190
200	—	—	—	—	—	—	—	—	—	45.441	138.518	0.35921	200

*Inches of mercury below one atmosphere

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	2.0			2.5			3.0			3.5			TEMP. °F
	25.8492* (−104.87 °F)			24.8312* (−98.86 °F)			23.8132* (−93.78 °F)			22.7952* (−89.35 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(21.831)	(92.799)	(0.26527)	(17.733)	(93.504)	(0.26216)	(14.964)	(94.101)	(0.25966)	(12.963)	(94.619)	(0.25757)	
−100	22.139	93.417	0.26700	—	—	—	—	—	—	—	—	—	−100
− 90	22.771	94.697	0.27051	18.183	94.643	0.26528	15.125	94.589	0.26099	—	—	—	− 90
− 80	23.403	95.993	0.27397	18.690	95.942	0.26875	15.549	95.892	0.26446	13.305	95.841	0.26083	− 80
− 70	24.033	97.304	0.27737	19.197	97.257	0.27216	15.972	97.209	0.26789	13.669	97.162	0.26426	− 70
− 60	24.662	98.631	0.28074	19.702	98.587	0.27553	16.395	98.542	0.27127	14.033	98.497	0.26765	− 60
− 50	25.291	99.974	0.28406	20.207	99.932	0.27886	16.817	99.890	0.27460	14.396	99.848	0.27098	− 50
− 40	25.919	101.333	0.28733	20.711	101.293	0.28214	17.238	101.254	0.27789	14.587	101.214	0.27428	− 40
− 30	26.546	102.707	0.29057	21.214	102.670	0.28538	17.659	102.633	0.28113	15.120	102.595	0.27753	− 30
− 20	27.173	104.097	0.29377	21.717	104.062	0.28859	18.079	104.027	0.28434	15.481	103.992	0.28074	− 20
− 10	27.800	105.503	0.29693	22.219	105.470	0.29175	18.499	105.437	0.28751	15.841	105.403	0.28392	− 10
0	28.426	106.925	0.30005	22.721	106.893	0.29488	18.918	106.861	0.29064	16.201	106.830	0.28706	0
10	29.051	108.362	0.30315	23.223	108.332	0.29798	19.337	108.302	0.29374	16.561	108.272	0.29016	10
20	29.677	109.814	0.30621	23.724	109.786	0.30104	19.755	109.757	0.29681	16.920	109.729	0.29323	20
30	30.302	111.282	0.30923	24.225	111.255	0.30407	20.173	111.228	0.29984	17.279	111.201	0.29627	30
40	30.926	112.765	0.31223	24.725	112.739	0.30707	20.591	112.714	0.30285	17.638	112.688	0.29927	40
50	31.550	114.264	0.31520	25.225	114.239	0.31004	21.008	114.215	0.30582	17.996	114.191	0.30225	50
60	32.174	115.777	0.31814	25.725	115.754	0.31299	21.426	115.731	0.30877	18.354	115.708	0.30520	60
70	32.798	117.306	0.32106	26.225	117.284	0.31590	21.843	117.262	0.31169	18.712	117.240	0.30812	70
80	33.422	118.850	0.32394	26.724	118.829	0.31879	22.259	118.808	0.31458	19.070	118.787	0.31101	80
90	34.045	120.409	0.32681	27.224	120.389	0.32166	22.676	120.369	0.31744	19.428	120.349	0.31388	90
100	34.668	121.982	0.32964	27.723	121.963	0.32449	23.092	121.944	0.32028	19.785	121.925	0.31672	100
110	35.291	123.571	0.33246	28.222	123.552	0.32731	23.508	123.534	0.32310	20.142	123.516	0.31954	110
120	35.914	125.174	0.33525	28.720	125.156	0.33010	23.925	125.139	0.32589	20.499	125.121	0.32233	120
130	36.537	126.791	0.33801	29.219	126.775	0.33287	24.340	126.758	0.32866	20.856	126.741	0.32510	130
140	37.160	128.423	0.34076	29.718	128.407	0.33561	24.756	128.391	0.33141	21.212	128.375	0.32785	140
150	37.782	130.070	0.34348	30.216	130.054	0.33834	25.172	130.039	0.33413	21.569	130.024	0.33057	150
160	38.404	131.730	0.34618	30.714	131.716	0.34104	25.587	131.701	0.33684	21.925	131.686	0.33328	160
170	39.027	133.405	0.34886	31.212	133.391	0.34372	26.003	133.377	0.33952	22.282	133.363	0.33596	170
180	39.649	135.094	0.35152	31.710	135.080	0.34638	26.418	135.067	0.34218	22.638	135.053	0.33863	180
190	40.271	136.797	0.35416	32.208	136.783	0.34903	26.833	136.770	0.34482	22.994	136.757	0.34127	190
200	40.893	138.513	0.35679	32.706	138.500	0.35165	27.249	138.488	0.34745	23.350	138.475	0.34389	200
210	—	—	—	33.204	140.231	0.35425	27.664	140.219	0.35005	23.706	140.207	0.34650	210
220	—	—	—	—	—	—	—	—	—	24.062	141.952	0.34909	220

TEMP. °F	4.0			4.5			5.0			5.5			TEMP. °F
	21.7772* (−85.42 °F)			20.7592* (−81.86 °F)			19.7411* (−78.62 °F)			18.7231* (−75.63 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(11.448)	(95.079)	(0.25578)	(10.259)	(95.493)	(0.25422)	(9.3011)	(95.871)	(0.25283)	(8.5116)	(96.217)	(0.25159)	
− 80	11.622	95.790	0.25767	10.313	95.739	0.25487	—	—	—	—	—	—	− 80
− 70	11.942	97.114	0.26111	10.599	97.066	0.25832	9.5237	97.018	0.25581	8.6442	96.970	0.25353	− 70
− 60	12.261	98.452	0.26450	10.883	98.407	0.26171	9.7810	98.362	0.25921	8.8790	98.317	0.25695	− 60
− 50	12.580	99.806	0.26784	11.168	99.764	0.26507	10.038	99.721	0.26257	9.1130	99.679	0.26031	− 50
− 40	12.898	101.174	0.27114	11.451	101.134	0.26837	10.293	101.094	0.26588	9.3464	101.054	0.26363	− 40
− 30	13.215	102.558	0.27440	11.734	102.520	0.27163	10.549	102.482	0.26915	9.5791	102.445	0.26690	− 30
− 20	13.532	103.956	0.27762	12.016	103.921	0.27486	10.803	103.885	0.27238	9.8113	103.849	0.27013	− 20
− 10	13.848	105.370	0.28080	12.298	105.336	0.27804	11.058	105.302	0.27557	10.043	105.269	0.27332	− 10
0	14.164	106.798	0.28394	12.579	106.766	0.28119	11.311	106.735	0.27872	10.274	106.703	0.27648	0
10	14.479	108.242	0.28705	12.860	108.212	0.28430	11.565	108.182	0.28183	10.505	108.151	0.27960	10
20	14.794	109.700	0.29012	13.141	109.672	0.28737	11.818	109.643	0.28491	10.735	109.615	0.28268	20
30	15.109	111.174	0.29316	13.421	111.147	0.29042	12.070	111.120	0.28796	10.965	111.093	0.28573	30
40	15.423	112.663	0.29617	13.701	112.637	0.29343	12.323	112.611	0.29097	11.195	112.586	0.28875	40
50	15.737	114.166	0.29915	13.980	114.142	0.29641	12.575	114.117	0.29396	11.425	114.093	0.29173	50
60	16.051	115.685	0.30210	14.260	115.661	0.29936	12.826	115.638	0.29691	11.654	115.615	0.29469	60
70	16.365	117.218	0.30502	14.539	117.196	0.30229	13.078	117.174	0.29984	11.883	117.151	0.29762	70
80	16.678	118.766	0.30792	14.818	118.745	0.30518	13.329	118.724	0.30274	12.112	118.702	0.30052	80
90	16.991	120.328	0.31078	15.096	120.308	0.30805	13.580	120.288	0.30561	12.340	120.268	0.30339	90
100	17.304	121.906	0.31363	15.375	121.886	0.31090	13.831	121.867	0.30845	12.568	121.848	0.30624	100
110	17.617	123.497	0.31645	15.653	123.479	0.31372	14.082	123.461	0.31128	12.797	123.442	0.30907	110
120	17.930	125.104	0.31924	15.931	125.086	0.31652	14.333	125.069	0.31407	13.025	125.051	0.31186	120
130	18.242	126.724	0.32201	16.209	126.707	0.31929	14.583	126.691	0.31685	13.253	126.674	0.31464	130
140	18.554	128.359	0.32476	16.487	128.343	0.32204	14.833	128.327	0.31960	13.480	128.311	0.31739	140
150	18.867	130.008	0.32749	16.765	129.993	0.32477	15.084	129.977	0.32233	13.708	129.962	0.32012	150
160	19.179	131.671	0.33020	17.043	131.656	0.32747	15.334	131.642	0.32504	13.935	131.627	0.32283	160
170	19.491	133.348	0.33288	17.320	133.334	0.33016	15.584	133.320	0.32772	14.163	133.306	0.32552	170
180	19.803	135.039	0.33554	17.598	135.026	0.33282	15.834	135.012	0.33039	14.390	134.998	0.32819	180
190	20.115	136.744	0.33819	17.875	136.731	0.33547	16.083	136.718	0.33304	14.617	136.705	0.33083	190
200	20.426	138.462	0.34081	18.152	138.450	0.33810	16.333	138.437	0.33566	14.845	138.425	0.33346	200
210	20.738	140.194	0.34342	18.430	140.182	0.34070	16.583	140.170	0.33827	15.072	140.158	0.33607	210
220	21.050	141.940	0.34601	18.707	141.928	0.34329	16.832	141.916	0.34086	15.299	141.905	0.33866	220
230	—	—	—	—	—	—	17.082	143.676	0.34343	15.526	143.665	0.34123	230
240	—	—	—	—	—	—	—	—	—	—	—	—	240

*Inches of mercury below one atmosphere

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	6.0			6.5			7.0			7.5			TEMP. °F
	17.7051* (−72.86 °F)			16.6871* (−70.26 °F)			15.6691* (−67.82 °F)			14.6511* (−65.52 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(7.8494)	(96.539)	(0.25046)	(7.2858)	(96.838)	(0.24943)	(6.8001)	(97.119)	(0.24848)	(6.3770)	(97.383)	(0.24760)	
−80	—	—	—	—	—	—	—	—	—	—	—	—	−80
−70	7.9113	96.922	0.25144	7.2911	96.873	0.24952	—	—	—	—	—	—	−70
−60	8.1273	98.272	0.25487	7.4912	98.226	0.25295	6.9459	98.181	0.25116	6.4734	98.135	0.24950	−60
−50	8.3425	99.636	0.25824	7.6906	99.593	0.25632	7.1317	99.550	0.25455	6.6473	99.507	0.25289	−50
−40	8.5571	101.014	0.26156	7.8892	100.974	0.25965	7.3168	100.934	0.25788	6.8206	100.893	0.25623	−40
−30	8.7710	102.407	0.26484	8.0873	102.369	0.26294	7.5012	102.331	0.26117	6.9932	102.293	0.25952	−30
−20	8.9844	103.814	0.26808	8.2848	103.778	0.26618	7.6851	103.742	0.26442	7.1653	103.706	0.26278	−20
−10	9.1973	105.235	0.27127	8.4818	105.201	0.26938	7.8684	105.167	0.26762	7.3368	105.134	0.26599	−10
0	9.4097	106.671	0.27443	8.6783	106.639	0.27254	8.0513	106.607	0.27079	7.5079	106.575	0.26916	0
10	9.6217	108.121	0.27755	8.8744	108.091	0.27567	8.2338	108.061	0.27392	7.6786	108.030	0.27229	10
20	9.8333	109.586	0.28064	9.0701	109.558	0.27876	8.4159	109.529	0.27701	7.8489	109.500	0.27538	20
30	10.045	111.066	0.28369	9.2655	111.039	0.28181	8.5976	111.011	0.28007	8.0188	110.984	0.27845	30
40	10.256	112.560	0.28671	9.4605	112.534	0.28484	8.7790	112.508	0.28310	8.1884	112.482	0.28148	40
50	10.466	114.068	0.28970	9.6553	114.044	0.28783	8.9602	114.019	0.28609	8.3577	113.995	0.28447	50
60	10.677	115.592	0.29266	9.8498	115.568	0.29079	9.1410	115.545	0.28906	8.5268	115.522	0.28744	60
70	10.887	117.129	0.29559	10.044	117.107	0.29372	9.3217	117.085	0.29199	8.6956	117.063	0.29038	70
80	11.097	118.681	0.29849	10.238	118.660	0.29663	9.5021	118.639	0.29490	8.8642	118.618	0.29328	80
90	11.307	120.248	0.30137	10.432	120.228	0.29950	9.6823	120.208	0.29778	9.0326	120.187	0.29617	90
100	11.516	121.829	0.30422	10.626	121.810	0.30236	9.8623	121.790	0.30063	9.2008	121.771	0.29902	100
110	11.725	123.424	0.30704	10.819	123.406	0.30518	10.042	123.387	0.30346	9.3688	123.369	0.30185	110
120	11.935	125.033	0.30984	11.012	125.016	0.30798	10.222	124.998	0.30626	9.5367	124.981	0.30466	120
130	12.144	126.657	0.31262	11.206	126.640	0.31076	10.401	126.623	0.30904	9.7044	126.607	0.30744	130
140	12.353	128.295	0.31538	11.399	128.279	0.31352	10.581	128.262	0.31180	9.8720	128.246	0.31019	140
150	12.562	129.946	0.31811	11.592	129.931	0.31625	10.760	129.915	0.31453	10.040	129.900	0.31293	150
160	12.770	131.612	0.32082	11.784	131.597	0.31896	10.939	131.582	0.31724	10.207	131.567	0.31564	160
170	12.979	133.291	0.32350	11.977	133.277	0.32165	11.118	133.263	0.31993	10.374	133.249	0.31833	170
180	13.187	134.985	0.32617	12.170	134.971	0.32432	11.297	134.957	0.32260	10.541	134.944	0.32100	180
190	13.396	136.691	0.32882	12.362	136.678	0.32697	11.476	136.665	0.32525	10.708	136.652	0.32365	190
200	13.604	138.412	0.33145	12.555	138.399	0.32960	11.655	138.386	0.32788	10.875	138.374	0.32628	200
210	13.812	140.146	0.33406	12.747	140.133	0.33221	11.834	140.121	0.33049	11.042	140.109	0.32889	210
220	14.021	141.893	0.33665	12.939	141.881	0.33480	12.012	141.869	0.33308	11.209	141.858	0.33148	220
230	14.229	143.653	0.33922	13.131	143.642	0.33737	12.191	143.631	0.33565	11.376	143.619	0.33406	230
240	—	—	—	—	—	—	12.369	145.405	0.33821	11.542	145.394	0.33661	240

TEMP. °F	8.0			8.5			9.0			9.5			TEMP. °F
	13.6331* (−63.34 °F)			12.6151* (−61.27 °F)			11.5971* (−59.29 °F)			10.5791* (−57.40 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(6.0050)	(97.633)	(0.24678)	(5.6753)	(97.869)	(0.24602)	(5.3810)	(98.095)	(0.24531)	(5.1166)	(98.310)	(0.24463)	
−60	6.0599	98.089	0.24793	5.6950	98.043	0.24646	—	—	—	—	—	—	−60
−50	6.2235	99.464	0.25133	5.8495	99.421	0.24986	5.5171	99.378	0.24847	5.2196	99.334	0.24716	−50
−40	6.3864	100.853	0.25468	6.0034	100.812	0.25322	5.6628	100.771	0.25183	5.3581	100.731	0.25052	−40
−30	6.5488	102.255	0.25798	6.1566	102.216	0.25652	5.8079	102.178	0.25515	5.4960	102.140	0.25384	−30
−20	6.7105	103.670	0.26124	6.3092	103.634	0.25978	5.9525	103.598	0.25841	5.6333	103.562	0.25711	−20
−10	6.8717	105.100	0.26445	6.4613	105.066	0.26300	6.0965	105.031	0.26164	5.7700	104.997	0.26034	−10
0	7.0325	106.543	0.26762	6.6129	106.511	0.26618	6.2400	106.478	0.26482	5.9063	106.446	0.26353	0
10	7.1928	108.000	0.27076	6.7641	107.970	0.26932	6.3831	107.939	0.26796	6.0422	107.909	0.26667	10
20	7.3527	109.471	0.27386	6.9150	109.443	0.27242	6.5258	109.414	0.27107	6.1777	109.385	0.26978	20
30	7.5123	110.957	0.27692	7.0655	110.930	0.27549	6.6682	110.902	0.27414	6.3128	110.875	0.27286	30
40	7.6716	112.456	0.27996	7.2156	112.431	0.27853	6.8103	112.405	0.27718	6.4476	112.379	0.27590	40
50	7.8306	113.970	0.28296	7.3655	113.946	0.28153	6.9520	113.921	0.28018	6.5821	113.896	0.27891	50
60	7.9893	115.498	0.28592	7.5151	115.475	0.28450	7.0935	115.451	0.28316	6.7164	115.428	0.28188	60
70	8.1478	117.040	0.28886	7.6644	117.018	0.28744	7.2348	116.996	0.28610	6.8503	116.973	0.28483	70
80	8.3061	118.597	0.29177	7.8136	118.575	0.29035	7.3758	118.554	0.28901	6.9841	118.533	0.28774	80
90	8.4641	120.167	0.29466	7.9625	120.147	0.29324	7.5166	120.127	0.29190	7.1177	120.106	0.29063	90
100	8.6220	121.752	0.29751	8.1113	121.732	0.29610	7.6573	121.713	0.29476	7.2511	121.694	0.29349	100
110	8.7797	123.350	0.30035	8.2598	123.332	0.29893	7.7977	123.313	0.29759	7.3843	123.295	0.29633	110
120	8.9372	124.963	0.30315	8.4082	124.945	0.30174	7.9380	124.928	0.30040	7.5173	124.910	0.29914	120
130	9.0946	126.590	0.30593	8.5565	126.573	0.30452	8.0782	126.556	0.30319	7.6502	126.539	0.30193	130
140	9.2519	128.230	0.30869	8.7046	128.214	0.30728	8.2182	128.198	0.30595	7.7830	128.182	0.30469	140
150	9.4090	129.885	0.31143	8.8526	129.869	0.31002	8.3581	129.854	0.30869	7.9156	129.838	0.30743	150
160	9.5660	131.553	0.31414	9.0005	131.538	0.31273	8.4979	131.523	0.31140	8.0482	131.508	0.31014	160
170	9.7229	133.234	0.31683	9.1483	133.220	0.31543	8.6376	133.206	0.31410	8.1806	133.192	0.31284	170
180	9.8797	134.930	0.31951	9.2960	134.916	0.31810	8.7771	134.902	0.31677	8.3129	134.889	0.31551	180
190	10.036	136.639	0.32216	9.4436	136.626	0.32075	8.9166	136.612	0.31942	8.4451	136.599	0.31817	190
200	10.193	138.361	0.32479	9.5911	138.348	0.32338	9.0560	138.336	0.32205	8.5773	138.323	0.32080	200
210	10.350	140.097	0.32740	9.7385	140.085	0.32599	9.1953	140.072	0.32467	8.7093	140.060	0.32341	210
220	10.506	141.846	0.32999	9.8859	141.834	0.32859	9.3346	141.822	0.32726	8.8413	141.810	0.32601	220
230	10.663	143.608	0.33256	10.033	143.597	0.33116	9.4738	143.585	0.32984	8.9732	143.574	0.32858	230
240	10.819	145.383	0.33512	10.180	145.372	0.33372	9.6129	145.361	0.33239	9.1051	145.350	0.33114	240
250	—	—	—	—	—	—	9.7519	147.150	0.33493	9.2369	147.139	0.33368	250

*Inches of mercury below one atmosphere

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	10.0			10.5			11.0			11.5			TEMP. °F
	9.561* (−55.58 °F)			8.543* (−53.84 °F)			7.525* (−52.17 °F)			6.507* (−50.55 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(4.8778)	(98.515)	(0.24399)	(4.6609)	(98.712)	(0.24339)	(4.4630)	(98.901)	(0.24282)	(4.2818)	(99.083)	(0.24227)	
−50	4.9518	99.291	0.24590	4.7096	99.247	0.24470	4.4893	99.204	0.24356	4.2882	99.160	0.24246	−50
−40	5.0838	100.690	0.24927	4.8357	100.649	0.24808	4.6101	100.608	0.24695	4.4041	100.567	0.24585	−40
−30	5.2152	102.101	0.25260	4.9612	102.063	0.25141	4.7302	102.024	0.25028	4.5193	101.985	0.24919	−30
−20	5.3460	103.526	0.25588	5.0860	103.489	0.25470	4.8497	103.453	0.25357	4.6340	103.416	0.25249	−20
−10	5.4762	104.963	0.25911	5.2104	104.929	0.25793	4.9687	104.895	0.25681	4.7481	104.860	0.25573	−10
0	5.6060	106.414	0.26230	5.3343	106.382	0.26113	5.0872	106.349	0.26001	4.8617	106.317	0.25894	0
10	5.7353	107.878	0.26545	5.4577	107.848	0.26428	5.2053	107.817	0.26317	4.9749	107.786	0.26210	10
20	5.8643	109.356	0.26856	5.5808	109.327	0.26740	5.3230	109.298	0.26629	5.0877	109.269	0.26522	20
30	5.9929	110.847	0.27164	5.7035	110.820	0.27048	5.4404	110.792	0.26937	5.2001	110.765	0.26831	30
40	6.1212	112.353	0.27468	5.8259	112.327	0.27353	5.5574	112.300	0.27242	5.3122	112.274	0.27136	40
50	6.2492	113.872	0.27769	5.9479	113.847	0.27654	5.6741	113.822	0.27543	5.4240	113.797	0.27438	50
60	6.3769	115.404	0.28067	6.0697	115.381	0.27952	5.7905	115.357	0.27842	5.5356	115.334	0.27736	60
70	6.5044	116.951	0.28362	6.1913	116.929	0.28247	5.9067	116.906	0.28137	5.6469	116.884	0.28032	70
80	6.6316	118.512	0.28654	6.3126	118.490	0.28539	6.0227	118.469	0.28429	5.7579	118.448	0.28324	80
90	6.7586	120.086	0.28943	6.4338	120.066	0.28828	6.1385	120.045	0.28719	5.8688	120.025	0.28614	90
100	6.8855	121.674	0.29229	6.5547	121.655	0.29115	6.2540	121.636	0.29005	5.9795	121.616	0.28901	100
110	7.0122	123.276	0.29513	6.6755	126.258	0.29399	6.3694	123.239	0.29289	6.0900	123.221	0.29185	110
120	7.1387	124.892	0.29794	6.7961	124.875	0.29680	6.4847	124.857	0.29571	6.2003	124.839	0.29467	120
130	7.2651	126.522	0.30073	6.9166	126.505	0.29959	6.5998	126.488	0.29850	6.3105	126.471	0.29746	130
140	7.3913	128.165	0.30349	7.0369	128.149	0.30235	6.7147	128.133	0.30126	6.4206	128.117	0.30022	140
150	7.5174	129.822	0.30623	7.1571	129.807	0.30509	6.8296	129.791	0.30401	6.5305	129.776	0.30297	150
160	7.6434	131.493	0.30895	7.2772	131.478	0.30781	6.9443	131.463	0.30673	6.6403	131.448	0.30569	160
170	7.7693	133.177	0.31165	7.3972	133.163	0.31051	7.0589	133.149	0.30942	6.7500	133.134	0.30839	170
180	7.8951	134.875	0.31432	7.5170	134.861	0.31318	7.1734	134.847	0.31210	6.8596	134.834	0.31106	180
190	8.0208	136.586	0.31697	7.6368	136.573	0.31584	7.2878	136.560	0.31476	6.9691	136.546	0.31372	190
200	8.1464	138.310	0.31961	7.7565	138.298	0.31847	7.4021	138.285	0.31739	7.0785	138.272	0.31636	200
210	8.2719	140.048	0.32222	7.8762	140.036	0.32109	7.5164	140.023	0.32001	7.1879	140.011	0.31897	210
220	8.3974	141.799	0.32482	7.9957	141.787	0.32368	7.6306	141.775	0.32260	7.2972	141.763	0.32157	220
230	8.5228	143.562	0.32739	8.1152	143.551	0.32626	7.7447	143.540	0.32518	7.4064	143.528	0.32415	230
240	8.6481	145.339	0.32995	8.2346	145.328	0.32882	7.8587	145.317	0.32774	7.5155	145.306	0.32671	240
250	8.7734	147.129	0.33249	8.3540	147.118	0.33136	7.9727	147.107	0.33028	7.6246	147.097	0.32925	250

TEMP. °F	12.0			13.0			14.0			14.696			TEMP. °F
	5.489* (−48.99 °F)			2.435* (−46.01 °F)			1.417* (−43.21 °F)			0.000 (−41.35 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(4.1151)	(99.258)	(0.24175)	(3.8190)	(99.591)	(0.24078)	(3.5636)	(99.902)	(0.23989)	(3.4058)	(100.108)	(0.23931)	
−40	4.2152	100.525	0.24481	3.8811	100.442	0.24283	3.5946	100.359	0.24098	3.4183	100.301	0.23977	−40
−30	4.3260	101.947	0.24815	3.9839	101.869	0.24618	3.6907	101.790	0.24435	3.5102	101.736	0.24314	−30
−20	4.4362	103.380	0.25145	4.0862	103.307	0.24949	3.7862	103.233	0.24767	3.6014	103.182	0.24647	−20
−10	4.5458	104.826	0.25470	4.1879	104.757	0.25275	3.8811	104.687	0.25094	3.6922	104.639	0.24975	−10
0	4.6549	106.284	0.25791	4.2891	106.219	0.25597	3.9755	106.154	0.25416	3.7824	106.108	0.25298	0
10	4.7636	107.755	0.26108	4.3899	107.694	0.25914	4.0695	107.632	0.25735	3.8722	107.589	0.25617	10
20	4.8719	109.240	0.26420	4.4902	109.182	0.26228	4.1630	109.123	0.26049	3.9616	109.082	0.25931	20
30	4.9799	110.737	0.26729	4.5902	110.682	0.26537	4.2562	110.627	0.26359	4.0506	110.588	0.26242	30
40	5.0875	112.248	0.27035	4.6899	112.196	0.26843	4.3491	112.143	0.26666	4.1393	112.107	0.26549	40
50	5.1948	113.773	0.27337	4.7893	113.723	0.27146	4.4417	113.673	0.26969	4.2276	113.638	0.26852	50
60	5.3019	115.310	0.27635	4.8884	115.263	0.27445	4.5340	115.216	0.27268	4.3157	115.183	0.27152	60
70	5.4087	116.862	0.27931	4.9872	116.817	0.27741	4.6260	116.772	0.27565	4.4036	116.740	0.27449	70
80	5.5153	118.426	0.28224	5.0859	118.384	0.28034	4.7178	118.341	0.27858	4.4912	118.311	0.27743	80
90	5.6216	120.005	0.28514	5.1843	119.964	0.28324	4.8094	119.923	0.28149	4.5786	119.895	0.28034	90
100	5.7278	121.597	0.28801	5.2825	121.558	0.28612	4.9009	121.519	0.28437	4.6659	121.492	0.28322	100
110	5.8338	123.202	0.29085	5.3806	123.165	0.28896	4.9921	123.128	0.28722	4.7529	123.102	0.28607	110
120	5.9396	124.822	0.29367	5.4785	124.786	0.29178	5.0832	124.751	0.29004	4.8398	124.726	0.28889	120
130	6.0453	126.454	0.29646	5.5762	126.420	0.29458	5.1741	126.386	0.29284	4.9265	126.363	0.29169	130
140	6.1509	128.101	0.29923	5.6738	128.068	0.29735	5.2649	128.036	0.29561	5.0131	128.013	0.29447	140
150	6.2563	129.760	0.30197	5.7713	129.729	0.30010	5.3556	129.698	0.29836	5.0996	129.676	0.29722	150
160	6.3617	131.433	0.30469	5.8687	131.404	0.30282	5.4461	131.374	0.30109	5.1859	131.353	0.29995	160
170	6.4669	133.120	0.30739	5.9659	133.091	0.30552	5.5365	133.063	0.30379	5.2722	133.043	0.30265	170
180	6.5720	134.820	0.31007	6.0631	134.792	0.30820	5.6269	134.765	0.30647	5.3583	134.746	0.30534	180
190	6.6770	136.533	0.31273	6.1601	136.507	0.31086	5.7171	136.480	0.30913	5.4444	136.462	0.30800	190
200	6.7819	138.259	0.31537	6.2571	138.234	0.31350	5.8073	138.208	0.31177	5.5303	138.191	0.31064	200
210	6.8868	139.999	0.31798	6.3540	139.974	0.31612	5.8974	139.950	0.31439	5.6162	139.933	0.31326	210
220	6.9916	141.751	0.32058	6.4508	141.728	0.31872	5.9874	141.704	0.31699	5.7020	141.688	0.31586	220
230	7.0963	143.517	0.32316	6.5476	143.494	0.32130	6.0773	143.471	0.31957	5.7878	143.455	0.31844	230
240	7.2009	145.295	0.32572	6.6443	145.273	0.32386	6.1672	145.251	0.32214	5.8735	145.236	0.32101	240
250	7.3055	147.086	0.32826	6.7409	147.065	0.32640	6.2570	147.044	0.32468	5.9591	147.029	0.32355	250
260	7.4100	148.890	0.33079	6.8375	148.869	0.32893	6.3468	148.849	0.32720	6.0446	148.835	0.32608	260

*Inches of mercury below one atmosphere

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	15			16			17			18			TEMP. °F
	0.304 (−40.57 °F)			1.304 (−38.06 °F)			2.304 (−35.67 °F)			3.304 (−33.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(3.3412)	(100.194)	(0.23906)	(3.1456)	(100.471)	(0.23829)	(2.9722)	(100.732)	(0.23757)	(2.8174)	(100.981)	(0.23689)	
−40	3.3463	100.276	0.23925	—	—	—	—	—	—	—	—	—	−40
−30	3.4365	101.712	0.24263	3.2141	101.633	0.24102	3.0178	101.554	0.23949	2.8433	101.474	0.23805	−30
−20	3.5261	103.159	0.24596	3.2986	103.085	0.24436	3.0977	103.011	0.24285	2.9192	102.936	0.24141	−20
−10	3.6152	104.618	0.24924	3.3824	104.548	0.24765	3.1771	104.478	0.24615	2.9945	104.407	0.24472	−10
0	3.7037	106.088	0.25248	3.4658	106.022	0.25089	3.2559	105.956	0.24940	3.0694	105.890	0.24798	0
10	3.7918	107.570	0.25567	3.5488	107.508	0.25409	3.3343	107.446	0.25260	3.1437	107.383	0.25119	10
20	3.8794	109.065	0.25882	3.6313	109.006	0.25725	3.4123	108.947	0.25576	3.2177	108.888	0.25436	20
30	3.9667	110.571	0.26192	3.7134	110.516	0.26036	3.4899	110.460	0.25889	3.2912	110.404	0.25749	30
40	4.0537	112.091	0.26500	3.7953	112.038	0.26344	3.5672	111.985	0.26197	3.3644	111.932	0.26058	40
50	4.1404	113.623	0.26803	3.8768	113.573	0.26648	3.6441	113.523	0.26502	3.4374	113.473	0.26363	50
60	4.2268	115.168	0.27103	3.9580	115.121	0.26949	3.7208	115.073	0.26803	3.5100	115.026	0.26665	60
70	4.3129	116.727	0.27400	4.0390	116.681	0.27246	3.7973	116.636	0.27101	3.5824	116.591	0.26963	70
80	4.3989	118.298	0.27694	4.1197	118.255	0.27540	3.8735	118.212	0.27395	3.6545	118.169	0.27258	80
90	4.4846	119.882	0.27985	4.2003	119.841	0.27832	3.9494	119.800	0.27687	3.7265	119.759	0.27551	90
100	4.5701	121.480	0.28273	4.2806	121.441	0.28120	4.0252	121.402	0.27976	3.7982	121.363	0.27840	100
110	4.6554	123.091	0.28559	4.3608	123.054	0.28406	4.1008	123.016	0.28262	3.8698	122.979	0.28126	110
120	4.7406	124.715	0.28841	4.4408	124.679	0.28689	4.1763	124.644	0.28545	3.9412	124.608	0.28409	120
130	4.8256	126.352	0.29121	4.5207	126.318	0.28969	4.2516	126.284	0.28826	4.0124	126.250	0.28690	130
140	4.9105	128.003	0.29399	4.6004	127.970	0.29247	4.3267	127.938	0.29104	4.0835	127.905	0.28968	140
150	4.9952	129.667	0.29674	4.6800	129.636	0.29522	4.4018	129.604	0.29379	4.1545	129.573	0.29244	150
160	5.0799	131.344	0.29947	4.7594	131.314	0.29795	4.4767	131.284	0.29652	4.2254	131.254	0.29518	160
170	5.1644	133.034	0.30217	4.8388	133.005	0.30066	4.5515	132.976	0.29923	4.2961	132.948	0.29789	170
180	5.2488	134.737	0.30486	4.9181	134.710	0.30334	4.6262	134.682	0.30192	4.3668	134.654	0.30058	180
190	5.3332	136.454	0.30752	4.9972	136.427	0.30601	4.7008	136.400	0.30459	4.4373	136.374	0.30324	190
200	5.4174	138.183	0.31016	5.0763	138.157	0.30865	4.7753	138.132	0.30723	4.5078	138.106	0.30589	200
210	5.5016	139.925	0.31278	5.1553	139.901	0.31127	4.8498	139.876	0.30986	4.5782	139.851	0.30852	210
220	5.5857	141.680	0.31538	5.2343	141.657	0.31388	4.9241	141.633	0.31246	4.6485	141.609	0.31112	220
230	5.6697	143.448	0.31797	5.3131	143.425	0.31646	4.9984	143.403	0.31504	4.7187	143.380	0.31371	230
240	5.7537	145.229	0.32053	5.3919	145.207	0.31902	5.0727	145.185	0.31761	4.7889	145.163	0.31627	240
250	5.8376	147.022	0.32307	5.4706	147.001	0.32157	5.1469	146.980	0.32016	4.8590	146.958	0.31882	250
260	5.9215	148.828	0.32560	5.5493	148.808	0.32410	5.2210	148.787	0.32269	4.9291	148.767	0.32135	260
270	—	—	—	5.6280	150.627	0.32661	5.2950	150.607	0.32520	4.9991	150.587	0.32386	270

TEMP. °F	19			20			21			22			TEMP. °F
	4.304 (−31.21 °F)			5.304 (−29.12 °F)			6.304 (−27.10 °F)			7.304 (−25.16 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(2.6784)	(101.218)	(0.23626)	(2.5527)	(101.444)	(0.23566)	(2.4386)	(101.660)	(0.23509)	(2.3345)	(101.868)	(0.23455)	
−30	2.6871	101.394	0.23667	—	—	—	—	—	—	—	—	—	−30
−20	2.7595	102.861	0.24004	2.6156	102.785	0.23874	2.4855	102.709	0.23750	2.3672	102.633	0.23630	−20
−10	2.8312	104.337	0.24336	2.6841	104.266	0.24207	2.5511	104.195	0.24084	2.4301	104.123	0.23965	−10
0	2.9024	105.823	0.24663	2.7521	105.756	0.24535	2.6161	105.689	0.24412	2.4925	105.622	0.24295	0
10	2.9731	107.320	0.24986	2.8196	107.257	0.24858	2.6807	107.194	0.24736	2.5544	107.131	0.24620	10
20	3.0435	108.828	0.25303	2.8867	108.769	0.25177	2.7448	108.709	0.25056	2.6159	108.650	0.24940	20
30	3.1134	110.348	0.25617	2.9534	110.292	0.25491	2.8086	110.235	0.25370	2.6770	110.179	0.25255	30
40	3.1830	111.879	0.25926	3.0198	111.826	0.25801	2.8720	111.773	0.25681	2.7377	111.719	0.25567	40
50	3.2523	113.422	0.26232	3.0858	113.372	0.26107	2.9351	113.321	0.25988	2.7981	113.271	0.25874	50
60	3.3214	114.978	0.26534	3.1516	114.930	0.26410	2.9979	114.882	0.26291	2.8583	114.834	0.26178	60
70	3.3901	116.545	0.26833	3.2171	116.500	0.26709	3.0605	116.454	0.26591	2.9182	116.409	0.26478	70
80	3.4586	118.126	0.27129	3.2823	118.082	0.27005	3.1228	118.039	0.26887	2.9778	117.995	0.26775	80
90	3.5270	119.718	0.27421	3.3474	119.677	0.27298	3.1849	119.636	0.27180	3.0372	119.594	0.27068	90
100	3.5951	121.323	0.27710	3.4122	121.284	0.27588	3.2468	121.245	0.27471	3.0964	121.205	0.27359	100
110	3.6630	122.941	0.27997	3.4769	122.904	0.27874	3.3086	122.866	0.27758	3.1555	122.829	0.27646	110
120	3.7308	124.572	0.28281	3.5414	124.536	0.28159	3.3701	124.501	0.28042	3.2144	124.465	0.27931	120
130	3.7984	126.216	0.28562	3.6058	126.182	0.28440	3.4315	126.147	0.28324	3.2731	126.113	0.28213	130
140	3.8659	127.872	0.28840	3.6700	127.840	0.28719	3.4928	127.807	0.28603	3.3317	127.774	0.28492	140
150	3.9332	129.542	0.29116	3.7341	129.510	0.28995	3.5539	129.479	0.28879	3.3901	129.447	0.28769	150
160	4.0005	131.224	0.29390	3.7981	131.194	0.29269	3.6150	131.164	0.29153	3.4485	131.133	0.29043	160
170	4.0676	132.919	0.29661	3.8619	132.890	0.29540	3.6759	132.861	0.29425	3.5067	132.832	0.29315	170
180	4.1346	134.627	0.29931	3.9257	134.599	0.29810	3.7367	134.571	0.29695	3.5648	134.543	0.29585	180
190	4.2015	136.347	0.30197	3.9894	136.321	0.30077	3.7974	136.294	0.29962	3.6228	136.267	0.29852	190
200	4.2684	138.081	0.30462	4.0529	138.055	0.30342	3.8580	138.029	0.30227	3.6808	138.004	0.30117	200
210	4.3352	139.827	0.30725	4.1164	139.802	0.30604	3.9185	139.777	0.30490	3.7387	139.753	0.30380	210
220	4.4018	141.585	0.30986	4.1799	141.562	0.30865	3.9790	141.538	0.30751	3.7964	141.514	0.30641	220
230	4.4685	143.357	0.31244	4.2432	143.334	0.31124	4.0394	143.311	0.31010	3.8542	143.288	0.30901	230
240	4.5350	145.141	0.31501	4.3065	145.119	0.31381	4.0998	145.096	0.31267	3.9118	145.074	0.31158	240
250	4.6015	146.937	0.31756	4.3697	146.916	0.31636	4.1600	146.894	0.31522	3.9694	146.873	0.31413	250
260	4.6679	148.746	0.32009	4.4329	148.725	0.31889	4.2202	148.705	0.31775	4.0269	148.684	0.31666	260
270	4.7343	150.567	0.32260	4.4960	150.547	0.32141	4.2804	150.527	0.32027	4.0844	150.507	0.31918	270
280	—	—	—	4.5591	152.381	0.32390	4.3405	152.362	0.32276	4.1418	152.342	0.32168	280

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	23			24			25			26			TEMP. °F
	8.304 (−23.29 °F)			9.304 (−21.48 °F)			10.304 (−19.73 °F)			11.304 (−18.03 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(2.2391)	(102.067)	(0.23404)	(2.1513)	(102.259)	(0.23355)	(2.0704)	(102.444)	(0.23308)	(1.9954)	(102.622)	(0.23263)	
−20	2.2591	102.557	0.23516	2.1600	102.480	0.23405	—	—	—	—	—	—	−20
−10	2.3196	104.052	0.23852	2.2183	103.980	0.23742	2.1251	103.907	0.23637	2.0391	103.835	0.23535	−10
0	2.3796	105.555	0.24182	2.2761	105.487	0.24074	2.1808	105.419	0.23970	2.0929	105.351	0.23869	0
10	2.4391	107.067	0.24508	2.3333	107.003	0.24400	2.2360	106.939	0.24297	2.1462	106.875	0.24197	10
20	2.4981	108.590	0.24829	2.3901	108.529	0.24722	2.2908	108.469	0.24619	2.1991	108.409	0.24520	20
30	2.5568	110.122	0.25145	2.4466	110.065	0.25039	2.3452	110.008	0.24937	2.2516	109.951	0.24838	30
40	2.6151	111.666	0.25457	2.5026	111.612	0.25351	2.3992	111.558	0.25250	2.3037	111.504	0.25152	40
50	2.6730	113.220	0.25765	2.5584	113.169	0.25660	2.4529	113.118	0.25559	2.3555	113.067	0.25462	50
60	2.7307	114.786	0.26069	2.6138	114.737	0.25965	2.5063	114.689	0.25864	2.4070	114.640	0.25767	60
70	2.7882	116.363	0.26370	2.6690	116.317	0.26266	2.5594	116.271	0.26166	2.4582	116.225	0.26069	70
80	2.8454	117.952	0.26667	2.7240	117.908	0.26563	2.6123	117.865	0.26464	2.5092	117.821	0.26368	80
90	2.9024	119.553	0.26961	2.7787	119.511	0.26858	2.6650	119.470	0.26758	2.5600	119.428	0.26663	90
100	2.9591	121.166	0.27252	2.8333	121.126	0.27149	2.7175	121.087	0.27050	2.6106	121.047	0.26955	100
110	3.0157	122.791	0.27539	2.8876	122.753	0.27437	2.7698	122.716	0.27338	2.6610	122.678	0.27244	110
120	3.0722	124.429	0.27824	2.9418	124.393	0.27722	2.8219	124.357	0.27624	2.7112	124.321	0.27529	120
130	3.1284	126.079	0.28106	2.9958	126.044	0.28005	2.8738	126.010	0.27907	2.7612	125.975	0.27812	130
140	3.1846	127.741	0.28386	3.0497	127.708	0.28284	2.9257	127.675	0.28187	2.8112	127.642	0.28093	140
150	3.2406	129.416	0.28663	3.1035	129.384	0.28562	2.9774	129.353	0.28464	2.8609	129.321	0.28370	150
160	3.2965	131.103	0.28938	3.1571	131.073	0.28836	3.0289	131.043	0.28739	2.9106	131.013	0.28646	160
170	3.3522	132.803	0.29210	3.2107	132.774	0.29109	3.0804	132.745	0.29012	2.9602	132.716	0.28918	170
180	3.4079	134.516	0.29479	3.2641	134.488	0.29379	3.1318	134.460	0.29282	3.0096	134.432	0.29189	180
190	3.4635	136.240	0.29747	3.3174	136.214	0.29646	3.1830	136.187	0.29550	3.0590	136.160	0.29457	190
200	3.5190	137.978	0.30012	3.3707	137.952	0.29912	3.2342	137.926	0.29815	3.1082	137.901	0.29723	200
210	3.5744	139.728	0.30276	3.4238	139.703	0.30175	3.2853	139.678	0.30079	3.1574	139.654	0.29986	210
220	3.6297	141.490	0.30537	3.4769	141.466	0.30437	3.3363	141.443	0.30340	3.2065	141.419	0.30248	220
230	3.6850	143.265	0.30796	3.5299	143.242	0.30696	3.3873	143.219	0.30600	3.2556	143.196	0.30507	230
240	3.7402	145.052	0.31053	3.5829	145.030	0.30953	3.4382	145.008	0.30857	3.3046	144.986	0.30765	240
250	3.7953	146.852	0.31309	3.6358	146.830	0.31209	3.4890	146.809	0.31113	3.3535	146.787	0.31021	250
260	3.8504	148.663	0.31562	3.6886	148.643	0.31462	3.5397	148.622	0.31367	3.4023	148.601	0.31275	260
270	3.9054	150.487	0.31814	3.7414	150.467	0.31714	3.5905	150.447	0.31619	3.4511	150.427	0.31526	270
280	3.9604	152.323	0.32064	3.7941	152.304	0.31964	3.6411	152.284	0.31869	3.4999	152.265	0.31777	280
290	—	—	—	—	—	—	3.6917	154.134	0.32117	3.5486	154.115	0.32025	290

TEMP. °F	27			28			29			30			TEMP. °F
	12.304 (−16.39 °F)			13.304 (−14.79 °F)			14.304 (−13.23 °F)			15.304 (−11.71 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.9258)	(102.794)	(0.23220)	(1.8610)	(102.961)	(0.23179)	(1.8005)	(103.123)	(0.23139)	(1.7439)	(103.279)	(0.23101)	
−10	1.9594	103.762	0.23437	1.8854	103.689	0.23341	1.8164	103.615	0.23249	1.7521	103.541	0.23159	−10
0	2.0115	105.282	0.23771	1.9358	105.214	0.23677	1.8654	105.145	0.23585	1.7997	105.076	0.23497	0
10	2.0630	106.811	0.24100	1.9858	106.746	0.24007	1.9139	106.681	0.23916	1.8467	106.616	0.23828	10
20	2.1142	108.348	0.24424	2.0353	108.287	0.24331	1.9619	108.226	0.24241	1.8933	108.165	0.24154	20
30	2.1649	109.894	0.24743	2.0844	109.836	0.24651	2.0094	109.779	0.24562	1.9395	109.721	0.24475	30
40	2.2153	111.450	0.25057	2.1331	111.395	0.24966	2.0567	111.341	0.24878	1.9853	111.286	0.24792	40
50	2.2653	113.015	0.25368	2.1815	112.964	0.25277	2.1036	112.912	0.25189	2.0308	112.861	0.25104	50
60	2.3150	114.592	0.25674	2.2297	114.543	0.25584	2.1502	114.494	0.25496	2.0760	114.445	0.25412	60
70	2.3645	116.179	0.25976	2.2775	116.133	0.25887	2.1965	116.086	0.25800	2.1209	116.040	0.25716	70
80	2.4138	117.777	0.26275	2.3251	117.733	0.26186	2.2426	117.689	0.26099	2.1655	117.645	0.26016	80
90	2.4628	119.386	0.26571	2.3725	119.345	0.26482	2.2884	119.303	0.26396	2.2100	119.261	0.26312	90
100	2.5116	121.007	0.26863	2.4197	120.968	0.26774	2.3341	120.928	0.26689	2.2542	120.888	0.26606	100
110	2.5602	122.640	0.27152	2.4666	122.602	0.27064	2.3795	122.564	0.26978	2.2982	122.526	0.26896	110
120	2.6087	124.284	0.27438	2.5135	124.248	0.27350	2.4248	124.212	0.27265	2.3421	124.176	0.27183	120
130	2.6570	125.941	0.27722	2.5601	125.906	0.27634	2.4700	125.871	0.27549	2.3858	125.837	0.27467	130
140	2.7051	127.609	0.28002	2.6066	127.576	0.27915	2.5150	127.543	0.27830	2.4294	127.510	0.27748	140
150	2.7531	129.290	0.28280	2.6530	129.258	0.28193	2.5598	129.226	0.28109	2.4728	129.194	0.28027	150
160	2.8010	130.982	0.28555	2.6993	130.952	0.28468	2.6046	130.921	0.28384	2.5162	130.891	0.28303	160
170	2.8488	132.687	0.28828	2.7454	132.658	0.28741	2.6492	132.629	0.28658	2.5594	132.600	0.28576	170
180	2.8965	134.404	0.29099	2.7915	134.376	0.29012	2.6937	134.348	0.28929	2.6024	134.320	0.28848	180
190	2.9441	136.133	0.29367	2.8374	136.107	0.29281	2.7381	136.080	0.29197	2.6455	136.053	0.29116	190
200	2.9916	137.875	0.29633	2.8833	137.849	0.29547	2.7825	137.823	0.29463	2.6884	137.797	0.29383	200
210	3.0390	139.629	0.29897	2.9291	139.604	0.29811	2.8267	139.579	0.29728	2.7312	139.554	0.29647	210
220	3.0864	141.395	0.30159	2.9748	141.371	0.30073	2.8709	141.347	0.29990	2.7739	141.323	0.29909	220
230	3.1337	143.173	0.30418	3.0204	143.150	0.30333	2.9150	143.127	0.30250	2.8166	143.104	0.30169	230
240	3.1809	144.963	0.30676	3.0660	144.941	0.30590	2.9591	144.919	0.30508	2.8592	144.897	0.30427	240
250	3.2280	146.766	0.30932	3.1115	146.744	0.30846	3.0030	146.723	0.30764	2.9018	146.701	0.30684	250
260	3.2751	148.580	0.31186	3.1570	148.560	0.31100	3.0470	148.539	0.31018	2.9443	148.518	0.30938	260
270	3.3221	150.407	0.31438	3.2024	150.387	0.31352	3.0908	150.367	0.31270	2.9867	150.347	0.31190	270
280	3.3691	152.246	0.31688	3.2477	152.226	0.31603	3.1347	152.207	0.31520	3.0291	152.187	0.31441	280
290	3.4161	154.096	0.31937	3.2930	154.077	0.31851	3.1784	154.058	0.31769	3.0715	154.040	0.31689	290

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	31			32			33			34			TEMP. °F
	16.304 (—10.24 °F)			17.304 (—8.80 °F)			18.304 (—7.39 °F)			19.304 (—6.02 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.6908)	(103.431)	(0.23064)	(1.6409)	(103.579)	(0.23028)	(1.5939)	(103.722)	(0.22994)	(1.5495)	(103.862)	(0.22960)	
—10	1.6919	103.467	0.23072	—	—	—	—	—	—	—	—	—	—10
0	1.7381	105.006	0.23410	1.6805	104.936	0.23326	1.6263	104.866	0.23244	1.5752	104.796	0.23165	0
10	1.7839	106.551	0.23743	1.7250	106.486	0.23660	1.6696	106.420	0.23579	1.6175	106.354	0.23500	10
20	1.8292	108.103	0.24070	1.7690	108.041	0.23987	1.7125	107.980	0.23907	1.6593	107.918	0.23829	20
30	1.8740	109.663	0.24392	1.8127	109.605	0.24310	1.7550	109.547	0.24231	1.7007	109.488	0.24153	30
40	1.9185	111.232	0.24709	1.8559	111.177	0.24628	1.7971	111.122	0.24549	1.7417	111.066	0.24473	40
50	1.9627	112.809	0.25021	1.8988	112.757	0.24941	1.8389	112.705	0.24863	1.7824	112.653	0.24787	50
60	2.0065	114.396	0.25330	1.9415	114.347	0.25250	1.8803	114.298	0.25172	1.8228	114.248	0.25097	60
70	2.0501	115.993	0.25634	1.9838	115.947	0.25555	1.9215	115.900	0.25478	1.8628	115.853	0.25403	70
80	2.0935	117.601	0.25935	2.0259	117.556	0.25856	1.9624	117.512	0.25779	1.9027	117.468	0.25705	80
90	2.1366	119.219	0.26232	2.0678	119.177	0.26153	2.0031	119.135	0.26077	1.9423	119.092	0.26003	90
100	2.1795	120.848	0.26525	2.1094	120.808	0.26447	2.0436	120.768	0.26371	1.9816	120.727	0.26298	100
110	2.2222	122.488	0.26816	2.1509	122.450	0.26738	2.0839	122.411	0.26663	2.0208	122.373	0.26589	110
120	2.2647	124.139	0.27103	2.1922	124.103	0.27026	2.1240	124.066	0.26951	2.0599	124.030	0.26877	120
130	2.3071	125.802	0.27388	2.2333	125.767	0.27310	2.1640	125.732	0.27235	2.0987	125.698	0.27163	130
140	2.3493	127.477	0.27669	2.2743	127.443	0.27592	2.2038	127.410	0.27518	2.1374	127.377	0.27445	140
150	2.3915	129.163	0.27948	2.3152	129.131	0.27871	2.2435	129.099	0.27797	2.1760	129.067	0.27725	150
160	2.4334	130.861	0.28224	2.3559	130.830	0.28148	2.2830	130.800	0.28074	2.2145	130.769	0.28001	160
170	2.4753	132.570	0.28498	2.3965	132.541	0.28422	2.3225	132.512	0.28348	2.2528	132.483	0.28276	170
180	2.5171	134.292	0.28769	2.4370	134.264	0.28693	2.3618	134.236	0.28619	2.2911	134.208	0.28548	180
190	2.5587	136.026	0.29038	2.4775	135.999	0.28962	2.4011	135.972	0.28889	2.3292	135.945	0.28817	190
200	2.6003	137.772	0.29305	2.5178	137.746	0.29229	2.4402	137.720	0.29156	2.3673	137.694	0.29084	200
210	2.6418	139.529	0.29569	2.5580	139.504	0.29494	2.4793	139.479	0.29420	2.4052	139.454	0.29349	210
220	2.6832	141.299	0.29831	2.5982	141.275	0.29756	2.5183	141.251	0.29683	2.4431	141.227	0.29612	220
230	2.7246	143.081	0.30092	2.6383	143.057	0.30016	2.5572	143.034	0.29943	2.4809	143.011	0.29872	230
240	2.7659	144.874	0.30350	2.6783	144.852	0.30275	2.5961	144.830	0.30202	2.5187	144.807	0.30131	240
250	2.8071	146.680	0.30606	2.7183	146.658	0.30531	2.6349	146.637	0.30458	2.5564	146.615	0.30388	250
260	2.8483	148.497	0.30860	2.7582	148.477	0.30785	2.6736	148.456	0.30713	2.5940	148.435	0.30642	260
270	2.8894	150.327	0.31113	2.7981	150.307	0.31038	2.7123	150.286	0.30965	2.6316	150.266	0.30895	270
280	2.9304	152.168	0.31363	2.8379	152.148	0.31289	2.7510	152.129	0.31216	2.6691	152.109	0.31146	280
290	2.9714	154.021	0.31612	2.8777	154.002	0.31538	2.7895	153.983	0.31465	2.7066	153.964	0.31395	290
300	—	—	—	2.9174	155.867	0.31785	2.8281	155.849	0.31712	2.7441	155.831	0.31642	300

TEMP. °F	35			36			37			38			TEMP. °F
	20.304 (—4.67 °F)			21.304 (—3.36 °F)			22.304 (—2.07 °F)			23.304 (— .81 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.5077)	(103.997)	(0.22928)	(1.4680)	(104.130)	(0.22896)	(1.4304)	(104.259)	(0.22866)	(1.3947)	(104.384)	(0.22836)	
0	1.5271	104.726	0.23087	1.4817	104.655	0.23011	1.4387	104.584	0.22937	1.3979	104.512	0.22864	0
10	1.5684	106.288	0.23423	1.5220	106.221	0.23348	1.4781	106.155	0.23275	1.4364	106.088	0.23203	10
20	1.6092	107.855	0.23753	1.5618	107.793	0.23679	1.5170	107.730	0.23607	1.4745	107.667	0.23536	20
30	1.6495	109.430	0.24078	1.6012	109.371	0.24005	1.5555	109.312	0.23933	1.5121	109.253	0.23863	30
40	1.6895	111.011	0.24398	1.6402	110.956	0.24325	1.5936	110.900	0.24254	1.5493	110.844	0.24185	40
50	1.7292	112.601	0.24713	1.6789	112.548	0.24641	1.6313	112.496	0.24570	1.5862	112.443	0.24502	50
60	1.7685	114.199	0.25023	1.7172	114.149	0.24952	1.6687	114.100	0.24882	1.6228	114.050	0.24814	60
70	1.8075	115.806	0.25330	1.7553	115.759	0.25259	1.7059	115.712	0.25189	1.6591	115.665	0.25122	70
80	1.8463	117.423	0.25632	1.7931	117.379	0.25562	1.7428	117.334	0.25493	1.6951	117.289	0.25425	80
90	1.8849	119.050	0.25931	1.8307	119.008	0.25861	1.7794	118.965	0.25792	1.7309	118.923	0.25725	90
100	1.9232	120.687	0.26226	1.8681	120.647	0.26156	1.8159	120.606	0.26088	1.7664	120.566	0.26022	100
110	1.9614	122.335	0.26518	1.9052	122.296	0.26448	1.8521	122.258	0.26380	1.8018	122.219	0.26314	110
120	1.9994	123.993	0.26806	1.9422	123.957	0.26737	1.8882	123.920	0.26670	1.8370	123.883	0.26604	120
130	2.0372	125.663	0.27092	1.9791	125.628	0.27023	1.9241	125.593	0.26956	1.8720	125.558	0.26890	130
140	2.0749	127.343	0.27374	2.0158	127.310	0.27306	1.9599	127.276	0.27239	1.9069	127.243	0.27174	140
150	2.1124	129.035	0.27654	2.0523	129.003	0.27586	1.9955	128.971	0.27519	1.9417	128.939	0.27454	150
160	2.1498	130.739	0.27931	2.0888	130.708	0.27863	2.0310	130.677	0.27797	1.9763	130.647	0.27732	160
170	2.1871	132.453	0.28206	2.1251	132.424	0.28138	2.0664	132.395	0.28072	2.0108	132.365	0.28007	170
180	2.2243	134.180	0.28478	2.1613	134.152	0.28410	2.1017	134.124	0.28344	2.0452	134.095	0.28280	180
190	2.2614	135.918	0.28748	2.1974	135.891	0.28680	2.1369	135.864	0.28614	2.0795	135.837	0.28550	190
200	2.2985	137.668	0.29015	2.2335	137.642	0.28947	2.1720	137.616	0.28882	2.1138	137.590	0.28818	200
210	2.3354	139.430	0.29280	2.2694	139.405	0.29213	2.2070	139.380	0.29147	2.1479	139.354	0.29083	210
220	2.3722	141.203	0.29543	2.3053	141.179	0.29476	2.2419	141.155	0.29410	2.1819	141.131	0.29346	220
230	2.4090	142.988	0.29803	2.3411	142.965	0.29736	2.2768	142.942	0.29671	2.2159	142.918	0.29607	230
240	2.4457	144.785	0.30062	2.3768	144.763	0.29995	2.3116	144.740	0.29930	2.2498	144.718	0.29866	240
250	2.4824	146.594	0.30319	2.4125	146.572	0.30252	2.3463	146.550	0.30187	2.2837	146.529	0.30123	250
260	2.5190	148.414	0.30573	2.4481	148.393	0.30507	2.3810	148.372	0.30442	2.3175	148.351	0.30378	260
270	2.5555	150.246	0.30826	2.4836	150.226	0.30760	2.4156	150.206	0.30695	2.3512	150.186	0.30632	270
280	2.5920	152.090	0.31077	2.5191	152.071	0.31011	2.4502	152.051	0.30946	2.3849	152.031	0.30883	280
290	2.6284	153.945	0.31326	2.5546	153.927	0.31260	2.4847	153.908	0.31195	2.4186	153.889	0.31132	290
300	2.6648	155.812	0.31574	2.5900	155.794	0.31507	2.5192	155.776	0.31443	2.4522	155.758	0.31380	300

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	39			40			41			42			TEMP. °F
	24.304 (0.42 °F)			25.304 (1.63 °F)			26.304 (2.82 °F)			27.304 (3.98 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.3608)	(104.507)	(0.22808)	(1.3285)	(104.627)	(0.22780)	(1.2978)	(104.744)	(0.22752)	(1.2684)	(104.859)	(0.22726)	
10	1.3970	106.021	0.23133	1.3594	105.953	0.23064	1.3237	105.886	0.22997	1.2897	105.818	0.22931	10
20	1.4342	107.604	0.23467	1.3959	107.541	0.23399	1.3595	107.478	0.23333	1.3248	107.414	0.23268	20
30	1.4710	109.193	0.23795	1.4319	109.134	0.23728	1.3948	109.074	0.23662	1.3593	109.014	0.23598	30
40	1.5074	110.788	0.24117	1.4675	110.732	0.24051	1.4296	110.676	0.23986	1.3935	110.620	0.23922	40
50	1.5435	112.390	0.24434	1.5028	112.337	0.24369	1.4642	112.284	0.24304	1.4273	112.231	0.24242	50
60	1.5792	114.000	0.24747	1.5378	113.950	0.24682	1.4984	113.900	0.24618	1.4608	113.849	0.24556	60
70	1.6146	115.618	0.25056	1.5724	115.570	0.24991	1.5323	115.523	0.24928	1.4940	115.475	0.24866	70
80	1.6498	117.244	0.25360	1.6068	117.199	0.25296	1.5659	117.154	0.25233	1.5270	117.109	0.25171	80
90	1.6848	118.880	0.25660	1.6410	118.837	0.25596	1.5993	118.795	0.25534	1.5597	118.752	0.25473	90
100	1.7195	120.525	0.25957	1.6749	120.485	0.25893	1.6325	120.444	0.25831	1.5922	120.403	0.25771	100
110	1.7541	122.181	0.26250	1.7087	122.142	0.26187	1.6656	122.103	0.26125	1.6245	122.065	0.26065	110
120	1.7884	123.846	0.26540	1.7423	123.810	0.26477	1.6984	123.773	0.26416	1.6566	123.736	0.26356	120
130	1.8226	125.523	0.26826	1.7757	125.487	0.26764	1.7310	125.452	0.26703	1.6885	125.417	0.26643	130
140	1.8567	127.209	0.27110	1.8090	127.176	0.27048	1.7635	127.142	0.26987	1.7203	127.109	0.26928	140
150	1.8906	128.907	0.27391	1.8421	128.875	0.27329	1.7959	128.843	0.27268	1.7520	128.811	0.27209	150
160	1.9244	130.616	0.27669	1.8751	130.585	0.27607	1.8282	130.554	0.27547	1.7835	130.524	0.27488	160
170	1.9581	132.336	0.27944	1.9080	132.306	0.27883	1.8603	132.277	0.27823	1.8149	132.247	0.27764	170
180	1.9916	134.067	0.28217	1.9407	134.039	0.28156	1.8923	134.011	0.28096	1.8462	133.982	0.28037	180
190	2.0251	135.810	0.28487	1.9734	135.783	0.28426	1.9242	135.755	0.28366	1.8774	135.728	0.28308	190
200	2.0585	137.564	0.28755	2.0060	137.538	0.28694	1.9561	137.512	0.28635	1.9085	137.486	0.28576	200
210	2.0918	139.329	0.29021	2.0385	139.304	0.28960	1.9878	139.279	0.28901	1.9395	139.254	0.28843	210
220	2.1250	141.107	0.29284	2.0709	141.082	0.29223	2.0195	141.058	0.29164	1.9705	141.034	0.29106	220
230	2.1582	142.895	0.29545	2.1033	142.872	0.29485	2.0511	142.849	0.29426	2.0014	142.825	0.29368	230
240	2.1912	144.695	0.29805	2.1356	144.673	0.29744	2.0826	144.651	0.29685	2.0322	144.628	0.29628	240
250	2.2243	146.507	0.30062	2.1678	146.486	0.30001	2.1141	146.464	0.29942	2.0629	146.442	0.29885	250
260	2.2572	148.331	0.30317	2.2000	148.310	0.30257	2.1455	148.289	0.30198	2.0936	148.268	0.30140	260
270	2.2901	150.166	0.30570	2.2321	150.145	0.30510	2.1769	150.125	0.30451	2.1243	150.105	0.30394	270
280	2.3230	152.012	0.30821	2.2641	151.992	0.30761	2.2082	151.973	0.30703	2.1548	151.953	0.30645	280
290	2.3558	153.870	0.31071	2.2961	153.851	0.31011	2.2394	153.832	0.30952	2.1854	153.813	0.30895	290
300	2.3886	155.739	0.31318	2.3281	155.721	0.31259	2.2706	155.703	0.31200	2.2159	155.684	0.31143	300
310	2.4213	157.620	0.31564	2.3600	157.602	0.31505	2.3018	157.585	0.31446	2.2463	157.567	0.31389	310

TEMP. °F	43			44			45			46			TEMP. °F
	28.304 (5.13 °F)			29.304 (6.25 °F)			30.304 (7.36 °F)			31.304 (8.44 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.2403)	(104.971)	(0.22700)	(1.2135)	(105.080)	(0.22675)	(1.1879)	(105.187)	(0.22650)	(1.1633)	(105.292)	(0.22626)	
10	1.2573	105.749	0.22867	1.2263	105.681	0.22803	1.1967	105.612	0.22741	1.1684	105.544	0.22679	10
20	1.2917	107.350	0.23204	1.2601	107.286	0.23141	1.2298	107.222	0.23080	1.2009	107.157	0.23019	20
30	1.3256	108.954	0.23535	1.2933	108.894	0.23473	1.2625	108.834	0.23412	1.2330	108.773	0.23353	30
40	1.3591	110.563	0.23860	1.3262	110.506	0.23799	1.2948	110.450	0.23739	1.2647	110.393	0.23680	40
50	1.3922	112.178	0.24180	1.3587	112.124	0.24119	1.3267	112.071	0.24060	1.2960	112.017	0.24002	50
60	1.4250	113.799	0.24495	1.3909	113.748	0.24435	1.3582	113.698	0.24376	1.3270	113.647	0.24319	60
70	1.4576	115.427	0.24805	1.4228	115.380	0.24746	1.3895	115.332	0.24688	1.3577	115.284	0.24631	70
80	1.4898	117.064	0.25111	1.4544	117.019	0.25052	1.4205	116.973	0.24995	1.3881	116.928	0.24938	80
90	1.5219	118.709	0.25413	1.4858	118.666	0.25355	1.4512	118.623	0.25298	1.4182	118.580	0.25241	90
100	1.5537	120.363	0.25712	1.5169	120.322	0.25653	1.4818	120.281	0.25597	1.4482	120.240	0.25541	100
110	1.5853	122.026	0.26006	1.5479	121.987	0.25948	1.5121	121.948	0.25892	1.4779	121.909	0.25836	110
120	1.6167	123.699	0.26297	1.5786	123.662	0.26240	1.5423	123.625	0.26184	1.5075	123.587	0.26128	120
130	1.6480	125.382	0.26585	1.6092	125.346	0.26528	1.5723	125.311	0.26472	1.5369	125.275	0.26417	130
140	1.6791	127.075	0.26870	1.6397	127.041	0.26813	1.6021	127.007	0.26757	1.5661	126.973	0.26703	140
150	1.7100	128.778	0.27151	1.6700	128.746	0.27095	1.6318	128.714	0.27039	1.5952	128.682	0.26985	150
160	1.7409	130.493	0.27430	1.7002	130.462	0.27374	1.6613	130.431	0.27319	1.6242	130.400	0.27265	160
170	1.7716	132.218	0.27707	1.7303	132.188	0.27650	1.6908	132.159	0.27595	1.6530	132.129	0.27542	170
180	1.8022	133.954	0.27980	1.7602	133.926	0.27924	1.7201	133.897	0.27869	1.6818	133.869	0.27816	180
190	1.8327	135.701	0.28251	1.7901	135.674	0.28195	1.7494	135.647	0.28141	1.7104	135.619	0.28087	190
200	1.8632	137.459	0.28520	1.8199	137.433	0.28464	1.7785	137.407	0.28410	1.7390	137.381	0.28356	200
210	1.8935	139.229	0.28786	1.8496	139.204	0.28730	1.8076	139.179	0.28676	1.7674	139.153	0.28623	210
220	1.9238	141.010	0.29050	1.8792	140.986	0.28994	1.8366	140.961	0.28940	1.7958	140.937	0.28887	220
230	1.9540	142.802	0.29312	1.9087	142.779	0.29256	1.8655	142.755	0.29202	1.8241	142.732	0.29149	230
240	1.9841	144.606	0.29571	1.9382	144.583	0.29516	1.8943	144.561	0.29462	1.8524	144.538	0.29409	240
250	2.0142	146.421	0.29829	1.9676	146.399	0.29774	1.9231	146.377	0.29720	1.8806	146.355	0.29667	250
260	2.0442	148.247	0.30084	1.9970	148.226	0.30029	1.9518	148.205	0.29976	1.9087	148.184	0.29923	260
270	2.0741	150.085	0.30338	2.0262	150.064	0.30283	1.9805	150.044	0.30230	1.9368	150.024	0.30177	270
280	2.1040	151.934	0.30590	2.0555	151.914	0.30535	2.0091	151.895	0.30481	1.9648	151.875	0.30429	280
290	2.1339	153.794	0.30839	2.0847	153.775	0.30785	2.0377	153.756	0.30731	1.9927	153.737	0.30679	290
300	2.1637	155.666	0.31087	2.1138	155.648	0.31033	2.0662	155.629	0.30980	2.0207	155.611	0.30927	300
310	2.1934	157.549	0.31334	2.1429	157.531	0.31279	2.0947	157.513	0.31226	2.0486	157.496	0.31174	310

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	47			48			49			50			TEMP. °F
	32.304 (9.51 °F)			33.304 (10.56 °F)			34.304 (11.59 °F)			35.304 (12.61 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.1397)	(105.395)	(0.22602)	(1.1170)	(105.496)	(0.22579)	(1.0953)	(105.595)	(0.22557)	(1.0744)	(105.692)	(0.22535)	
10	1.1413	105.474	0.22619	—	—	—	—	—	—	—	—	—	10
20	1.1733	107.092	0.22960	1.1467	107.027	0.22902	1.1213	106.962	0.22844	1.0968	106.897	0.22788	20
30	1.2048	108.712	0.23294	1.1777	108.651	0.23237	1.1518	108.590	0.23180	1.1269	108.529	0.23125	30
40	1.2359	110.335	0.23622	1.2083	110.278	0.23566	1.1819	110.221	0.23510	1.1564	110.163	0.23455	40
50	1.2667	111.963	0.23945	1.2385	111.909	0.23889	1.2116	111.855	0.23834	1.1857	111.800	0.23780	50
60	1.2971	113.596	0.24262	1.2684	113.545	0.24207	1.2409	113.494	0.24152	1.2145	113.443	0.24099	60
70	1.3272	115.236	0.24575	1.2980	115.187	0.24520	1.2700	115.139	0.24466	1.2431	115.091	0.24413	70
80	1.3570	116.882	0.24883	1.3273	116.836	0.24828	1.2988	116.791	0.24775	1.2714	116.745	0.24722	80
90	1.3866	118.536	0.25186	1.3563	118.493	0.25132	1.3273	118.450	0.25079	1.2994	118.406	0.25027	90
100	1.4160	120.199	0.25486	1.3852	120.158	0.25432	1.3556	120.116	0.25380	1.3272	120.075	0.25328	100
110	1.4452	121.870	0.25782	1.4138	121.831	0.25729	1.3837	121.792	0.25676	1.3548	121.752	0.25625	110
120	1.4742	123.550	0.26074	1.4422	123.513	0.26021	1.4116	123.476	0.25970	1.3822	123.438	0.25918	120
130	1.5030	125.240	0.26363	1.4705	125.204	0.26311	1.4394	125.169	0.26259	1.4095	125.133	0.26208	130
140	1.5317	126.940	0.26649	1.4986	126.906	0.26597	1.4670	126.872	0.26545	1.4366	126.838	0.26495	140
150	1.5602	128.649	0.26932	1.5266	128.617	0.26880	1.4944	128.584	0.26829	1.4635	128.552	0.26778	150
160	1.5886	130.369	0.27212	1.5545	130.338	0.27160	1.5217	130.307	0.27109	1.4903	130.276	0.27059	160
170	1.6169	132.099	0.27489	1.5822	132.070	0.27437	1.5490	132.040	0.27386	1.5170	132.010	0.27337	170
180	1.6450	133.840	0.27763	1.6098	133.812	0.27712	1.5761	133.783	0.27661	1.5436	133.755	0.27611	180
190	1.6731	135.592	0.28035	1.6374	135.565	0.27983	1.6031	135.537	0.27933	1.5701	135.510	0.27884	190
200	1.7011	137.355	0.28304	1.6648	137.328	0.28253	1.6300	137.302	0.28203	1.5965	137.276	0.28153	200
210	1.7290	139.128	0.28571	1.6921	139.103	0.28520	1.6568	139.078	0.28470	1.6228	139.053	0.28421	210
220	1.7568	140.913	0.28835	1.7194	140.889	0.28785	1.6835	140.864	0.28735	1.6491	140.840	0.28686	220
230	1.7845	142.709	0.29098	1.7466	142.685	0.29047	1.7102	142.662	0.28997	1.6752	142.638	0.28948	230
240	1.8122	144.516	0.29358	1.7737	144.493	0.29307	1.7368	144.471	0.29258	1.7013	144.448	0.29209	240
250	1.8398	146.334	0.29616	1.8008	146.312	0.29565	1.7633	146.290	0.29516	1.7274	146.268	0.29467	250
260	1.8674	148.163	0.29872	1.8278	148.142	0.29821	1.7898	148.121	0.29772	1.7533	148.100	0.29723	260
270	1.8949	150.004	0.30126	1.8547	149.983	0.30075	1.8162	149.963	0.30026	1.7792	149.943	0.29978	270
280	1.9223	151.855	0.30378	1.8816	151.836	0.30328	1.8426	151.816	0.30278	1.8051	151.797	0.30230	280
290	1.9497	153.718	0.30628	1.9085	153.699	0.30578	1.8689	153.680	0.30529	1.8309	153.661	0.30480	290
300	1.9771	155.593	0.30876	1.9353	155.574	0.30826	1.8952	155.556	0.30777	1.8567	155.537	0.30729	300
310	2.0044	157.478	0.31123	1.9620	157.460	0.31073	1.9214	157.442	0.31024	1.8824	157.424	0.30976	310
320	—	—	—	1.9888	159.357	0.31318	1.9476	159.340	0.31269	1.9081	159.322	0.31221	320

TEMP. °F	51			52			53			54			TEMP. °F
	36.304 (13.62 °F)			37.304 (14.60 °F)			38.304 (15.58 °F)			39.304 (16.54 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(1.0542)	(105.787)	(0.22513)	(1.0348)	(105.880)	(0.22492)	(1.0162)	(105.972)	(0.22472)	(0.99815)	(106.061)	(0.22451)	
20	1.0733	106.831	0.22733	1.0508	106.765	0.22678	1.0290	106.699	0.22624	1.0081	106.632	0.22571	20
30	1.1029	108.467	0.23070	1.0799	108.405	0.23016	1.0577	108.343	0.22963	1.0363	108.281	0.22911	30
40	1.1320	110.105	0.23401	1.1085	110.047	0.23348	1.0859	109.989	0.23296	1.0641	109.930	0.23244	40
50	1.1608	111.746	0.23726	1.1368	111.691	0.23674	1.1138	111.637	0.23622	1.0916	111.582	0.23572	50
60	1.1891	113.391	0.24046	1.1647	113.340	0.23994	1.1413	113.288	0.23943	1.1186	113.237	0.23893	60
70	1.2172	115.042	0.24361	1.1924	114.993	0.24309	1.1684	114.945	0.24259	1.1454	114.896	0.24209	70
80	1.2450	116.699	0.24671	1.2197	116.653	0.24620	1.1953	116.607	0.24570	1.1719	116.560	0.24521	80
90	1.2726	118.363	0.24976	1.2468	118.319	0.24926	1.2220	118.275	0.24876	1.1981	118.231	0.24827	90
100	1.2999	120.034	0.25277	1.2737	119.992	0.25227	1.2484	119.951	0.25178	1.2241	119.909	0.25130	100
110	1.3270	121.713	0.25575	1.3003	121.674	0.25525	1.2746	121.634	0.25476	1.2499	121.595	0.25428	110
120	1.3540	123.401	0.25868	1.3268	123.363	0.25819	1.3007	123.326	0.25771	1.2755	123.288	0.25723	120
130	1.3807	125.098	0.26159	1.3531	125.062	0.26110	1.3265	125.026	0.26061	1.3009	124.990	0.26014	130
140	1.4073	126.804	0.26445	1.3793	126.769	0.26397	1.3522	126.735	0.26349	1.3262	126.701	0.26302	140
150	1.4338	128.519	0.26729	1.4053	128.487	0.26681	1.3778	128.454	0.26633	1.3513	128.421	0.26586	150
160	1.4602	130.245	0.27010	1.4311	130.214	0.26962	1.4032	130.182	0.26914	1.3763	130.151	0.26868	160
170	1.4864	131.980	0.27288	1.4569	131.951	0.27240	1.4285	131.921	0.27193	1.4012	131.891	0.27146	170
180	1.5125	133.726	0.27563	1.4825	133.698	0.27515	1.4537	133.669	0.27468	1.4260	133.640	0.27422	180
190	1.5385	135.483	0.27835	1.5081	135.455	0.27788	1.4788	135.428	0.27741	1.4506	135.400	0.27695	190
200	1.5644	137.250	0.28105	1.5335	137.223	0.28058	1.5038	137.197	0.28011	1.4752	137.170	0.27965	200
210	1.5902	139.027	0.28373	1.5589	139.002	0.28325	1.5287	138.977	0.28279	1.4997	138.951	0.28233	210
220	1.6160	140.816	0.28638	1.5842	140.791	0.28591	1.5536	140.767	0.28544	1.5241	140.743	0.28499	220
230	1.6417	142.615	0.28900	1.6094	142.592	0.28853	1.5783	142.568	0.28807	1.5484	142.545	0.28762	230
240	1.6673	144.425	0.29161	1.6345	144.403	0.29114	1.6030	144.380	0.29068	1.5727	144.357	0.29023	240
250	1.6928	146.247	0.29420	1.6596	146.225	0.29373	1.6276	146.203	0.29327	1.5969	146.181	0.29282	250
260	1.7183	148.079	0.29676	1.6846	148.058	0.29629	1.6522	148.037	0.29583	1.6210	148.016	0.29538	260
270	1.7437	149.922	0.29930	1.7096	149.902	0.29884	1.6767	149.882	0.29838	1.6451	149.861	0.29793	270
280	1.7691	151.777	0.30183	1.7345	151.757	0.30136	1.7012	151.738	0.30091	1.6691	151.718	0.30046	280
290	1.7944	153.642	0.30433	1.7593	153.623	0.30387	1.7256	153.604	0.30341	1.6931	153.585	0.30297	290
300	1.8197	155.519	0.30682	1.7842	155.500	0.30636	1.7500	155.482	0.30590	1.7170	155.464	0.30545	300
310	1.8450	157.406	0.30929	1.8089	157.389	0.30882	1.7743	157.371	0.30837	1.7409	157.353	0.30792	310
320	1.8702	159.305	0.31174	1.8337	159.288	0.31128	1.7986	159.270	0.31082	1.7648	159.253	0.31038	320

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	55			56			57			58			TEMP. °F
	40.304 (17.48 °F)			41.304 (18.42 °F)			42.304 (19.34 °F)			43.304 (20.25 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.98076)	(106.150)	(0.22431)	(0.96398)	(106.236)	(0.22412)	(0.94776)	(106.322)	(0.22393)	(0.93208)	(106.406)	(0.22374)	
20	0.98786	106.566	0.22518	0.96838	106.499	0.22467	0.94957	106.432	0.22416	—	—	—	20
30	1.0157	108.219	0.22859	0.99587	108.156	0.22809	0.97670	108.093	0.22759	0.95819	108.030	0.22709	30
40	1.0432	109.872	0.23194	1.0229	109.813	0.23144	1.0034	109.754	0.23094	0.98450	109.695	0.23046	40
50	1.0702	111.527	0.23522	1.0495	111.472	0.23472	1.0296	111.416	0.23424	1.0104	111.361	0.23376	50
60	1.0968	113.185	0.23844	1.0758	113.133	0.23795	1.0555	113.081	0.23747	1.0359	113.028	0.23700	60
70	1.1232	114.847	0.24160	1.1018	114.798	0.24112	1.0811	114.748	0.24065	1.0612	114.699	0.24018	70
80	1.1493	116.514	0.24472	1.1275	116.468	0.24425	1.1064	116.421	0.24378	1.0861	116.375	0.24331	80
90	1.1751	118.187	0.24779	1.1529	118.143	0.24732	1.1315	118.099	0.24686	1.1108	118.055	0.24640	90
100	1.2007	119.868	0.25082	1.1781	119.826	0.25036	1.1563	119.784	0.24990	1.1352	119.742	0.24944	100
110	1.2260	121.555	0.25381	1.2031	121.515	0.25335	1.1809	121.476	0.25289	1.1594	121.436	0.25244	110
120	1.2512	123.251	0.25676	1.2278	123.213	0.25630	1.2053	123.175	0.25585	1.1835	123.137	0.25540	120
130	1.2762	124.954	0.25968	1.2525	124.918	0.25922	1.2295	124.882	0.25877	1.2073	124.846	0.25833	130
140	1.3011	126.667	0.26256	1.2769	126.633	0.26210	1.2536	126.598	0.26165	1.2310	126.564	0.26121	140
150	1.3258	128.389	0.26540	1.3012	128.356	0.26495	1.2775	128.323	0.26451	1.2546	128.290	0.26407	150
160	1.3504	130.120	0.26822	1.3254	130.089	0.26777	1.3013	130.057	0.26733	1.2780	130.026	0.26689	160
170	1.3749	131.861	0.27101	1.3495	131.831	0.27056	1.3250	131.801	0.27012	1.3013	131.771	0.26969	170
180	1.3992	133.612	0.27377	1.3734	133.583	0.27332	1.3485	133.554	0.27288	1.3245	133.526	0.27245	180
190	1.4235	135.373	0.27650	1.3973	135.345	0.27605	1.3720	135.318	0.27562	1.3476	135.290	0.27519	190
200	1.4476	137.144	0.27920	1.4210	137.118	0.27876	1.3954	137.091	0.27833	1.3706	137.065	0.27790	200
210	1.4717	138.926	0.28188	1.4447	138.900	0.28144	1.4186	138.875	0.28101	1.3935	138.850	0.28058	210
220	1.4957	140.718	0.28454	1.4683	140.694	0.28410	1.4418	140.669	0.28367	1.4163	140.645	0.28324	220
230	1.5196	142.521	0.28717	1.4918	142.498	0.28674	1.4650	142.474	0.28630	1.4391	142.450	0.28588	230
240	1.5434	144.335	0.28978	1.5152	144.312	0.28935	1.4880	144.289	0.28892	1.4617	144.267	0.28850	240
250	1.5672	146.159	0.29237	1.5386	146.138	0.29194	1.5110	146.116	0.29151	1.4843	146.094	0.29109	250
260	1.5909	147.995	0.29494	1.5619	147.974	0.29451	1.5339	147.953	0.29408	1.5069	147.931	0.29366	260
270	1.6146	149.841	0.29749	1.5852	149.821	0.29706	1.5568	149.800	0.29663	1.5294	149.780	0.29621	270
280	1.6382	151.698	0.30002	1.6084	151.678	0.29958	1.5796	151.659	0.29916	1.5518	151.639	0.29874	280
290	1.6617	153.566	0.30253	1.6315	153.547	0.30209	1.6024	153.528	0.30167	1.5742	153.509	0.30125	290
300	1.6853	155.445	0.30502	1.6546	155.427	0.30458	1.6251	155.408	0.30416	1.5966	155.390	0.30374	300
310	1.7087	157.335	0.30749	1.6777	157.317	0.30706	1.6478	157.299	0.30663	1.6189	157.281	0.30622	310
320	1.7322	159.236	0.30994	1.7008	159.218	0.30951	1.6704	159.201	0.30909	1.6412	159.184	0.30867	320
330	—	—	—	—	—	—	—	—	—	1.6634	161.097	0.31111	330

TEMP. °F	59			60			61			62			TEMP. °F
	44.304 (21.14 °F)			45.304 (22.03 °F)			46.304 (22.90 °F)			47.304 (23.77 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.91691)	(106.488)	(0.22355)	(0.90222)	(106.569)	(0.22337)	(0.88800)	(106.649)	(0.22320)	(0.87423)	(106.727)	(0.22302)	
30	0.94030	107.967	0.22660	0.92300	107.904	0.22612	0.90626	107.840	0.22565	0.89005	107.776	0.22518	30
40	0.96626	109.636	0.22998	0.94863	109.577	0.22950	0.93157	109.517	0.22904	0.91506	109.457	0.22857	40
50	0.99182	111.305	0.23328	0.97385	111.249	0.23282	0.95647	111.193	0.23236	0.93965	111.137	0.23190	50
60	1.0170	112.976	0.23653	0.99871	112.923	0.23607	0.98100	112.871	0.23562	0.96387	112.818	0.23517	60
70	1.0419	114.650	0.23972	1.0232	114.600	0.23927	1.0052	114.551	0.23882	0.98775	114.501	0.23838	70
80	1.0665	116.328	0.24286	1.0475	116.281	0.24241	1.0291	116.234	0.24197	1.0113	116.187	0.24153	80
90	1.0908	118.011	0.24595	1.0715	117.967	0.24551	1.0528	117.922	0.24507	1.0347	117.878	0.24463	90
100	1.1149	119.700	0.24899	1.0952	119.658	0.24855	1.0762	119.616	0.24812	1.0578	119.574	0.24769	100
110	1.1387	121.396	0.25200	1.1187	121.356	0.25156	1.0994	121.316	0.25113	1.0806	121.276	0.25071	110
120	1.1624	123.099	0.25496	1.1420	123.061	0.25453	1.1224	123.023	0.25410	1.1033	122.985	0.25368	120
130	1.1859	124.810	0.25789	1.1652	124.774	0.25746	1.1452	124.738	0.25703	1.1258	124.702	0.25662	130
140	1.2093	126.530	0.26078	1.1882	126.495	0.26035	1.1678	126.461	0.25993	1.1481	126.426	0.25952	140
150	1.2325	128.258	0.26364	1.2111	128.225	0.26321	1.1904	128.192	0.26279	1.1703	128.159	0.26238	150
160	1.2555	129.994	0.26646	1.2338	129.963	0.26604	1.2127	129.932	0.26562	1.1924	129.900	0.26521	160
170	1.2785	131.741	0.26926	1.2564	131.711	0.26884	1.2350	131.681	0.26842	1.2143	131.650	0.26802	170
180	1.3013	133.497	0.27203	1.2788	133.468	0.27161	1.2571	133.439	0.27119	1.2361	133.410	0.27079	180
190	1.3240	135.262	0.27476	1.3012	135.235	0.27435	1.2792	135.207	0.27394	1.2578	135.179	0.27353	190
200	1.3466	137.038	0.27748	1.3235	137.012	0.27706	1.3011	136.985	0.27665	1.2795	136.959	0.27625	200
210	1.3692	138.824	0.28016	1.3457	138.799	0.27975	1.3230	138.773	0.27934	1.3010	138.748	0.27894	210
220	1.3916	140.620	0.28283	1.3678	140.596	0.28241	1.3447	140.571	0.28201	1.3224	140.547	0.28161	220
230	1.4140	142.427	0.28546	1.3898	142.403	0.28505	1.3664	142.380	0.28465	1.3438	142.356	0.28425	230
240	1.4363	144.244	0.28808	1.4118	144.221	0.28767	1.3881	144.199	0.28727	1.3651	144.176	0.28687	240
250	1.4586	146.072	0.29067	1.4337	146.050	0.29027	1.4096	146.028	0.28986	1.3863	146.006	0.28947	250
260	1.4808	147.910	0.29325	1.4556	147.889	0.29284	1.4311	147.868	0.29244	1.4075	147.847	0.29204	260
270	1.5029	149.759	0.29580	1.4773	149.739	0.29539	1.4526	149.719	0.29499	1.4286	149.698	0.29460	270
280	1.5250	151.619	0.29833	1.4991	151.600	0.29792	1.4740	151.580	0.29753	1.4497	151.560	0.29713	280
290	1.5470	153.490	0.30084	1.5208	153.471	0.30044	1.4953	153.452	0.30004	1.4707	153.433	0.29965	290
300	1.5690	155.371	0.30333	1.5424	155.353	0.30293	1.5166	155.334	0.30253	1.4917	155.316	0.30214	300
310	1.5910	157.263	0.30581	1.5640	157.246	0.30541	1.5379	157.228	0.30501	1.5126	157.210	0.30462	310
320	1.6129	159.166	0.30826	1.5856	159.149	0.30786	1.5591	159.132	0.30747	1.5335	159.114	0.30708	320
330	1.6348	161.080	0.31070	1.6071	161.063	0.31030	1.5803	161.046	0.30991	1.5544	161.029	0.30952	330

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	63			64			65			66			TEMP. °F
	48.304 (24.62 °F)			49.304 (25.46 °F)			50.304 (26.29 °F)			51.304 (27.12 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.86087)	(106.804)	(0.22285)	(0.84791)	(106.880)	(0.22268)	(0.83534)	(106.955)	(0.22251)	(0.82313)	(107.029)	(0.22235)	
30	0.87436	107.712	0.22471	0.85915	107.648	0.22425	0.84440	107.583	0.22380	0.83010	107.518	0.22335	30
40	0.89907	109.397	0.22812	0.88357	109.337	0.22767	0.86855	109.277	0.22722	0.85398	109.216	0.22678	40
50	0.92336	111.081	0.23145	0.90757	111.024	0.23101	0.89226	110.968	0.23057	0.87742	110.911	0.23014	50
60	0.94727	112.765	0.23473	0.93119	112.712	0.23429	0.91560	112.659	0.23386	0.90048	112.605	0.23343	60
70	0.97085	114.451	0.23794	0.95447	114.401	0.23751	0.93859	114.351	0.23708	0.92319	114.300	0.23666	70
80	0.99413	116.140	0.24110	0.97745	116.093	0.24067	0.96129	116.045	0.24025	0.94561	115.998	0.23984	80
90	1.0171	117.833	0.24421	1.0002	117.789	0.24379	0.98371	117.744	0.24337	0.96775	117.699	0.24296	90
100	1.0399	119.532	0.24727	1.0226	119.489	0.24685	1.0059	119.447	0.24644	0.98966	119.404	0.24604	100
110	1.0625	121.236	0.25029	1.0449	121.196	0.24988	1.0279	121.156	0.24947	1.0113	121.115	0.24907	110
120	1.0848	122.947	0.25327	1.0670	122.909	0.25286	1.0496	122.871	0.25245	1.0328	122.832	0.25205	120
130	1.1070	124.665	0.25620	1.0888	124.629	0.25580	1.0712	124.593	0.25540	1.0541	124.556	0.25500	130
140	1.1290	126.391	0.25911	1.1106	126.357	0.25870	1.0926	126.322	0.25831	1.0753	126.287	0.25791	140
150	1.1509	128.126	0.26198	1.1321	128.093	0.26157	1.1139	128.060	0.26118	1.0963	128.026	0.26079	150
160	1.1727	129.869	0.26481	1.1536	129.837	0.26441	1.1351	129.805	0.26402	1.1171	129.774	0.26363	160
170	1.1943	131.620	0.26761	1.1749	131.590	0.26722	1.1561	131.560	0.26683	1.1378	131.530	0.26644	170
180	1.2158	133.381	0.27039	1.1961	133.352	0.27000	1.1770	133.323	0.26961	1.1584	133.294	0.26922	180
190	1.2372	135.152	0.27314	1.2172	135.124	0.27274	1.1978	135.096	0.27236	1.1790	135.068	0.27198	190
200	1.2585	136.932	0.27585	1.2382	136.905	0.27546	1.2185	136.879	0.27508	1.1994	136.852	0.27470	200
210	1.2797	138.722	0.27855	1.2591	138.696	0.27816	1.2391	138.671	0.27778	1.2197	138.645	0.27740	210
220	1.3008	140.522	0.28122	1.2799	140.498	0.28083	1.2596	140.473	0.28045	1.2399	140.448	0.28007	220
230	1.3219	142.332	0.28386	1.3006	142.309	0.28347	1.2801	142.285	0.28309	1.2601	142.261	0.28272	230
240	1.3429	144.153	0.28648	1.3213	144.130	0.28610	1.3004	144.107	0.28572	1.2802	144.085	0.28534	240
250	1.3638	145.984	0.28908	1.3419	145.962	0.28870	1.3208	145.940	0.28832	1.3002	145.918	0.28794	250
260	1.3846	147.826	0.29166	1.3625	147.804	0.29127	1.3410	147.783	0.29090	1.3202	147.762	0.29052	260
270	1.4055	149.678	0.29421	1.3830	149.657	0.29383	1.3612	149.637	0.29345	1.3401	149.616	0.29308	270
280	1.4262	151.540	0.29675	1.4034	151.520	0.29637	1.3814	151.501	0.29599	1.3600	151.481	0.29562	280
290	1.4469	153.413	0.29926	1.4238	153.394	0.29888	1.4015	153.375	0.29851	1.3798	153.356	0.29814	290
300	1.4676	155.297	0.30176	1.4442	155.279	0.30138	1.4215	155.260	0.30101	1.3995	155.242	0.30064	300
310	1.4882	157.192	0.30424	1.4645	157.174	0.30386	1.4415	157.156	0.30348	1.4193	157.138	0.30312	310
320	1.5088	159.097	0.30670	1.4848	159.079	0.30632	1.4615	159.062	0.30595	1.4389	159.045	0.30558	320
330	1.5293	161.013	0.30914	1.5050	160.996	0.30876	1.4814	160.979	0.30839	1.4586	160.962	0.30802	330

TEMP. °F	67			68			69			70			TEMP. °F
	52.304 (27.93 °F)			53.304 (28.74 °F)			54.304 (29.53 °F)			55.304 (30.32 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.81127)	(107.101)	(0.22219)	(0.79975)	(107.172)	(0.22203)	(0.78855)	(107.243)	(0.22187)	(0.77766)	(107.312)	(0.22172)	
30	0.81622	107.453	0.22291	0.80274	107.388	0.22247	0.78964	107.323	0.22203	—	—	—	30
40	0.83983	109.155	0.22635	0.82610	109.094	0.22592	0.81277	109.033	0.22549	0.79981	108.972	0.22507	40
50	0.86301	110.854	0.22971	0.84903	110.797	0.22929	0.83544	110.740	0.22887	0.82224	110.682	0.22846	50
60	0.88580	112.552	0.23301	0.87156	112.498	0.23260	0.85773	112.444	0.23218	0.84428	112.391	0.23178	60
70	0.90825	114.250	0.23625	0.89375	114.200	0.23584	0.87966	114.149	0.23543	0.86598	114.098	0.23503	70
80	0.93040	115.950	0.23943	0.91563	115.903	0.23902	0.90129	115.855	0.23862	0.88736	115.807	0.23823	80
90	0.95227	117.654	0.24256	0.93724	117.609	0.24216	0.92264	117.564	0.24176	0.90846	117.519	0.24137	90
100	0.97390	119.362	0.24564	0.95860	119.319	0.24524	0.94375	119.277	0.24485	0.92932	119.234	0.24446	100
110	0.99531	121.075	0.24867	0.97974	121.035	0.24828	0.96463	120.994	0.24789	0.94995	120.953	0.24751	110
120	1.0165	122.794	0.25166	1.0007	122.756	0.25127	0.98531	122.717	0.25089	0.97038	122.679	0.25051	120
130	1.0375	124.520	0.25461	1.0214	124.483	0.25423	1.0058	124.447	0.25385	0.99063	124.410	0.25347	130
140	1.0584	126.253	0.25753	1.0420	126.218	0.25714	1.0261	126.183	0.25677	1.0107	126.148	0.25639	140
150	1.0791	127.993	0.26040	1.0625	127.960	0.26003	1.0463	127.927	0.25965	1.0306	127.893	0.25928	150
160	1.0997	129.742	0.26325	1.0828	129.710	0.26287	1.0664	129.678	0.26250	1.0504	129.647	0.26213	160
170	1.1201	131.499	0.26606	1.1030	131.469	0.26569	1.0863	131.438	0.26532	1.0701	131.408	0.26495	170
180	1.1405	133.265	0.26885	1.1230	133.236	0.26847	1.1061	133.207	0.26811	1.0896	133.178	0.26774	180
190	1.1607	135.041	0.27160	1.1430	135.013	0.27123	1.1258	134.985	0.27086	1.1091	134.957	0.27050	190
200	1.1808	136.825	0.27433	1.1629	136.799	0.27396	1.1454	136.772	0.27359	1.1284	136.745	0.27323	200
210	1.2009	138.620	0.27702	1.1826	138.594	0.27666	1.1649	138.568	0.27629	1.1477	138.543	0.27594	210
220	1.2208	140.424	0.27970	1.2023	140.399	0.27933	1.1843	140.374	0.27897	1.1669	140.350	0.27862	220
230	1.2407	142.238	0.28235	1.2219	142.214	0.28198	1.2037	142.190	0.28162	1.1860	142.166	0.28127	230
240	1.2605	144.062	0.28497	1.2415	144.039	0.28461	1.2230	144.016	0.28425	1.2050	143.993	0.28390	240
250	1.2803	145.896	0.28758	1.2610	145.874	0.28721	1.2422	145.852	0.28686	1.2239	145.830	0.28650	250
260	1.3000	147.741	0.29016	1.2804	147.719	0.28980	1.2613	147.698	0.28944	1.2428	147.677	0.28909	260
270	1.3196	149.596	0.29272	1.2997	149.575	0.29236	1.2804	149.555	0.29200	1.2617	149.534	0.29165	270
280	1.3392	151.461	0.29526	1.3190	151.441	0.29490	1.2995	151.421	0.29454	1.2805	151.401	0.29419	280
290	1.3587	153.337	0.29778	1.3383	153.318	0.29742	1.3185	153.298	0.29706	1.2992	153.279	0.29672	290
300	1.3782	155.223	0.30028	1.3575	155.205	0.29992	1.3374	155.186	0.29956	1.3179	155.167	0.29922	300
310	1.3976	157.120	0.30276	1.3767	157.102	0.30240	1.3563	157.084	0.30205	1.3365	157.066	0.30170	310
320	1.4171	159.027	0.30522	1.3958	159.010	0.30486	1.3752	158.992	0.30451	1.3551	158.975	0.30416	320
330	1.4364	160.945	0.30766	1.4149	160.928	0.30731	1.3940	160.911	0.30696	1.3737	160.894	0.30661	330
340	—	—	—	—	—	—	—	—	—	1.3923	162.824	0.30904	340

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	71			72			73			74			TEMP. °F
	56.304 (31.10 °F)			57.304 (31.87 °F)			58.304 (32.63 °F)			59.304 (33.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.76706)	(107.380)	(0.22156)	(0.75675)	(107.448)	(0.22141)	(0.74671)	(107.514)	(0.22127)	(0.73693)	(107.580)	(0.22112)	
40	0.78721	108.910	0.22465	0.77495	108.849	0.22424	0.76303	108.787	0.22383	0.75143	108.724	0.22343	40
50	0.80941	110.625	0.22805	0.79693	110.567	0.22764	0.78479	110.509	0.22724	0.77298	110.451	0.22685	50
60	0.83122	112.336	0.23138	0.81851	112.282	0.23098	0.80615	112.228	0.23058	0.79412	112.173	0.23019	60
70	0.85267	114.047	0.23464	0.83974	113.996	0.23424	0.82715	113.945	0.23386	0.81491	113.894	0.23347	70
80	0.87382	115.759	0.23784	0.86065	115.711	0.23745	0.84784	115.663	0.23707	0.83537	115.615	0.23669	80
90	0.89468	117.473	0.24099	0.88128	117.428	0.24060	0.86824	117.382	0.24023	0.85555	117.337	0.23985	90
100	0.91529	119.191	0.24408	0.90165	119.148	0.24370	0.88839	119.105	0.24333	0.87548	119.062	0.24296	100
110	0.93568	120.913	0.24713	0.92181	120.872	0.24676	0.90831	120.831	0.24639	0.89518	120.790	0.24602	110
120	0.95587	122.640	0.25014	0.94175	122.601	0.24977	0.92803	122.563	0.24940	0.91467	122.524	0.24904	120
130	0.97587	124.373	0.25310	0.96152	124.336	0.25273	0.94756	124.300	0.25237	0.93398	124.263	0.25201	130
140	0.99570	126.113	0.25603	0.98112	126.078	0.25566	0.96693	126.043	0.25530	0.95312	126.008	0.25495	140
150	1.0154	127.860	0.25892	1.0006	127.827	0.25856	0.98514	127.793	0.25820	0.97210	127.760	0.25785	150
160	1.0349	129.615	0.26177	1.0199	129.583	0.26141	1.0052	129.551	0.26106	0.99095	129.519	0.26071	160
170	1.0544	131.378	0.26459	1.0390	131.347	0.26424	1.0242	131.317	0.26388	1.0097	131.286	0.26354	170
180	1.0737	133.149	0.26738	1.0581	133.120	0.26703	1.0430	133.091	0.26668	1.0283	133.061	0.26633	180
190	1.0928	134.929	0.27014	1.0771	134.901	0.26979	1.0617	134.873	0.26945	1.0468	134.845	0.26910	190
200	1.1119	136.718	0.27288	1.0959	136.691	0.27253	1.0803	136.665	0.27218	1.0652	136.638	0.27184	200
210	1.1310	138.517	0.27558	1.1147	138.491	0.27523	1.0989	138.465	0.27489	1.0835	138.439	0.27455	210
220	1.1499	140.325	0.27826	1.1334	140.300	0.27792	1.1173	140.275	0.27757	1.1017	140.251	0.27723	220
230	1.1687	142.143	0.28092	1.1520	142.119	0.28057	1.1357	142.095	0.28023	1.1198	142.071	0.27989	230
240	1.1875	143.970	0.28355	1.1705	143.947	0.28320	1.1540	143.924	0.28286	1.1379	143.901	0.28253	240
250	1.2062	145.808	0.28616	1.1890	145.786	0.28581	1.1722	145.764	0.28547	1.1559	145.742	0.28514	250
260	1.2249	147.656	0.28874	1.2074	147.634	0.28840	1.1904	147.613	0.28806	1.1738	147.592	0.28773	260
270	1.2434	149.513	0.29131	1.2257	149.493	0.29096	1.2085	149.472	0.29063	1.1917	149.452	0.29030	270
280	1.2620	151.382	0.29385	1.2440	151.362	0.20351	1.2266	151.342	0.29317	1.2096	151.322	0.29284	280
290	1.2805	153.260	0.29637	1.2623	153.241	0.29603	1.2446	153.222	0.29570	1.2273	153.202	0.29537	290
300	1.2989	155.149	0.29887	1.2805	155.130	0.29854	1.2625	155.112	0.29820	1.2451	155.093	0.29787	300
310	1.3173	157.048	0.30136	1.2986	157.030	0.30102	1.2805	157.012	0.30069	1.2628	156.994	0.30036	310
320	1.3357	158.957	0.30382	1.3167	158.940	0.30349	1.2983	158.923	0.30315	1.2804	158.905	0.30282	320
330	1.3540	160.877	0.30627	1.3348	160.860	0.30593	1.3162	160.844	0.30560	1.2980	160.827	0.30527	330
340	1.3723	162.808	0.30870	1.3529	162.791	0.30836	1.3340	162.775	0.30803	1.3156	162.758	0.30770	340

TEMP. °F	75			76			77			78			TEMP. °F
	60.304 (34.13 °F)			61.304 (34.87 °F)			62.304 (35.61 °F)			63.304 (36.33 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.72740)	(107.644)	(0.22098)	(0.71811)	(107.708)	(0.22083)	(0.70905)	(107.771)	(0.22069)	(0.70021)	(107.833)	(0.22056)	
40	0.74013	108.662	0.22303	0.72913	108.599	0.22263	0.71840	108.537	0.22223	0.70795	108.474	0.22184	40
50	0.76148	110.393	0.22645	0.75027	110.334	0.22607	0.73936	110.275	0.22568	0.72872	110.217	0.22530	50
60	0.78241	112.119	0.22981	0.77100	112.064	0.22943	0.75989	112.009	0.22905	0.74906	111.954	0.22867	60
70	0.80298	113.843	0.23309	0.79137	113.791	0.23272	0.78006	113.740	0.23235	0.76903	113.688	0.23198	70
80	0.82323	115.566	0.23632	0.81142	115.518	0.23595	0.79990	115.469	0.23558	0.78868	115.421	0.23522	80
90	0.84320	117.291	0.23948	0.83117	117.245	0.23912	0.81946	117.200	0.23876	0.80804	117.154	0.23840	90
100	0.86291	119.019	0.24260	0.85068	118.975	0.24224	0.83875	118.932	0.24188	0.82714	118.888	0.24153	100
110	0.88239	120.749	0.24566	0.86995	120.708	0.24531	0.85782	120.667	0.24495	0.84600	120.626	0.24461	110
120	0.90167	122.485	0.24868	0.88901	122.446	0.24833	0.87668	122.407	0.24798	0.86466	122.368	0.24764	120
130	0.92076	124.226	0.25166	0.90789	124.189	0.25131	0.89535	124.152	0.25097	0.88313	124.115	0.25062	130
140	0.93968	125.973	0.25460	0.92659	125.937	0.25425	0.91384	125.902	0.25391	0.90142	125.867	0.25357	140
150	0.95844	127.726	0.25750	0.94514	127.693	0.25715	0.93219	127.659	0.25681	0.91956	127.625	0.25648	150
160	0.97707	129.487	0.26036	0.96355	129.455	0.26002	0.95039	129.423	0.25968	0.93756	129.391	0.25935	160
170	0.99557	131.255	0.26319	0.98184	131.225	0.26286	0.96846	131.194	0.26252	0.95543	131.164	0.26219	170
180	1.0139	133.032	0.26599	1.0000	133.003	0.26566	0.98642	132.973	0.26532	0.97318	132.944	0.26499	180
190	1.0322	134.817	0.26876	1.0181	134.789	0.26843	1.0043	134.761	0.26810	0.99082	134.733	0.26777	190
200	1.0504	136.611	0.27150	1.0360	136.584	0.27117	1.0220	136.557	0.27084	1.0084	136.530	0.27051	200
210	1.0685	138.414	0.27421	1.0539	138.388	0.27388	1.0397	138.362	0.27356	1.0258	138.336	0.27323	210
220	1.0865	140.226	0.27690	1.0717	140.201	0.27657	1.0572	140.176	0.27624	1.0432	140.151	0.27592	220
230	1.1044	142.047	0.27956	1.0894	142.023	0.27923	1.0747	142.000	0.27891	1.0605	141.976	0.27859	230
240	1.1222	143.878	0.28220	1.1070	143.855	0.28187	1.0921	143.832	0.28155	1.0777	143.809	0.28123	240
250	1.1400	145.719	0.28481	1.1246	145.697	0.28448	1.1095	145.675	0.28416	1.0948	145.653	0.28384	250
260	1.1577	147.570	0.28740	1.1421	147.549	0.28707	1.1268	147.527	0.28675	1.1119	147.506	0.28643	260
270	1.1754	149.431	0.28997	1.1595	149.410	0.28964	1.1440	149.390	0.28932	1.1289	149.369	0.28901	270
280	1.1930	151.302	0.29251	1.1769	151.282	0.29219	1.1612	151.262	0.29187	1.1459	151.242	0.29155	280
290	1.2106	153.183	0.29504	1.1942	153.164	0.29472	1.1783	153.144	0.29440	1.1628	153.125	0.29408	290
300	1.2281	155.074	0.29755	1.2115	155.056	0.29722	1.1954	155.037	0.29691	1.1797	155.018	0.29659	300
310	1.2456	156.976	0.30003	1.2288	156.958	0.29971	1.2125	156.940	0.29939	1.1966	156.922	0.29908	310
320	1.2630	158.888	0.30250	1.2460	158.870	0.30218	1.2295	158.853	0.30186	1.2134	158.835	0.30155	320
330	1.2804	160.810	0.30495	1.2632	160.793	0.30463	1.2464	160.776	0.30431	1.2301	160.759	0.30400	330
340	1.2977	162.742	0.30738	1.2803	162.725	0.30706	1.2634	162.709	0.30675	1.2468	162.693	0.30644	340

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	79			80			81			82			TEMP. °F
	64.304 (37.05 °F)			65.304 (37.76 °F)			66.304 (38.47 °F)			67.304 (39.17 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.69160)	(107.894)	(0.22042)	(0.68318)	(107.954)	(0.22029)	(0.67497)	(108.013)	(0.22015)	(0.66695)	(108.072)	(0.22002)	
40	0.69776	108.410	0.22146	0.68782	108.347	0.22107	0.67812	108.283	0.22069	0.66865	108.219	0.22032	40
50	0.71834	110.158	0.22492	0.70822	110.098	0.22454	0.69835	110.039	0.22417	0.68872	109.979	0.22380	50
60	0.73850	111.899	0.22830	0.72820	111.843	0.22793	0.71815	111.788	0.22757	0.70835	111.732	0.22721	60
70	0.75829	113.636	0.23161	0.74780	113.584	0.23125	0.73758	113.532	0.23089	0.72760	113.480	0.23054	70
80	0.77774	115.372	0.23486	0.76708	115.323	0.23450	0.75667	115.274	0.23415	0.74652	115.225	0.23380	80
90	0.79691	117.108	0.23805	0.78605	117.061	0.23770	0.77547	117.015	0.23735	0.76514	116.969	0.23701	90
100	0.81581	118.845	0.24118	0.80477	118.801	0.24083	0.79400	118.758	0.24049	0.78349	118.714	0.24015	100
110	0.83448	120.585	0.24426	0.82325	120.544	0.24392	0.81230	120.502	0.24358	0.80161	120.461	0.24325	110
120	0.85294	122.392	0.24730	0.84152	122.290	0.24696	0.83038	122.250	0.24662	0.81951	122.211	0.24629	120
130	0.87121	124.077	0.25029	0.85960	124.040	0.24995	0.84827	124.003	0.24962	0.83722	123.966	0.24929	130
140	0.88931	125.832	0.25324	0.87751	125.796	0.25290	0.86599	125.761	0.25258	0.85475	125.725	0.25225	140
150	0.90726	127.592	0.25615	0.89526	127.558	0.25582	0.88355	127.524	0.25549	0.87213	127.490	0.25517	150
160	0.92506	129.359	0.25902	0.91286	129.326	0.25869	0.90097	129.294	0.25837	0.88937	129.262	0.25805	160
170	0.94273	131.133	0.26186	0.93034	131.102	0.26154	0.91826	131.071	0.26122	0.90647	131.040	0.26090	170
180	0.96028	132.915	0.26467	0.94770	132.885	0.26435	0.93543	132.856	0.26403	0.92346	132.826	0.26371	180
190	0.97772	134.705	0.26744	0.96495	134.677	0.26712	0.95249	134.648	0.26681	0.94033	134.620	0.26650	190
200	0.99506	136.503	0.27019	0.98209	136.476	0.26987	0.96944	136.449	0.26956	0.95710	136.422	0.26925	200
210	1.0123	138.310	0.27291	0.99915	138.284	0.27259	0.98631	138.258	0.27228	0.97379	138.232	0.27197	210
220	1.0295	140.126	0.27560	1.0161	140.101	0.27529	1.0031	140.077	0.27498	0.99038	140.052	0.27467	220
230	1.0466	141.952	0.27827	1.0330	141.928	0.27795	1.0198	141.904	0.27764	1.0069	141.880	0.27734	230
240	1.0636	143.786	0.28091	1.0498	143.763	0.28060	1.0364	143.740	0.28029	1.0233	143.717	0.27998	240
250	1.0805	145.631	0.28353	1.0666	145.608	0.28322	1.0530	145.586	0.28291	1.0397	145.564	0.28260	250
260	1.0974	147.485	0.28612	1.0833	147.463	0.28581	1.0695	147.442	0.28550	1.0560	147.420	0.28520	260
270	1.1142	149.348	0.28869	1.0999	149.328	0.28838	1.0859	149.307	0.28808	1.0723	149.286	0.28778	270
280	1.1310	151.222	0.29124	1.1165	151.202	0.29094	1.1023	151.182	0.29063	1.0885	151.162	0.29033	280
290	1.1477	153.106	0.29377	1.1330	153.087	0.29347	1.1187	153.067	0.29316	1.1046	153.048	0.29286	290
300	1.1644	155.000	0.29628	1.1495	154.981	0.29598	1.1349	154.962	0.29567	1.1207	154.944	0.29537	300
310	1.1811	156.904	0.29877	1.1659	156.885	0.29847	1.1512	156.867	0.29816	1.1368	156.849	0.29787	310
320	1.1976	158.818	0.30124	1.1823	158.800	0.30094	1.1674	158.782	0.30064	1.1528	158.765	0.30034	320
330	1.2142	160.742	0.30369	1.1987	160.725	0.30339	1.1836	160.708	0.30309	1.1688	160.691	0.30279	330
340	1.2307	162.676	0.30613	1.2150	162.660	0.30583	1.1997	162.643	0.30553	1.1848	162.627	0.30523	340

TEMP. °F	83			84			85			86			TEMP. °F
	68.304 (39.86 °F)			69.304 (40.54 °F)			70.304 (41.22 °F)			71.304 (41.90 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.65912)	(108.130)	(0.21989)	(0.65146)	(108.187)	(0.21976)	(0.64398)	(108.244)	(0.21964)	(0.63667)	(108.300)	(0.21951)	
40	0.65941	108.155	0.21994	—	—	—	—	—	—	—	—	—	40
50	0.67931	109.920	0.22344	0.67013	109.860	0.22308	0.66115	109.799	0.22272	0.65239	109.739	0.22236	50
60	0.69878	111.676	0.22685	0.68943	111.620	0.22650	0.68030	111.564	0.22614	0.67138	111.507	0.22579	60
70	0.71786	113.427	0.23019	0.70835	113.375	0.22984	0.69906	113.322	0.22949	0.68999	113.269	0.22915	70
80	0.73661	115.175	0.23346	0.72693	115.126	0.23312	0.71748	115.076	0.23278	0.70824	115.027	0.23244	80
90	0.75505	116.922	0.23667	0.74521	116.876	0.23633	0.73559	116.829	0.23599	0.72620	116.782	0.23566	90
100	0.77323	118.670	0.23982	0.76321	118.626	0.23948	0.75343	118.582	0.23915	0.74388	118.538	0.23883	100
110	0.79117	120.419	0.24291	0.78098	120.378	0.24259	0.77104	120.336	0.24226	0.76132	120.294	0.24194	110
120	0.80890	122.172	0.24596	0.79854	122.132	0.24564	0.78842	122.093	0.24532	0.77854	122.053	0.24500	120
130	0.82643	123.928	0.24897	0.81590	123.891	0.24865	0.80561	123.853	0.24833	0.79557	123.816	0.24801	130
140	0.84379	125.690	0.25193	0.83308	125.654	0.25161	0.82263	125.618	0.25130	0.81242	125.583	0.25098	140
150	0.86099	127.456	0.25485	0.85011	127.423	0.25454	0.83948	127.389	0.25422	0.82911	127.355	0.25392	150
160	0.87804	129.230	0.25774	0.86699	129.197	0.25742	0.85619	129.165	0.25711	0.84565	129.132	0.25681	160
170	0.89497	131.010	0.26059	0.88374	130.979	0.26028	0.87277	130.948	0.25997	0.86206	130.917	0.25966	170
180	0.91177	132.797	0.26340	0.90037	132.767	0.26309	0.88923	132.738	0.26279	0.87835	132.708	0.26249	180
190	0.92847	134.592	0.26619	0.91689	134.564	0.26588	0.90558	134.535	0.26558	0.89453	134.507	0.26528	190
200	0.94506	136.395	0.26894	0.93330	136.368	0.26864	0.92182	136.341	0.26833	0.91061	136.313	0.26804	200
210	0.96156	138.206	0.27167	0.94963	138.180	0.27136	0.93797	138.154	0.27106	0.92659	138.128	0.27077	210
220	0.97798	140.027	0.27436	0.96587	140.002	0.27406	0.95404	139.977	0.27376	0.94249	139.952	0.27347	220
230	0.99431	141.856	0.27703	0.98202	141.832	0.27673	0.97003	141.808	0.27644	0.95831	141.784	0.27614	230
240	1.0106	143.694	0.27968	0.99811	143.671	0.27938	0.98594	143.648	0.27909	0.97405	143.625	0.27879	240
250	1.0268	145.542	0.28230	1.0141	145.519	0.28201	1.0018	145.497	0.28171	0.98973	145.475	0.28142	250
260	1.0429	147.399	0.28490	1.0301	147.377	0.28461	1.0176	147.356	0.28431	1.0053	147.334	0.28402	260
270	1.0590	149.266	0.28748	1.0460	149.245	0.28718	1.0333	149.224	0.28689	1.0209	149.203	0.28660	270
280	1.0750	151.142	0.29003	1.0618	151.122	0.28974	1.0490	151.102	0.28945	1.0364	151.082	0.28916	280
290	1.0910	153.029	0.29256	1.0776	153.009	0.29227	1.0646	152.990	0.29198	1.0519	152.971	0.29169	290
300	1.1069	154.925	0.29508	1.0934	154.906	0.29478	1.0802	154.887	0.29450	1.0673	154.869	0.29421	300
310	1.1228	156.831	0.29757	1.1091	156.813	0.29728	1.0957	156.795	0.29699	1.0826	156.777	0.29670	310
320	1.1386	158.747	0.30004	1.1247	158.730	0.29975	1.1112	158.712	0.29947	1.0979	158.695	0.29918	320
330	1.1544	160.674	0.30250	1.1404	160.657	0.30221	1.1266	160.640	0.30192	1.1132	160.623	0.30164	330
340	1.1702	162.610	0.30494	1.1559	162.594	0.30465	1.1420	162.577	0.30436	1.1285	162.561	0.30408	340
350	—	—	—	1.1715	164.540	0.30707	1.1574	164.524	0.30678	1.1437	164.508	0.30650	350

TABLE II HCFC-22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	87			88			89			90			TEMP. °F
	72.304 (42.56 °F)			73.304 (43.23 °F)			74.304 (43.88 °F)			75.304 (44.53 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.62952)	(108.355)	(0.21939)	(0.62252)	(108.409)	(0.21927)	(0.61567)	(108.463)	(0.21914)	(0.60897)	(108.516)	(0.21903)	
50	0.64382	109.678	0.22200	0.63544	109.618	0.22165	0.62725	109.557	0.22130	0.61924	109.496	0.22096	50
60	0.66267	111.451	0.22545	0.65414	111.394	0.22510	0.64581	111.337	0.22476	0.63766	111.280	0.22443	60
70	0.68112	113.216	0.22881	0.67245	113.163	0.22848	0.66397	113.110	0.22814	0.65568	113.056	0.22781	70
80	0.69922	114.977	0.23211	0.69040	114.927	0.23178	0.68178	114.877	0.23145	0.67334	114.827	0.23112	80
90	0.71702	116.736	0.23533	0.70804	116.689	0.23501	0.69927	116.642	0.23469	0.69069	116.594	0.23437	90
100	0.73454	118.494	0.23850	0.72541	118.449	0.23818	0.71649	118.405	0.23787	0.70777	118.360	0.23755	100
110	0.75182	120.253	0.24162	0.74254	120.211	0.24130	0.73347	120.169	0.24099	0.72459	120.127	0.24068	110
120	0.76888	122.014	0.24468	0.75945	121.974	0.24437	0.75022	121.934	0.24406	0.74120	121.894	0.24376	120
130	0.78575	123.778	0.24770	0.77615	123.741	0.24739	0.76677	123.703	0.24709	0.75760	123.665	0.24678	130
140	0.80244	125.547	0.25068	0.79269	125.511	0.25037	0.78315	125.475	0.25007	0.77383	125.439	0.24977	140
150	0.81897	127.321	0.25361	0.80905	127.286	0.25331	0.79937	127.252	0.25301	0.78989	127.218	0.25271	150
160	0.83535	129.100	0.25650	0.82528	129.068	0.25620	0.81543	129.035	0.25591	0.80581	129.002	0.25561	160
170	0.85160	130.886	0.25936	0.84137	130.855	0.25906	0.83137	130.824	0.25877	0.82159	130.793	0.25848	170
180	0.86772	132.678	0.26219	0.85733	132.649	0.26189	0.84718	132.619	0.26160	0.83725	132.589	0.26131	180
190	0.88374	134.479	0.26498	0.87319	134.450	0.26469	0.86288	134.422	0.26439	0.85279	134.393	0.26411	190
200	0.89965	136.286	0.26774	0.88894	136.259	0.26745	0.87847	136.232	0.26716	0.86824	136.205	0.26687	200
210	0.91547	138.102	0.27047	0.90460	138.076	0.27018	0.89398	138.050	0.26989	0.88359	138.024	0.26961	210
220	0.93120	139.927	0.27318	0.92017	139.901	0.27289	0.90939	139.876	0.27260	0.89885	139.851	0.27232	220
230	0.94686	141.760	0.27585	0.93567	141.735	0.27557	0.92473	141.711	0.27528	0.91403	141.687	0.27500	230
240	0.96244	143.601	0.27851	0.95109	143.578	0.27822	0.93999	143.555	0.27794	0.92914	143.532	0.27766	240
250	0.97795	145.453	0.28113	0.96644	145.430	0.28085	0.95519	145.408	0.28057	0.94418	145.385	0.28029	250
260	0.99340	147.313	0.28374	0.98173	147.291	0.28345	0.97032	147.270	0.28317	0.95916	147.248	0.28289	260
270	1.0088	149.183	0.28632	0.99696	149.162	0.28603	0.98539	149.141	0.28575	0.97408	149.120	0.28548	270
280	1.0241	151.062	0.28887	1.0121	151.042	0.28859	1.0004	151.022	0.28831	0.98894	151.002	0.28804	280
290	1.0394	152.951	0.29141	1.0273	152.932	0.29113	1.0154	152.912	0.29085	1.0038	152.893	0.29058	290
300	1.0457	154.850	0.29393	1.0423	154.831	0.29365	1.0303	154.812	0.29337	1.0185	154.794	0.29309	300
310	1.0698	156.759	0.29642	1.0574	156.740	0.29614	1.0452	156.722	0.29587	1.0332	156.704	0.29559	310
320	1.0850	158.677	0.29890	1.0724	158.660	0.29862	1.0600	158.642	0.29834	1.0479	158.624	0.29807	320
330	1.1001	160.606	0.30136	1.0873	160.589	0.30108	1.0748	160.571	0.30080	1.0626	160.554	0.30053	330
340	1.1152	162.544	0.30380	1.1022	162.527	0.30352	1.0896	162.511	0.30324	1.0772	162.494	0.30297	340
350	1.1302	164.492	0.30622	1.1171	164.476	0.30594	1.1043	164.460	0.30567	1.0917	164.444	0.30540	350

TEMP. °F	91			92			93			94			TEMP. °F
	76.304 (45.18 °F)			77.304 (45.82 °F)			78.304 (46.46 °F)			79.304 (47.09 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.60242)	(108.568)	(0.21891)	(0.59600)	(108.620)	(0.21879)	(0.58971)	(108.671)	(0.21867)	(0.58355)	(108.722)	(0.21856)	
50	0.61140	109.434	0.22061	0.60372	109.373	0.22027	0.59621	109.311	0.21993	0.58885	109.249	0.21960	50
60	0.62969	111.223	0.22409	0.62188	111.165	0.22376	0.61424	111.108	0.22343	0.60676	111.050	0.22310	60
70	0.64757	113.003	0.22748	0.63963	112.949	0.22716	0.63186	112.895	0.22683	0.62425	112.841	0.22651	70
80	0.66509	114.777	0.23080	0.65702	114.726	0.23048	0.64912	114.676	0.23016	0.64138	114.625	0.22985	80
90	0.68230	116.547	0.23405	0.67409	116.500	0.23374	0.66605	116.452	0.23342	0.65818	116.405	0.23311	90
100	0.69923	118.316	0.23724	0.69088	118.271	0.23693	0.68271	118.226	0.23662	0.67471	118.182	0.23632	100
110	0.71591	120.085	0.24037	0.70742	120.042	0.24007	0.69911	120.000	0.23976	0.69097	119.958	0.23946	110
120	0.73237	121.855	0.24345	0.72374	121.815	0.24315	0.71529	121.775	0.24285	0.70702	121.734	0.24255	120
130	0.74863	123.627	0.24648	0.73985	123.589	0.24619	0.73126	123.551	0.24589	0.72286	123.513	0.24560	130
140	0.76471	125.403	0.24947	0.75579	125.367	0.24917	0.74706	125.331	0.24888	0.73851	125.295	0.24859	140
150	0.78063	127.184	0.25241	0.77156	127.150	0.25212	0.76269	127.115	0.25183	0.75400	127.081	0.25155	150
160	0.79639	128.970	0.25532	0.78718	128.937	0.25503	0.77817	128.904	0.25474	0.76935	128.872	0.25446	160
170	0.81203	130.761	0.25819	0.80267	130.730	0.25790	0.79351	130.699	0.25762	0.78455	130.668	0.25734	170
180	0.82754	132.560	0.26102	0.81803	132.530	0.26074	0.80874	132.500	0.26045	0.79964	132.470	0.26018	180
190	0.84293	134.365	0.26382	0.83329	134.336	0.26354	0.82385	134.308	0.26326	0.81460	134.279	0.26298	190
200	0.85823	136.177	0.26659	0.84843	136.150	0.26631	0.83885	136.123	0.26603	0.82947	136.095	0.26576	200
210	0.87343	137.998	0.26933	0.86349	137.971	0.26905	0.85376	137.945	0.26877	0.84424	137.919	0.26850	210
220	0.88854	139.826	0.27204	0.87845	139.801	0.27176	0.86858	139.776	0.27149	0.85892	139.751	0.27121	220
230	0.90357	141.663	0.27472	0.89334	141.639	0.27445	0.88332	141.615	0.27417	0.87352	141.590	0.27390	230
240	0.91853	143.509	0.27738	0.90815	143.485	0.27710	0.89799	143.462	0.27683	0.88805	143.439	0.27656	240
250	0.93342	145.363	0.28001	0.92289	145.341	0.27974	0.91259	145.318	0.27947	0.90251	145.296	0.27920	250
260	0.94825	147.227	0.28262	0.93757	147.205	0.28234	0.92713	147.183	0.28208	0.91690	147.162	0.28181	260
270	0.96301	149.100	0.28520	0.95219	149.079	0.28493	0.94160	149.058	0.28466	0.93124	149.037	0.28440	270
280	0.97773	150.982	0.28776	0.96676	150.962	0.28749	0.95602	150.942	0.28723	0.94552	150.921	0.28696	280
290	0.99239	152.873	0.29030	0.98127	152.854	0.29003	0.97039	152.835	0.28977	0.95974	152.815	0.28950	290
300	1.0070	154.775	0.29282	0.99574	154.756	0.29255	0.98471	154.737	0.29229	0.97393	154.718	0.29203	300
310	1.0216	156.686	0.29532	1.0102	156.668	0.29505	0.99899	156.650	0.29479	0.98806	156.631	0.29453	310
320	1.0361	158.607	0.29780	1.0245	158.589	0.29753	1.0132	158.571	0.29727	1.0022	158.554	0.29701	320
330	1.0506	160.537	0.30026	1.0389	160.520	0.30000	1.0274	160.503	0.29973	1.0162	160.486	0.29947	330
340	1.0650	162.478	0.30270	1.0532	162.461	0.30244	1.0416	162.445	0.30218	1.0302	162.428	0.30191	340
350	1.0795	164.428	0.30513	1.0675	164.412	0.30486	1.0557	164.396	0.30460	1.0442	164.380	0.30434	350

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	95			96			97			98			TEMP. °F
	80.304 (47.71 °F)			81.304 (48.33 °F)			82.304 (48.95 °F)			83.304 (49.56 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.57751)	(108.772)	(0.21845)	(0.57160)	(108.821)	(0.21833)	(0.56580)	(108.870)	(0.21822)	(0.56012)	(108.918)	(0.21811)	
50	0.58165	109.187	0.21926	0.57459	109.124	0.21893	0.56767	109.061	0.21860	0.56090	108.999	0.21827	50
60	0.59944	110.992	0.22277	0.59227	110.934	0.22245	0.58524	110.876	0.22212	0.57835	110.817	0.22181	60
70	0.61681	112.787	0.22619	0.60951	112.733	0.22588	0.60236	112.678	0.22556	0.59536	112.624	0.22525	70
80	0.63381	114.575	0.22953	0.62639	114.524	0.22922	0.61912	114.473	0.22892	0.61200	114.422	0.22861	80
90	0.65048	116.357	0.23281	0.64294	116.309	0.23250	0.63555	116.261	0.23220	0.62831	116.213	0.23190	90
100	0.66687	118.137	0.23602	0.65920	118.092	0.23572	0.65158	118.047	0.23542	0.64432	118.001	0.23512	100
110	0.68301	119.915	0.23917	0.67521	119.873	0.23887	0.66757	119.830	0.23858	0.66008	119.787	0.23829	110
120	0.69892	121.694	0.24226	0.69099	121.654	0.24197	0.68322	121.614	0.24168	0.67561	121.573	0.24139	120
130	0.71462	123.475	0.24531	0.70656	123.437	0.24502	0.69867	123.399	0.24473	0.69093	123.361	0.24445	130
140	0.73015	125.259	0.24831	0.72195	125.223	0.24802	0.71393	125.186	0.24774	0.70607	125.150	0.24746	140
150	0.74550	127.047	0.25126	0.73718	127.012	0.25098	0.72902	126.978	0.25070	0.72104	126.943	0.25043	150
160	0.76071	128.839	0.25418	0.75225	128.806	0.25390	0.74397	128.773	0.25362	0.73585	128.740	0.25335	160
170	0.77578	130.637	0.25706	0.76719	130.605	0.25678	0.75878	130.574	0.25651	0.75053	130.542	0.25623	170
180	0.79073	132.440	0.25990	0.78200	132.410	0.25962	0.77346	132.380	0.25935	0.76509	132.350	0.25908	180
190	0.80556	134.251	0.26271	0.79670	134.222	0.26243	0.78803	134.193	0.26216	0.77953	134.165	0.26190	190
200	0.82029	136.068	0.26548	0.81130	136.041	0.26521	0.80249	136.013	0.26494	0.79386	135.986	0.26468	200
210	0.83492	137.893	0.26823	0.82579	137.866	0.26796	0.81685	137.840	0.26769	0.80810	137.814	0.26743	210
220	0.84946	139.725	0.27094	0.84020	139.700	0.27068	0.83113	139.675	0.27041	0.82225	139.650	0.27015	220
230	0.86393	141.566	0.27363	0.85453	141.542	0.27337	0.84533	141.518	0.27310	0.83632	141.493	0.27284	230
240	0.87832	143.416	0.27629	0.86879	143.392	0.27603	0.85945	143.369	0.27577	0.85031	143.345	0.27551	240
250	0.89264	145.273	0.27893	0.88297	145.251	0.27867	0.87351	145.229	0.27841	0.86423	145.206	0.27815	250
260	0.90689	147.140	0.28154	0.89709	147.119	0.28128	0.88749	147.097	0.28102	0.87809	147.075	0.28076	260
270	0.92109	149.016	0.28413	0.91115	148.995	0.28387	0.90142	148.974	0.28361	0.89189	148.953	0.28336	270
280	0.93523	150.901	0.28670	0.92516	150.881	0.28644	0.91530	150.861	0.28618	0.90564	150.841	0.28593	280
290	0.94932	152.796	0.28924	0.93912	152.776	0.28898	0.92912	152.757	0.28873	0.91933	152.737	0.28847	290
300	0.96336	154.700	0.29176	0.95302	154.681	0.29151	0.94289	154.662	0.29125	0.93297	154.643	0.29100	300
310	0.97736	156.613	0.29427	0.96689	156.595	0.29401	0.95663	156.577	0.29375	0.94657	156.558	0.29350	310
320	0.99132	158.536	0.29675	0.98071	158.519	0.29649	0.97031	158.501	0.29624	0.96013	158.483	0.29599	320
330	1.0052	160.469	0.29921	0.99449	160.452	0.29896	0.98396	160.435	0.29870	0.97365	160.418	0.29845	330
340	1.0191	162.411	0.30166	1.0082	162.395	0.30140	0.99758	162.378	0.30115	0.98714	162.362	0.30090	340
350	1.0330	164.364	0.30408	1.0220	164.348	0.30383	1.0112	164.332	0.30358	1.0006	164.315	0.30333	350

TEMP. °F	99			100			101			102			TEMP. °F
	84.304 (50.16 °F)			85.304 (50.77 °F)			86.304 (51.36 °F)			87.304 (51.96 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.55455)	(108.966)	(0.21800)	(0.54908)	(109.013)	(0.21790)	(0.54372)	(109.059)	(0.21779)	(0.53846)	(109.105)	(0.21768)	
60	0.57160	110.759	0.22149	0.56498	110.700	0.22117	0.55849	110.641	0.22086	0.55212	110.582	0.22055	60
70	0.58850	112.569	0.22494	0.58177	112.514	0.22463	0.57517	112.459	0.22432	0.56870	112.404	0.22402	70
80	0.60502	114.370	0.22831	0.59818	114.319	0.22801	0.59147	114.267	0.22771	0.58489	114.216	0.22741	80
90	0.62121	116.165	0.23160	0.61425	116.117	0.23131	0.60743	116.069	0.23101	0.60074	116.020	0.23072	90
100	0.63711	117.956	0.23483	0.63003	117.911	0.23454	0.62310	117.865	0.23425	0.61630	117.819	0.23397	100
110	0.65274	119.745	0.23800	0.64555	119.702	0.23771	0.63850	119.659	0.23743	0.63159	119.616	0.23715	110
120	0.66815	121.533	0.24111	0.66084	121.492	0.24083	0.65368	121.452	0.24055	0.64665	121.411	0.24027	120
130	0.68335	123.322	0.24417	0.67592	123.284	0.24389	0.66864	123.245	0.24362	0.66150	123.207	0.24334	130
140	0.69836	125.114	0.24718	0.69081	125.077	0.24691	0.68341	125.041	0.24664	0.67616	125.004	0.24636	140
150	0.71321	126.908	0.25015	0.70554	126.874	0.24988	0.69802	126.839	0.24961	0.69064	126.804	0.24934	150
160	0.72790	128.707	0.25308	0.72011	128.674	0.25281	0.71247	128.641	0.25254	0.70498	128.608	0.25228	160
170	0.74246	130.511	0.25597	0.73454	130.480	0.25570	0.72678	130.448	0.25543	0.71917	130.417	0.25517	170
180	0.75689	132.320	0.25882	0.74885	132.290	0.25855	0.74097	132.260	0.25829	0.73324	132.230	0.25803	180
190	0.77120	134.136	0.26163	0.76304	134.107	0.26137	0.75504	134.078	0.26111	0.74719	134.050	0.26085	190
200	0.78541	135.958	0.26442	0.77712	135.931	0.26415	0.76900	135.903	0.26390	0.76104	135.875	0.26364	200
210	0.79952	137.787	0.26717	0.79111	137.761	0.26691	0.78287	137.735	0.26665	0.77479	137.708	0.26640	210
220	0.81354	139.624	0.26989	0.80510	139.599	0.26963	0.79665	139.574	0.26938	0.78845	139.548	0.26912	220
230	0.82748	141.469	0.27258	0.81883	141.445	0.27233	0.81034	141.420	0.27207	0.80202	141.396	0.27182	230
240	0.84135	143.322	0.27525	0.83257	143.299	0.27500	0.82396	143.275	0.27474	0.81552	143.252	0.27449	240
250	0.85515	145.184	0.27789	0.84624	145.161	0.27764	0.83751	145.138	0.27739	0.82896	145.116	0.27714	250
260	0.86888	147.054	0.28051	0.85985	147.032	0.28026	0.85100	147.010	0.28001	0.84232	146.988	0.27976	260
270	0.88255	148.933	0.28310	0.87340	148.912	0.28285	0.86443	148.891	0.28260	0.85563	148.870	0.28236	270
280	0.89617	150.821	0.28567	0.88689	150.800	0.28542	0.87780	150.780	0.28517	0.86888	150.760	0.28493	280
290	0.90973	152.718	0.28822	0.90033	152.698	0.28797	0.89112	152.679	0.28772	0.88208	152.659	0.28748	290
300	0.92325	154.624	0.29075	0.91372	154.605	0.29050	0.90439	154.586	0.29025	0.89523	154.568	0.29001	300
310	0.93672	156.540	0.29325	0.92707	156.522	0.29300	0.91761	156.504	0.29276	0.90834	156.485	0.29252	310
320	0.95016	158.466	0.29574	0.94038	158.448	0.29549	0.93080	158.430	0.29525	0.92140	158.412	0.29500	320
330	0.96355	160.400	0.29820	0.95365	160.383	0.29796	0.94394	160.366	0.29771	0.93443	160.349	0.29747	330
340	0.97691	162.345	0.30065	0.96688	162.328	0.30040	0.95705	162.312	0.30016	0.94742	162.295	0.29992	340
350	0.99023	164.299	0.30308	0.98008	164.283	0.30283	0.97013	164.267	0.30259	0.96037	164.251	0.30235	350
360	1.0035	166.263	0.30549	0.99324	166.248	0.30525	0.98317	166.232	0.30500	0.97329	166.216	0.30476	360

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	103			104			105			106			TEMP. °F
	88.304			89.304			90.304			91.304			
	(52.55 °F)			(53.13 °F)			(53.71 °F)			(54.28 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.53330)	(109.151)	(0.21758)	(0.52823)	(109.196)	(0.21748)	(0.52326)	(109.241)	(0.21737)	(0.51837)	(109.285)	(0.21727)	
60	0.54587	110.522	0.22024	0.53974	110.462	0.21993	0.53373	110.403	0.21962	0.52783	110.343	0.21932	60
70	0.56235	112.349	0.22372	0.55612	112.293	0.22342	0.55001	112.237	0.22312	0.54401	112.182	0.22282	70
80	0.57844	114.164	0.22711	0.57211	114.112	0.22682	0.56590	114.060	0.22653	0.55980	114.008	0.22624	80
90	0.59418	115.972	0.23043	0.58775	115.923	0.23014	0.58144	115.874	0.22986	0.57524	115.825	0.22958	90
100	0.60963	117.774	0.23368	0.60309	117.728	0.23340	0.59667	117.682	0.23312	0.59037	117.636	0.23284	100
110	0.62481	119.573	0.23687	0.61816	119.530	0.23659	0.61164	119.486	0.23631	0.60524	119.443	0.23604	110
120	0.63976	121.370	0.24000	0.63300	121.330	0.23972	0.62637	121.289	0.23945	0.61986	121.248	0.23918	120
130	0.65449	123.168	0.24307	0.64762	123.130	0.24280	0.64088	123.091	0.24253	0.63427	123.052	0.24227	130
140	0.66904	124.968	0.24610	0.66206	124.931	0.24583	0.65521	124.894	0.24556	0.64849	124.858	0.24530	140
150	0.68341	126.770	0.24908	0.67632	126.735	0.24881	0.66936	126.700	0.24855	0.66254	126.665	0.24829	150
160	0.69763	128.575	0.25201	0.69043	128.542	0.25175	0.68336	128.509	0.25149	0.67642	128.475	0.25124	160
170	0.71171	130.385	0.25491	0.70440	130.353	0.25465	0.69722	130.322	0.25440	0.69017	130.290	0.25414	170
180	0.72567	132.200	0.25777	0.71823	132.170	0.25751	0.71094	132.140	0.25726	0.70379	132.109	0.25701	180
190	0.73950	134.021	0.26059	0.73196	133.992	0.26034	0.72456	133.963	0.26009	0.71729	133.934	0.25984	190
200	0.75323	135.848	0.26339	0.74557	135.820	0.26313	0.73806	135.793	0.26288	0.73069	135.765	0.26264	200
210	0.76686	137.682	0.26614	0.75909	137.655	0.26589	0.75147	137.629	0.26565	0.74399	137.602	0.26540	210
220	0.78041	139.523	0.26887	0.77252	139.498	0.26862	0.76478	139.472	0.26838	0.75719	139.447	0.26813	220
230	0.79387	141.372	0.27157	0.78587	141.347	0.27133	0.77802	141.323	0.27108	0.77032	141.299	0.27084	230
240	0.80725	143.228	0.27425	0.79914	143.205	0.27400	0.79117	143.182	0.27376	0.78336	143.158	0.27351	240
250	0.82056	145.093	0.27689	0.81233	145.071	0.27665	0.80426	145.048	0.27641	0.79634	145.026	0.27616	250
260	0.83381	146.967	0.27951	0.82547	146.945	0.27927	0.81728	146.923	0.27903	0.80925	146.901	0.27879	260
270	0.84700	148.849	0.28211	0.83854	148.828	0.28187	0.83024	148.807	0.28163	0.82210	148.786	0.28139	270
280	0.86014	150.740	0.28468	0.85156	150.719	0.28444	0.84315	150.699	0.28420	0.83490	150.679	0.28397	280
290	0.87322	152.640	0.28724	0.86453	152.620	0.28700	0.85600	152.600	0.28676	0.84764	152.581	0.28652	290
300	0.88625	154.549	0.28977	0.87745	154.530	0.28953	0.86881	154.511	0.28929	0.86034	154.492	0.28905	300
310	0.89924	156.467	0.29227	0.89032	156.449	0.29204	0.88157	156.430	0.29180	0.87298	156.412	0.29156	310
320	0.91219	158.395	0.29476	0.90315	158.377	0.29452	0.89429	158.359	0.29429	0.88559	158.342	0.29405	320
330	0.92510	160.332	0.29723	0.91595	160.315	0.29699	0.90697	160.298	0.29676	0.89816	160.280	0.29653	330
340	0.93797	162.279	0.29968	0.92870	162.262	0.29944	0.91961	162.245	0.29921	0.91069	162.229	0.29898	340
350	0.95081	164.235	0.30211	0.94142	164.219	0.30188	0.93222	164.202	0.30164	0.92319	164.186	0.30141	350
360	0.96361	166.200	0.30453	0.95411	166.185	0.30429	0.94480	166.169	0.30406	0.93566	166.153	0.30382	360

TEMP. °F	107			108			109			110			TEMP. °F
	92.304			93.304			94.304			95.304			
	(54.86 °F)			(55.42 °F)			(55.99 °F)			(56.55 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.51358)	(109.328)	(0.21717)	(0.50886)	(109.371)	(0.21707)	(0.50424)	(109.414)	(0.21697)	(0.49969)	(109.456)	(0.21687)	
60	0.52203	110.282	0.21902	0.51634	110.222	0.21871	0.51075	110.161	0.21841	0.50526	110.101	0.21812	60
70	0.53812	112.125	0.22253	0.53234	112.069	0.22223	0.52667	112.013	0.22194	0.52109	111.956	0.22165	70
80	0.55382	113.956	0.22595	0.54794	113.903	0.22566	0.54217	113.850	0.22538	0.53651	113.798	0.22510	80
90	0.56916	115.776	0.22929	0.56319	115.727	0.22901	0.55732	115.678	0.22874	0.55156	115.628	0.22846	90
100	0.58419	117.590	0.23256	0.57812	117.544	0.23229	0.57216	117.498	0.23202	0.56631	117.451	0.23174	100
110	0.59895	119.400	0.23577	0.59278	119.356	0.23550	0.58673	119.312	0.23523	0.58078	119.269	0.23496	110
120	0.61347	121.207	0.23891	0.60720	121.166	0.23865	0.60105	121.125	0.23838	0.59501	121.083	0.23812	120
130	0.62778	123.013	0.24200	0.62141	122.975	0.24174	0.61515	122.936	0.24148	0.60901	122.897	0.24122	130
140	0.64189	124.821	0.24504	0.63542	124.784	0.24478	0.62907	124.747	0.24453	0.62282	124.710	0.24427	140
150	0.65583	126.630	0.24803	0.64926	126.595	0.24778	0.64280	126.560	0.24752	0.63646	126.525	0.24727	150
160	0.66962	128.442	0.25098	0.66294	128.409	0.25073	0.65638	128.375	0.25048	0.64994	128.342	0.25023	160
170	0.68326	130.258	0.25389	0.67648	130.226	0.25364	0.66981	130.195	0.25339	0.66327	130.163	0.25314	170
180	0.69677	132.079	0.25676	0.68988	132.049	0.25651	0.68312	132.018	0.25626	0.67648	131.988	0.25602	180
190	0.71017	133.905	0.25959	0.70317	133.876	0.25935	0.69631	133.847	0.25910	0.68956	133.818	0.25886	190
200	0.72346	135.737	0.26239	0.71636	135.710	0.26215	0.70939	135.682	0.26190	0.70254	135.654	0.26166	200
210	0.73664	137.576	0.26516	0.72944	137.549	0.26491	0.72237	137.523	0.26467	0.71542	137.496	0.26443	210
220	0.74974	139.421	0.26789	0.74243	139.396	0.26765	0.73525	139.370	0.26741	0.72821	139.345	0.26717	220
230	0.76276	141.274	0.27060	0.75534	141.250	0.27036	0.74806	141.225	0.27012	0.74091	141.201	0.26989	230
240	0.77570	143.135	0.27327	0.76817	143.111	0.27304	0.76079	143.087	0.27280	0.75354	143.064	0.27257	240
250	0.78857	145.003	0.27593	0.78094	144.980	0.27569	0.77345	144.958	0.27546	0.76609	144.935	0.27522	250
260	0.80137	146.880	0.27855	0.79363	146.858	0.27832	0.78604	146.836	0.27808	0.77858	146.814	0.27785	260
270	0.81411	148.765	0.28115	0.80627	148.744	0.28092	0.79857	148.723	0.28069	0.79101	148.702	0.28046	270
280	0.82680	150.659	0.28373	0.81885	150.638	0.28350	0.81105	150.618	0.28327	0.80338	150.598	0.28304	280
290	0.83943	152.561	0.28629	0.83138	152.542	0.28605	0.82347	152.522	0.28582	0.81570	152.502	0.28560	290
300	0.85202	154.473	0.28882	0.84386	154.454	0.28859	0.83584	154.435	0.28836	0.82798	154.416	0.28813	300
310	0.86456	156.394	0.29133	0.85629	156.375	0.29110	0.84817	156.357	0.29087	0.84020	156.339	0.29065	310
320	0.87706	158.324	0.29382	0.86868	158.306	0.29359	0.86046	158.288	0.29336	0.85239	158.271	0.29314	320
330	0.88952	160.263	0.29629	0.88103	160.246	0.29607	0.87271	160.229	0.29584	0.86453	160.212	0.29561	330
340	0.90194	162.212	0.29875	0.89335	162.195	0.29852	0.88492	162.179	0.29829	0.87664	162.162	0.29807	340
350	0.91433	164.170	0.30118	0.90563	164.154	0.30095	0.89709	164.138	0.30073	0.88871	164.121	0.30050	350
360	0.92669	166.138	0.30360	0.91788	166.122	0.30337	0.90924	166.106	0.30314	0.90075	166.091	0.30292	360

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	111			112			114			116			TEMP. °F
	96.304			97.304			99.304			101.304			
	(57.11 °F)			(57.66 °F)			(58.75 °F)			(59.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.49522)	(109.498)	(0.21677)	(0.49082)	(109.539)	(0.21668)	(0.48226)	(109.620)	(0.21649)	(0.47398)	(109.700)	(0.21630)	
60	0.49986	110.040	0.21782	0.49456	109.978	0.21753	0.48423	109.855	0.21694	0.47425	109.731	0.21636	60
70	0.51561	111.900	0.22137	0.51023	111.843	0.22108	0.49974	111.729	0.22051	0.48960	111.614	0.21995	70
80	0.53094	113.745	0.22482	0.52547	113.692	0.22454	0.51482	113.585	0.22398	0.50452	113.478	0.22344	80
90	0.54591	115.579	0.22818	0.54035	115.529	0.22791	0.52953	115.430	0.22737	0.51907	115.329	0.22683	90
100	0.56056	117.405	0.23148	0.55492	117.358	0.23121	0.54392	117.265	0.23068	0.53329	117.171	0.23015	100
110	0.57494	119.225	0.23470	0.56920	119.181	0.23444	0.55802	119.093	0.23392	0.54723	119.005	0.23340	110
120	0.58907	121.042	0.23786	0.58324	121.001	0.23760	0.57188	120.918	0.23709	0.56091	120.834	0.23659	120
130	0.60298	122.857	0.24097	0.59705	122.818	0.24071	0.58551	122.740	0.24021	0.57437	122.661	0.23971	130
140	0.61670	124.673	0.24402	0.61068	124.636	0.24377	0.59895	124.561	0.24327	0.58763	124.487	0.24278	140
150	0.63023	126.490	0.24702	0.62412	126.454	0.24678	0.61221	126.384	0.24628	0.60070	126.313	0.24580	150
160	0.64361	128.309	0.24998	0.63740	128.275	0.24974	0.62530	128.208	0.24925	0.61362	128.141	0.24877	160
170	0.65685	130.131	0.25290	0.65054	130.099	0.25266	0.63826	130.035	0.25218	0.62639	129.971	0.25170	170
180	0.66996	131.958	0.25578	0.66355	131.927	0.25554	0.65108	131.866	0.25506	0.63903	131.805	0.25459	180
190	0.68294	133.789	0.25862	0.67644	133.760	0.25838	0.66377	133.702	0.25791	0.65154	133.643	0.25744	190
200	0.69582	135.626	0.26142	0.68922	135.598	0.26119	0.67636	135.543	0.26072	0.66395	135.487	0.26026	200
210	0.70860	137.469	0.26420	0.70190	137.443	0.26396	0.68885	137.389	0.26350	0.67626	137.336	0.26304	210
220	0.72129	139.319	0.26694	0.71449	139.294	0.26671	0.70125	139.242	0.26625	0.68847	139.191	0.26579	220
230	0.73389	141.176	0.26965	0.72699	141.151	0.26942	0.71357	141.102	0.26896	0.70060	141.053	0.26851	230
240	0.74642	143.040	0.27234	0.73942	143.017	0.27211	0.72580	142.969	0.27165	0.71265	142.922	0.27120	240
250	0.75887	144.912	0.27499	0.75178	144.890	0.27476	0.73797	144.844	0.27431	0.72463	144.799	0.27386	250
260	0.77126	146.792	0.27762	0.76407	146.770	0.27739	0.75006	146.727	0.27694	0.73654	146.683	0.27650	260
270	0.78359	148.681	0.28023	0.77630	148.660	0.28000	0.76210	148.617	0.27955	0.74839	148.575	0.27911	270
280	0.79586	150.577	0.28281	0.78847	150.557	0.28258	0.77408	150.516	0.28214	0.76019	150.476	0.28170	280
290	0.80808	152.483	0.28537	0.80059	152.463	0.28514	0.78601	152.424	0.28470	0.77193	152.385	0.28426	290
300	0.82025	154.397	0.28791	0.81266	154.378	0.28768	0.79789	154.340	0.28724	0.78362	154.302	0.28680	300
310	0.83238	156.320	0.29042	0.82469	156.302	0.29020	0.80972	156.265	0.28976	0.79527	156.228	0.28932	310
320	0.84446	158.253	0.29291	0.83667	158.235	0.29269	0.82151	158.199	0.29225	0.80687	158.164	0.29182	320
330	0.85650	160.194	0.29539	0.84862	160.177	0.29517	0.83326	160.143	0.29473	0.81843	160.108	0.29430	330
340	0.86851	162.145	0.29784	0.86052	162.128	0.29762	0.84497	162.095	0.29719	0.82996	162.062	0.29676	340
350	0.88048	164.105	0.30028	0.87240	164.089	0.30006	0.85665	164.057	0.29962	0.84145	164.024	0.29920	350
360	0.89242	166.075	0.30270	0.88424	166.059	0.30248	0.86830	166.028	0.30204	0.85291	165.996	0.30162	360

TEMP. °F	118			120			122			124			TEMP. °F
	103.304			105.304			107.304			109.304			
	(60.90 °F)			(61.95 °F)			(62.99 °F)			(64.02 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.46597)	(109.775)	(0.21611)	(0.45822)	(109.853)	(0.21593)	(0.45071)	(109.928)	(0.21575)	(0.44344)	(110.001)	(0.21558)	
70	0.47980	111.498	0.21939	0.47032	111.381	0.21884	0.46113	111.264	0.21829	0.45224	111.146	0.21775	70
80	0.49457	113.371	0.22289	0.48494	113.262	0.22236	0.47562	113.153	0.22183	0.46659	113.044	0.22130	80
90	0.50896	115.229	0.22630	0.49918	115.128	0.22578	0.48972	115.026	0.22526	0.48055	114.924	0.22475	90
100	0.52302	117.076	0.22964	0.51309	116.982	0.22912	0.50347	116.886	0.22862	0.49417	116.791	0.22812	100
110	0.53679	118.916	0.23289	0.52670	118.827	0.23239	0.51693	118.738	0.23190	0.50748	118.648	0.23141	110
120	0.55031	120.751	0.23609	0.54005	120.667	0.23559	0.53013	120.583	0.23511	0.52053	120.498	0.23463	120
130	0.56360	122.582	0.23922	0.55318	122.503	0.23873	0.54310	122.423	0.23825	0.53335	122.343	0.23778	130
140	0.57668	124.412	0.24230	0.56610	124.337	0.24182	0.55587	124.262	0.24135	0.54596	124.186	0.24088	140
150	0.58959	126.242	0.24532	0.57884	126.171	0.24485	0.56844	126.099	0.24439	0.55838	126.028	0.24393	150
160	0.60233	128.073	0.24830	0.59142	128.005	0.24784	0.58086	127.938	0.24738	0.57064	127.870	0.24692	160
170	0.61493	129.907	0.25124	0.60384	129.842	0.25078	0.59312	129.778	0.25032	0.58274	129.713	0.24987	170
180	0.62739	131.744	0.25413	0.61613	131.682	0.25368	0.60525	131.621	0.25323	0.59471	131.559	0.25278	180
190	0.63973	133.585	0.25699	0.62830	133.526	0.25654	0.61725	133.467	0.25609	0.60656	133.408	0.25565	190
200	0.65196	135.431	0.25981	0.64036	135.375	0.25936	0.62915	135.318	0.25892	0.61829	135.262	0.25848	200
210	0.66409	137.282	0.26259	0.65232	137.229	0.26215	0.64094	137.175	0.26171	0.62992	137.121	0.26128	210
220	0.67612	139.140	0.26535	0.66418	139.088	0.26490	0.65263	139.037	0.26447	0.64146	138.985	0.26404	220
230	0.68807	141.004	0.26807	0.67596	140.954	0.26763	0.66425	140.905	0.26720	0.65291	140.855	0.26677	230
240	0.69994	142.875	0.27076	0.68766	142.827	0.27033	0.67578	142.780	0.26990	0.66428	142.732	0.26948	240
250	0.71174	144.753	0.27343	0.69929	144.707	0.27299	0.68724	144.662	0.27257	0.67558	144.616	0.27215	250
260	0.72348	146.639	0.27607	0.71085	146.595	0.27564	0.69863	146.551	0.27521	0.68681	146.507	0.27479	260
270	0.73515	148.533	0.27868	0.72235	148.490	0.27825	0.70996	148.448	0.27783	0.69798	148.406	0.27741	270
280	0.74676	150.435	0.28127	0.73379	150.394	0.28084	0.72123	150.353	0.28042	0.70909	150.312	0.28001	280
290	0.75832	152.345	0.28383	0.74517	152.306	0.28341	0.73245	152.266	0.28299	0.72014	152.227	0.28258	290
300	0.76984	154.264	0.28638	0.75651	154.226	0.28595	0.74362	154.188	0.28554	0.73115	154.150	0.28513	300
310	0.78130	156.192	0.28890	0.76780	156.155	0.28848	0.75475	156.118	0.28806	0.74211	156.081	0.28765	310
320	0.79273	158.128	0.29140	0.77905	158.092	0.29098	0.76583	158.057	0.29056	0.75303	158.021	0.29016	320
330	0.80411	160.074	0.29388	0.79026	160.039	0.29346	0.77687	160.004	0.29305	0.76391	159.970	0.29264	330
340	0.81546	162.028	0.29633	0.80144	161.995	0.29592	0.78787	161.961	0.29551	0.77475	161.927	0.29511	340
350	0.82677	163.992	0.29877	0.81257	163.959	0.29836	0.79884	163.927	0.29795	0.78555	163.894	0.29755	350
360	0.83805	165.965	0.30120	0.82368	165.933	0.30078	0.80978	165.901	0.30038	0.79633	165.870	0.29997	360
370	0.84930	167.947	0.30360	0.83475	167.916	0.30319	0.82068	167.885	0.30278	0.80707	167.855	0.30238	370

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	126			128			130			132			TEMP. °F
	111.304 (65.03 °F)			113.304 (66.04 °F)			115.304 (67.03 °F)			117.304 (68.01 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.43638)	(110.073)	(0.21540)	(0.42954)	(110.143)	(0.21523)	(0.42290)	(110.212)	(0.21506)	(0.41645)	(110.279)	(0.21489)	
70	0.44362	111.027	0.21721	0.43526	110.908	0.21668	0.42714	110.787	0.21615	0.41927	110.666	0.21563	70
80	0.45785	112.933	0.22078	0.44937	112.823	0.22026	0.44114	112.711	0.21975	0.43315	112.599	0.21924	80
90	0.47167	114.821	0.22424	0.46306	114.718	0.22374	0.45471	114.614	0.22324	0.44661	114.510	0.22275	90
100	0.48515	116.695	0.22762	0.47641	116.598	0.22713	0.46793	116.501	0.22665	0.45971	116.404	0.22616	100
110	0.49832	118.558	0.23092	0.48945	118.467	0.23044	0.48084	118.376	0.22997	0.47249	118.285	0.22950	110
120	0.51123	120.413	0.23415	0.50221	120.328	0.23368	0.49347	120.242	0.23321	0.48499	120.156	0.23275	120
130	0.52390	122.263	0.23731	0.51474	122.183	0.23685	0.50586	122.102	0.23639	0.49725	122.021	0.23594	130
140	0.53636	124.110	0.24042	0.52706	124.034	0.23997	0.51804	123.958	0.23952	0.50930	123.881	0.23907	140
150	0.54863	125.956	0.24347	0.53919	125.884	0.24302	0.53003	125.812	0.24258	0.52115	125.739	0.24214	150
160	0.56074	127.801	0.24647	0.55115	127.733	0.24603	0.54185	127.664	0.24560	0.53283	127.596	0.24516	160
170	0.57269	129.648	0.24943	0.56295	129.583	0.24899	0.55351	129.518	0.24856	0.54436	129.452	0.24814	170
180	0.58451	131.497	0.25234	0.57462	131.435	0.25191	0.56504	131.373	0.25149	0.55574	131.311	0.25106	180
190	0.59620	133.349	0.25522	0.58617	133.290	0.25479	0.57644	133.231	0.25437	0.56700	133.172	0.25395	190
200	0.60778	135.206	0.25805	0.59759	135.149	0.25763	0.58772	135.093	0.25721	0.57815	135.036	0.25680	200
210	0.61925	137.067	0.26085	0.60892	137.013	0.26043	0.59890	136.959	0.26002	0.58919	136.904	0.25961	210
220	0.63064	138.933	0.26362	0.62015	138.882	0.26320	0.60999	138.830	0.26279	0.60013	138.778	0.26239	220
230	0.64193	140.806	0.26635	0.63129	140.756	0.26594	0.62099	140.706	0.26553	0.61099	140.656	0.26513	230
240	0.65315	142.684	0.26906	0.64236	142.637	0.26865	0.63190	142.589	0.26824	0.62176	142.541	0.26784	240
250	0.66429	144.570	0.27173	0.65335	144.524	0.27133	0.64275	144.478	0.27092	0.63246	144.432	0.27053	250
260	0.67536	146.463	0.27438	0.66427	146.419	0.27398	0.65352	146.374	0.27358	0.64310	146.330	0.27318	260
270	0.68637	148.363	0.27700	0.67513	148.320	0.27660	0.66423	148.278	0.27620	0.65366	148.235	0.27581	270
280	0.69733	150.271	0.27960	0.68593	150.230	0.27920	0.67489	150.189	0.27880	0.66418	150.148	0.27841	280
290	0.70822	152.187	0.28217	0.69668	152.147	0.28178	0.68549	152.108	0.28138	0.67463	152.068	0.28099	290
300	0.71907	154.111	0.28472	0.70738	154.073	0.28433	0.69604	154.035	0.28393	0.68504	153.996	0.28355	300
310	0.72988	156.044	0.28725	0.71803	156.007	0.28686	0.70654	155.970	0.28647	0.69540	155.933	0.28608	310
320	0.74064	157.985	0.28976	0.72863	157.949	0.28936	0.71700	157.914	0.28897	0.70571	157.878	0.28859	320
330	0.75136	159.935	0.29224	0.73920	159.900	0.29185	0.72742	159.866	0.29146	0.71599	159.831	0.29108	330
340	0.76204	161.894	0.29471	0.74973	161.860	0.29432	0.73780	161.827	0.29393	0.72623	161.793	0.29355	340
350	0.77269	163.862	0.29715	0.76022	163.829	0.29676	0.74814	163.796	0.29638	0.73643	163.764	0.29600	350
360	0.78330	165.838	0.29958	0.77069	165.807	0.29919	0.75846	165.775	0.29881	0.74660	165.743	0.29843	360
370	0.79389	167.824	0.30199	0.78112	167.793	0.30160	0.76874	167.762	0.30122	0.75674	167.732	0.30084	370

TEMP. °F	134			136			138			140			TEMP. °F
	119.304 (68.98 °F)			121.304 (69.94 °F)			123.304 (70.89 °F)			125.304 (71.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.41019)	(110.345)	(0.21473)	(0.40410)	(110.410)	(0.21457)	(0.39818)	(110.473)	(0.21441)	(0.39243)	(110.535)	(0.21425)	
70	0.41161	110.544	0.21511	0.40418	110.421	0.21459	—	—	—	—	—	—	70
80	0.42540	112.486	0.21874	0.41786	112.372	0.21824	0.41054	112.258	0.21774	0.40342	112.143	0.21725	80
90	0.43874	114.405	0.22226	0.43110	114.299	0.22178	0.42368	114.193	0.22130	0.41646	114.086	0.22082	90
100	0.45172	116.306	0.22569	0.44397	116.207	0.22522	0.43643	116.108	0.22475	0.42911	116.009	0.22428	100
110	0.46438	118.193	0.22903	0.45651	118.101	0.22857	0.44886	118.008	0.22811	0.44143	117.915	0.22766	110
120	0.47676	120.070	0.23230	0.46877	119.984	0.23185	0.46100	119.897	0.23140	0.45346	119.809	0.23096	120
130	0.48889	121.940	0.23550	0.48078	121.858	0.23505	0.47290	121.777	0.23461	0.46524	121.694	0.23418	130
140	0.50081	123.805	0.23863	0.49257	123.728	0.23820	0.48457	123.650	0.23777	0.47679	123.573	0.23734	140
150	0.51253	125.666	0.24171	0.50416	125.593	0.24128	0.49604	125.520	0.24086	0.48814	125.447	0.24044	150
160	0.52408	127.527	0.24474	0.51559	127.457	0.24431	0.50733	127.388	0.24390	0.49932	127.319	0.24348	160
170	0.53547	129.387	0.24771	0.52685	129.321	0.24730	0.51847	129.255	0.24689	0.51033	129.189	0.24648	170
180	0.54673	131.248	0.25065	0.53797	131.186	0.25024	0.52947	131.123	0.24983	0.52121	131.060	0.24943	180
190	0.55785	133.112	0.25354	0.54896	133.052	0.25313	0.54033	132.993	0.25273	0.53195	132.933	0.25233	190
200	0.56886	134.979	0.25639	0.55984	134.922	0.25599	0.55108	134.865	0.25559	0.54258	134.808	0.25520	200
210	0.57976	136.850	0.25920	0.57061	136.795	0.25881	0.56173	136.741	0.25841	0.55309	136.686	0.25802	210
220	0.59057	138.725	0.26198	0.58129	138.673	0.26159	0.57227	138.621	0.26120	0.56351	138.569	0.26081	220
230	0.60129	140.606	0.26473	0.59187	140.556	0.26434	0.58273	140.506	0.26395	0.57385	140.456	0.26357	230
240	0.61192	142.493	0.26745	0.60238	142.445	0.26706	0.59310	142.397	0.26667	0.58409	142.349	0.26629	240
250	0.62249	144.386	0.27013	0.61280	144.340	0.26975	0.60340	144.294	0.26936	0.59427	144.247	0.26899	250
260	0.63298	146.286	0.27279	0.62317	146.241	0.27241	0.61363	146.197	0.27203	0.60437	146.152	0.27165	260
270	0.64341	148.192	0.27542	0.63346	148.150	0.27504	0.62380	148.107	0.27466	0.61441	148.064	0.27429	270
280	0.65378	150.107	0.27803	0.64370	150.065	0.27765	0.63391	150.024	0.27727	0.62439	149.983	0.27690	280
290	0.66410	152.028	0.28061	0.65388	151.988	0.28023	0.64396	151.949	0.27986	0.63432	151.909	0.27949	290
300	0.67437	153.958	0.28317	0.66401	153.920	0.28279	0.65396	153.881	0.28242	0.64419	153.843	0.28205	300
310	0.68459	155.896	0.28570	0.67410	155.859	0.28532	0.66391	155.821	0.28495	0.65402	155.784	0.28459	310
320	0.69477	157.842	0.28821	0.68414	157.806	0.28784	0.67382	157.770	0.28747	0.66380	157.734	0.28711	320
330	0.70490	159.796	0.29070	0.69414	159.761	0.29033	0.68369	159.727	0.28996	0.67354	159.692	0.28960	330
340	0.71500	161.759	0.29317	0.70411	161.725	0.29280	0.69353	161.692	0.29244	0.68325	161.658	0.29208	340
350	0.72506	163.731	0.29562	0.71403	163.698	0.29525	0.70332	163.666	0.29489	0.69292	163.633	0.29453	350
360	0.73509	165.711	0.29805	0.72393	165.680	0.29769	0.71309	165.648	0.29732	0.70255	165.616	0.29696	360
370	0.74509	167.701	0.30047	0.73379	167.670	0.30010	0.72282	167.639	0.29974	0.71216	167.608	0.29938	370
380	—	—	—	—	—	—	0.73252	169.639	0.30213	0.72173	169.609	0.30178	380

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	142			144			146			148			TEMP. °F
	127.304 (72.76 °F)			129.304 (73.68 °F)			131.304 (74.59 °F)			133.304 (75.49 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.38683)	(110.596)	(0.21409)	(0.38138)	(110.656)	(0.21394)	(0.37607)	(110.715)	(0.21379)	(0.37090)	(110.772)	(0.21363)	
80	0.39649	112.027	0.21676	0.38975	111.911	0.21628	0.38318	111.793	0.21579	0.37678	111.675	0.21531	80
90	0.40943	113.979	0.22035	0.40260	113.871	0.21988	0.39595	113.763	0.21941	0.38947	113.653	0.21895	90
100	0.42199	115.909	0.22383	0.41506	115.809	0.22337	0.40831	115.708	0.22292	0.40174	115.606	0.22247	100
110	0.43420	117.822	0.22721	0.42717	117.728	0.22677	0.42033	117.634	0.22633	0.41366	117.539	0.22589	110
120	0.44612	119.722	0.23052	0.43899	119.634	0.23008	0.43204	119.546	0.22965	0.42528	119.457	0.22923	120
130	0.45779	121.612	0.23375	0.45054	121.529	0.23333	0.44350	121.446	0.23290	0.43663	121.363	0.23249	130
140	0.46923	123.495	0.23692	0.46187	123.417	0.23650	0.45472	123.339	0.23609	0.44775	123.260	0.23568	140
150	0.48047	125.373	0.24002	0.47300	125.300	0.23961	0.46574	125.226	0.23921	0.45867	125.151	0.23881	150
160	0.49152	127.249	0.24308	0.48395	127.179	0.24267	0.47657	127.109	0.24227	0.46940	127.039	0.24188	160
170	0.50242	129.123	0.24608	0.49473	129.057	0.24568	0.48725	128.990	0.24528	0.47996	128.923	0.24489	170
180	0.51318	130.997	0.24903	0.50537	130.934	0.24864	0.49777	130.871	0.24825	0.49038	130.807	0.24786	180
190	0.52380	132.873	0.25194	0.51588	132.812	0.25155	0.50817	132.752	0.25116	0.50067	132.692	0.25078	190
200	0.53431	134.750	0.25481	0.52627	134.693	0.25442	0.51844	134.635	0.25404	0.51083	134.578	0.25367	200
210	0.54470	136.631	0.25764	0.53655	136.576	0.25726	0.52861	136.521	0.25688	0.52089	136.466	0.25651	210
220	0.55500	138.516	0.26043	0.54673	138.464	0.26005	0.53868	138.411	0.25968	0.53084	138.358	0.25931	220
230	0.56521	140.406	0.26319	0.55682	140.355	0.26282	0.54865	140.305	0.26245	0.54071	140.254	0.26208	230
240	0.57534	142.300	0.26592	0.56683	142.252	0.26555	0.55855	142.204	0.26518	0.55049	142.155	0.26482	240
250	0.58539	144.201	0.26861	0.57676	144.155	0.26825	0.56836	144.108	0.26788	0.56019	144.061	0.26752	250
260	0.59537	146.108	0.27128	0.58662	146.063	0.27092	0.57811	146.018	0.27055	0.56983	145.974	0.27020	260
270	0.60529	148.021	0.27392	0.59642	147.978	0.27356	0.58779	147.935	0.27320	0.57939	147.892	0.27284	270
280	0.61514	149.941	0.27654	0.60615	149.900	0.27617	0.59741	149.858	0.27582	0.58890	149.817	0.27546	280
290	0.62495	151.869	0.27912	0.61584	151.829	0.27876	0.60698	151.789	0.27841	0.59836	151.749	0.27806	290
300	0.63470	153.804	0.28169	0.62547	153.765	0.28133	0.61649	153.727	0.28098	0.60776	153.688	0.28063	300
310	0.64440	155.747	0.28423	0.63505	155.710	0.28387	0.62596	155.672	0.28352	0.61711	155.635	0.28317	310
320	0.65406	157.698	0.28675	0.64459	157.662	0.28639	0.63538	157.626	0.28604	0.62642	157.589	0.28570	320
330	0.66368	159.657	0.28924	0.65409	159.622	0.28889	0.64476	159.587	0.28854	0.63569	159.552	0.28820	330
340	0.67326	161.624	0.29172	0.66355	161.590	0.29137	0.65410	161.556	0.29102	0.64491	161.523	0.29068	340
350	0.68280	163.600	0.29418	0.67297	163.567	0.29382	0.66341	163.534	0.29348	0.65411	163.501	0.29314	350
360	0.69232	165.584	0.29661	0.68236	165.553	0.29626	0.67268	165.521	0.29592	0.66327	165.489	0.29558	360
370	0.70180	167.577	0.29903	0.69172	167.546	0.29868	0.68193	167.516	0.29834	0.67239	167.485	0.29800	370
380	0.71125	169.579	0.30143	0.70105	169.549	0.30108	0.69114	169.519	0.30074	0.68149	169.489	0.30040	380

TEMP. °F	150			152			154			156			TEMP. °F
	135.304 (76.38 °F)			137.304 (77.26 °F)			139.304 (78.14 °F)			141.304 (79.00 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.36586)	(110.829)	(0.21349)	(0.36095)	(110.884)	(0.21334)	(0.35616)	(110.938)	(0.21319)	(0.35149)	(110.991)	(0.21305)	
80	0.37055	111.556	0.21484	0.36447	111.436	0.21436	0.35854	111.316	0.21389	0.35276	111.194	0.21342	80
90	0.38315	113.544	0.21849	0.37700	113.433	0.21803	0.37100	113.322	0.21758	0.36515	113.210	0.21712	90
100	0.39534	115.504	0.22202	0.38911	115.402	0.22158	0.38303	115.299	0.22114	0.37710	115.195	0.22070	100
110	0.40717	117.444	0.22546	0.40085	117.348	0.22503	0.39469	117.252	0.22460	0.38868	117.156	0.22418	110
120	0.41870	119.368	0.22880	0.41228	119.278	0.22838	0.40603	119.188	0.22797	0.39994	119.098	0.22756	120
130	0.42995	121.279	0.23207	0.42345	121.195	0.23166	0.41710	121.111	0.23126	0.41092	121.026	0.23085	130
140	0.44097	123.181	0.23527	0.43437	123.102	0.23487	0.42793	123.023	0.23447	0.42166	122.943	0.23408	140
150	0.45179	125.077	0.23841	0.44508	125.002	0.23801	0.43855	124.927	0.23762	0.43219	124.852	0.23723	150
160	0.46241	126.968	0.24148	0.45561	126.897	0.24110	0.44898	126.826	0.24071	0.44252	126.755	0.24033	160
170	0.47287	128.856	0.24451	0.46597	128.789	0.24412	0.45924	128.722	0.24375	0.45269	128.655	0.24337	170
180	0.48319	130.744	0.24748	0.47618	130.680	0.24710	0.46935	130.616	0.24673	0.46270	130.552	0.24636	180
190	0.49337	132.631	0.25041	0.48626	132.570	0.25004	0.47933	132.510	0.24967	0.47258	132.449	0.24930	190
200	0.50342	134.520	0.25329	0.49621	134.462	0.25292	0.48918	134.404	0.25256	0.48233	134.346	0.25220	200
210	0.51337	136.411	0.25614	0.50605	136.356	0.25577	0.49892	136.300	0.25541	0.49197	136.245	0.25506	210
220	0.52322	138.305	0.25895	0.51579	138.253	0.25859	0.50856	138.199	0.25823	0.50151	138.146	0.25788	220
230	0.53297	140.204	0.26172	0.52544	140.153	0.26136	0.51811	140.102	0.26101	0.51096	140.051	0.26066	230
240	0.54265	142.107	0.26446	0.53501	142.058	0.26410	0.52757	142.009	0.26375	0.52032	141.961	0.26341	240
250	0.55224	144.015	0.26717	0.54450	143.968	0.26681	0.53695	143.921	0.26647	0.52961	143.875	0.26612	250
260	0.56176	145.929	0.26984	0.55391	145.884	0.26949	0.54627	145.839	0.26915	0.53882	145.794	0.26881	260
270	0.57122	147.849	0.27249	0.56327	147.805	0.27215	0.55552	147.762	0.27180	0.54796	147.719	0.27146	270
280	0.58062	149.775	0.27512	0.57256	149.734	0.27477	0.56470	149.692	0.27443	0.55705	149.650	0.27409	280
290	0.58996	151.709	0.27771	0.58179	151.669	0.27737	0.57383	151.628	0.27703	0.56608	151.588	0.27669	290
300	0.59925	153.649	0.28028	0.59098	153.611	0.27994	0.58291	153.572	0.27961	0.57505	153.533	0.27927	300
310	0.60850	155.597	0.28283	0.60011	155.560	0.28249	0.59194	155.522	0.28216	0.58398	155.485	0.28182	310
320	0.61770	157.553	0.28536	0.60920	157.517	0.28502	0.60093	157.481	0.28468	0.59287	157.444	0.28435	320
330	0.62685	159.517	0.28786	0.61825	159.482	0.28752	0.60987	159.447	0.28719	0.60171	159.412	0.28686	330
340	0.63597	161.489	0.29034	0.62726	161.455	0.29000	0.61878	161.421	0.28967	0.61051	161.387	0.28935	340
350	0.64505	163.469	0.29280	0.63623	163.436	0.29247	0.62764	163.403	0.29214	0.61928	163.370	0.29181	350
360	0.65410	165.457	0.29524	0.64517	165.425	0.29491	0.63648	165.393	0.29458	0.62801	165.361	0.29426	360
370	0.66312	167.454	0.29766	0.65408	167.423	0.29733	0.64528	167.392	0.29700	0.63671	167.361	0.29668	370
380	0.67210	169.459	0.30006	0.66296	169.429	0.29973	0.65406	169.399	0.29941	0.64538	169.369	0.29909	380

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	158			160			162			164			TEMP. °F
	143.304 (79.86 °F)			145.304 (80.71 °F)			147.304 (81.55 °F)			149.304 (82.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.34694)	(111.044)	(0.21290)	(0.34249)	(111.095)	(0.21276)	(0.33815)	(111.145)	(0.21262)	(0.33390)	(111.194)	(0.21248)	
80	0.34711	111.072	0.21296	—	—	—	—	—	—	—	—	—	80
90	0.35944	113.097	0.21668	0.35387	112.984	0.21623	0.34842	112.870	0.21579	0.34311	112.755	0.21534	90
100	0.37132	115.091	0.22027	0.36568	114.986	0.21984	0.36017	114.880	0.21941	0.35479	114.774	0.21898	100
110	0.38282	117.059	0.22375	0.37710	116.961	0.22334	0.37152	116.863	0.22292	0.36607	116.765	0.22251	110
120	0.39400	119.008	0.22715	0.38820	118.917	0.22674	0.38254	118.825	0.22634	0.37702	118.733	0.22593	120
130	0.40489	120.941	0.23045	0.39901	120.856	0.23006	0.39327	120.770	0.22966	0.38767	120.684	0.22927	130
140	0.41554	122.863	0.23369	0.40958	122.783	0.23330	0.40376	122.702	0.23291	0.39807	122.622	0.23253	140
150	0.42598	124.777	0.23685	0.41992	124.701	0.23647	0.41402	124.625	0.23609	0.40825	124.549	0.23572	150
160	0.43622	126.684	0.23995	0.43008	126.612	0.23958	0.42409	126.541	0.23921	0.41824	126.469	0.23884	160
170	0.44629	128.587	0.24300	0.44006	128.519	0.24263	0.43398	128.451	0.24227	0.42804	128.383	0.24190	170
180	0.45621	130.488	0.24599	0.44989	130.423	0.24563	0.44372	130.359	0.24527	0.43770	130.294	0.24492	180
190	0.46600	132.387	0.24894	0.45958	132.326	0.24858	0.45332	132.265	0.24823	0.44721	132.203	0.24788	190
200	0.47565	134.288	0.25184	0.46914	134.229	0.25149	0.46279	134.171	0.25114	0.45659	134.112	0.25079	200
210	0.48520	136.189	0.25470	0.47859	136.133	0.25435	0.47215	136.078	0.25401	0.46586	136.022	0.25367	210
220	0.49464	138.093	0.25753	0.48794	138.040	0.25718	0.48141	137.986	0.25684	0.47503	137.933	0.25650	220
230	0.50399	140.000	0.26031	0.49720	139.949	0.25997	0.49057	139.898	0.25963	0.48410	139.847	0.25929	230
240	0.51326	141.912	0.26306	0.50637	141.863	0.26272	0.49965	141.814	0.26239	0.49309	141.765	0.26205	240
250	0.52244	143.828	0.26578	0.51546	143.781	0.26544	0.50864	143.734	0.26511	0.50199	143.686	0.26478	250
260	0.53155	145.749	0.26847	0.52447	145.704	0.26814	0.51757	145.658	0.26780	0.51083	145.613	0.26748	260
270	0.54060	147.675	0.27113	0.53342	147.632	0.27080	0.52642	147.589	0.27047	0.51959	147.545	0.27014	270
280	0.54959	149.608	0.27376	0.54231	149.567	0.27343	0.53522	149.525	0.27310	0.52830	149.483	0.27278	280
290	0.55852	151.548	0.27636	0.55115	151.507	0.27604	0.54396	151.467	0.27571	0.53694	151.427	0.27539	290
300	0.56740	153.494	0.27894	0.55993	153.455	0.27862	0.55265	153.416	0.27829	0.54554	153.377	0.27798	300
310	0.57622	155.447	0.28150	0.56866	155.410	0.28117	0.56128	155.372	0.28085	0.55408	155.334	0.28054	310
320	0.58501	157.408	0.28403	0.57735	157.372	0.28371	0.56987	157.335	0.28339	0.56258	157.299	0.28307	320
330	0.59375	159.376	0.28654	0.58599	159.341	0.28622	0.57842	159.306	0.28590	0.57104	159.271	0.28558	330
340	0.60245	161.353	0.28902	0.59460	161.319	0.28870	0.58694	161.284	0.28839	0.57946	161.250	0.28808	340
350	0.61112	163.337	0.29149	0.60317	163.304	0.29117	0.59541	163.271	0.29086	0.58784	163.238	0.29054	350
360	0.61975	165.329	0.29393	0.61170	165.297	0.29362	0.60385	165.265	0.29330	0.59619	165.233	0.29299	360
370	0.62835	167.330	0.29636	0.62020	167.298	0.29604	0.61226	167.267	0.29573	0.60450	167.236	0.29542	370
380	0.63692	169.338	0.29877	0.62868	169.308	0.29845	0.62064	169.278	0.29814	0.61279	169.248	0.29783	380
390	—	—	—	0.63712	171.326	0.30084	0.62898	171.297	0.30053	0.62105	171.268	0.30022	390

TEMP. °F	166			168			170			172			TEMP. °F
	151.304 (83.21 °F)			153.304 (84.03 °F)			155.304 (84.85 °F)			157.304 (85.65 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.32976)	(111.242)	(0.21235)	(0.32571)	(111.290)	(0.21221)	(0.32175)	(111.336)	(0.21208)	(0.31788)	(111.382)	(0.21194)	
90	0.33791	112.640	0.21490	0.33284	112.523	0.21447	0.32787	112.406	0.21403	0.32302	112.288	0.21360	90
100	0.34953	114.668	0.21856	0.34440	114.561	0.21814	0.33938	114.453	0.21772	0.33447	114.344	0.21730	100
110	0.36075	116.666	0.22210	0.35555	116.567	0.22169	0.35047	116.467	0.22129	0.34550	116.366	0.22089	110
120	0.37162	118.641	0.22554	0.36636	118.548	0.22514	0.36121	118.455	0.22475	0.35617	118.362	0.22436	120
130	0.38220	120.598	0.22888	0.37686	120.511	0.22850	0.37164	120.424	0.22812	0.36654	120.337	0.22774	130
140	0.39253	122.541	0.23215	0.38711	122.459	0.23177	0.38182	122.377	0.23140	0.37664	122.295	0.23103	140
150	0.40263	124.472	0.23534	0.39713	124.396	0.23498	0.39176	124.319	0.23461	0.38652	124.242	0.23425	150
160	0.41253	126.396	0.23847	0.40695	126.324	0.23811	0.40151	126.251	0.23775	0.39618	126.178	0.23740	160
170	0.42225	128.315	0.24155	0.41660	128.246	0.24119	0.41107	128.177	0.24084	0.40567	128.108	0.24049	170
180	0.43182	130.229	0.24456	0.42608	130.164	0.24421	0.42048	130.099	0.24387	0.41500	130.033	0.24352	180
190	0.44125	132.141	0.24753	0.43542	132.080	0.24718	0.42974	132.018	0.24684	0.42418	131.956	0.24650	190
200	0.45054	134.053	0.25045	0.44464	133.994	0.25011	0.43887	133.935	0.24977	0.43324	133.876	0.24944	200
210	0.45973	135.965	0.25333	0.45374	135.909	0.25299	0.44789	135.853	0.25266	0.44217	135.797	0.25233	210
220	0.46881	137.879	0.25616	0.46273	137.826	0.25583	0.45680	137.772	0.25550	0.45100	137.718	0.25517	220
230	0.47779	139.796	0.25896	0.47163	139.744	0.25863	0.46561	139.693	0.25831	0.45974	139.641	0.25798	230
240	0.48669	141.715	0.26172	0.48044	141.666	0.26140	0.47434	141.617	0.26108	0.46838	141.568	0.26076	240
250	0.49551	143.639	0.26445	0.48917	143.592	0.26413	0.48299	143.545	0.26381	0.47694	143.497	0.26349	250
260	0.50425	145.568	0.26715	0.49783	145.522	0.26683	0.49156	145.477	0.26651	0.48543	145.431	0.26620	260
270	0.51293	147.501	0.26982	0.50642	147.458	0.26950	0.50006	147.414	0.26919	0.49386	147.370	0.26888	270
280	0.52154	149.441	0.27246	0.51495	149.399	0.27215	0.50851	149.357	0.27183	0.50222	149.314	0.27152	280
290	0.53010	151.386	0.27507	0.52342	151.346	0.27476	0.51689	151.305	0.27445	0.51052	151.264	0.27414	290
300	0.53860	153.338	0.27766	0.53183	153.299	0.27735	0.52522	153.260	0.27704	0.51877	153.221	0.27673	300
310	0.54706	155.297	0.28022	0.54020	155.259	0.27991	0.53351	155.221	0.27960	0.52696	155.183	0.27930	310
320	0.55547	157.262	0.28276	0.54852	157.226	0.28245	0.54174	157.189	0.28214	0.53512	157.153	0.28184	320
330	0.56384	159.236	0.28527	0.55680	159.200	0.28497	0.54994	159.165	0.28466	0.54323	159.130	0.28436	330
340	0.57217	161.216	0.28777	0.56504	161.182	0.28746	0.55809	161.148	0.28716	0.55130	161.114	0.28686	340
350	0.58046	163.205	0.29024	0.57325	163.171	0.28993	0.56621	163.138	0.28963	0.55933	163.105	0.28933	350
360	0.58871	165.201	0.29269	0.58142	165.169	0.29238	0.57429	165.137	0.29208	0.56733	165.104	0.29179	360
370	0.59694	167.205	0.29512	0.58955	167.174	0.29482	0.58234	167.143	0.29452	0.57530	167.112	0.29422	370
380	0.60513	169.218	0.29753	0.59766	169.187	0.29723	0.59036	169.157	0.29693	0.58323	169.127	0.29663	380
390	0.61330	171.238	0.29992	0.60574	171.209	0.29962	0.59835	171.179	0.29932	0.59114	171.150	0.29903	390

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	174			176			178			180			TEMP. °F
	159.304 (86.45 °F)			161.304 (87.24 °F)			163.304 (88.03 °F)			165.304 (88.81 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.31410)	(111.426)	(0.21181)	(0.31040)	(111.470)	(0.21168)	(0.30677)	(111.513)	(0.21155)	(0.30323)	(111.555)	(0.21142)	
90	0.31827	112.170	0.21317	0.31362	112.050	0.21274	0.30906	111.930	0.21231	0.30461	111.808	0.21188	90
100	0.32967	114.235	0.21689	0.32497	114.125	0.21648	0.32037	114.015	0.21607	0.31587	113.904	0.21566	100
110	0.34064	116.265	0.22049	0.33589	116.164	0.22009	0.33124	116.062	0.21969	0.32669	115.959	0.21930	110
120	0.35125	118.268	0.22397	0.34644	118.173	0.22358	0.34173	118.079	0.22320	0.33713	117.983	0.22282	120
130	0.36156	120.249	0.22736	0.35668	120.161	0.22698	0.35191	120.072	0.22661	0.34724	119.983	0.22624	130
140	0.37159	122.213	0.23066	0.36665	122.130	0.23030	0.36181	122.048	0.22993	0.35708	121.964	0.22957	140
150	0.38139	124.164	0.23389	0.37638	124.087	0.23353	0.37148	124.009	0.23318	0.36668	123.930	0.23282	150
160	0.39098	126.105	0.23705	0.38590	126.032	0.23670	0.38093	125.959	0.23635	0.37607	125.885	0.23600	160
170	0.40040	128.039	0.24014	0.39524	127.970	0.23980	0.39020	127.900	0.23946	0.38527	127.831	0.23912	170
180	0.40965	129.968	0.24318	0.40442	129.902	0.24284	0.39930	129.836	0.24251	0.39430	129.770	0.24217	180
190	0.41875	131.893	0.24617	0.41345	131.831	0.24583	0.40826	131.768	0.24550	0.40319	131.706	0.24518	190
200	0.42773	133.817	0.24911	0.42235	133.757	0.24878	0.41709	133.698	0.24845	0.41194	133.638	0.24813	200
210	0.43659	135.740	0.25200	0.43113	135.683	0.25167	0.42579	135.627	0.25135	0.42057	135.570	0.25103	210
220	0.44534	137.664	0.25485	0.43980	137.610	0.25453	0.43439	137.556	0.25421	0.42910	137.501	0.25390	220
230	0.45399	139.590	0.25766	0.44838	139.538	0.25735	0.44289	139.486	0.25703	0.43752	139.434	0.25672	230
240	0.46256	141.518	0.26044	0.45687	141.468	0.26012	0.45130	141.419	0.25981	0.44586	141.369	0.25951	240
250	0.47104	143.450	0.26318	0.46527	143.402	0.26287	0.45963	143.355	0.26256	0.45411	143.307	0.26226	250
260	0.47945	145.386	0.26589	0.47360	145.340	0.26558	0.46788	145.294	0.26527	0.46229	145.249	0.26497	260
270	0.48779	147.326	0.26857	0.48186	147.282	0.26826	0.47607	147.239	0.26796	0.47040	147.195	0.26766	270
280	0.49607	149.272	0.27122	0.49006	149.230	0.27091	0.48419	149.188	0.27061	0.47845	149.145	0.27031	280
290	0.50429	151.224	0.27384	0.49820	151.183	0.27353	0.49225	151.142	0.27324	0.48644	151.102	0.27294	290
300	0.51246	153.181	0.27643	0.50629	153.142	0.27613	0.50026	153.103	0.27583	0.49437	153.063	0.27554	300
310	0.52057	155.145	0.27900	0.51433	155.108	0.27870	0.50822	155.070	0.27841	0.50225	155.032	0.27811	310
320	0.52865	157.116	0.28154	0.52232	157.080	0.28125	0.51614	157.043	0.28095	0.51009	157.006	0.28066	320
330	0.53667	159.094	0.28406	0.53027	159.059	0.28377	0.52401	159.023	0.28348	0.51788	158.988	0.28319	330
340	0.54466	161.079	0.28656	0.53818	161.045	0.28627	0.53184	161.011	0.28598	0.52564	160.976	0.28569	340
350	0.55261	163.072	0.28904	0.54605	163.039	0.28875	0.53963	163.005	0.28846	0.53335	162.972	0.28817	350
360	0.56053	165.072	0.29149	0.55388	165.040	0.29120	0.54739	165.008	0.29091	0.54103	164.976	0.29063	360
370	0.56841	167.080	0.29393	0.56169	167.049	0.29364	0.55511	167.018	0.29335	0.54868	166.986	0.29307	370
380	0.57627	169.096	0.29634	0.56946	169.066	0.29605	0.56281	169.036	0.29577	0.55630	169.005	0.29549	380
390	0.58409	171.120	0.29874	0.57720	171.091	0.29845	0.57047	171.062	0.29817	0.56389	171.032	0.29789	390

TEMP. °F	182			184			186			188			TEMP. °F
	167.304 (89.58 °F)			169.304 (90.35 °F)			171.304 (91.11 °F)			173.304 (91.86 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.29975)	(111.597)	(0.21129)	(0.29636)	(111.637)	(0.21116)	(0.29303)	(111.677)	(0.21104)	(0.28976)	(111.716)	(0.21091)	
90	0.30024	111.686	0.21145	—	—	—	—	—	—	—	—	—	90
100	0.31147	113.792	0.21525	0.30715	113.679	0.21484	0.30292	113.566	0.21444	0.29878	113.452	0.21404	100
110	0.32224	115.856	0.21891	0.31787	115.752	0.21852	0.31360	115.648	0.21813	0.30941	115.543	0.21774	110
120	0.33262	117.888	0.22244	0.32821	117.791	0.22206	0.32388	117.695	0.22169	0.31965	117.597	0.22132	120
130	0.34268	119.894	0.22587	0.33821	119.804	0.22551	0.33383	119.714	0.22514	0.32954	119.624	0.22478	130
140	0.35245	121.881	0.22921	0.34792	121.797	0.22886	0.34349	121.713	0.22850	0.33915	121.628	0.22815	140
150	0.36199	123.852	0.23247	0.35740	123.773	0.23213	0.35290	123.694	0.23178	0.34850	123.615	0.23144	150
160	0.37131	125.811	0.23566	0.36665	125.737	0.23532	0.36210	125.662	0.23498	0.35763	125.587	0.23465	160
170	0.38044	127.761	0.23878	0.37572	127.691	0.23845	0.37110	127.620	0.23812	0.36657	127.550	0.23779	170
180	0.38941	129.704	0.24184	0.38462	129.638	0.24152	0.37993	129.571	0.24119	0.37534	129.504	0.24087	180
190	0.39822	131.643	0.24485	0.39337	131.580	0.24453	0.38861	131.516	0.24421	0.38396	131.453	0.24389	190
200	0.40691	133.578	0.24781	0.40198	133.518	0.24749	0.39716	133.458	0.24717	0.39244	133.398	0.24686	200
210	0.41547	135.513	0.25072	0.41047	135.456	0.25040	0.40559	135.398	0.25009	0.40080	135.341	0.24979	210
220	0.42392	137.447	0.25358	0.41886	137.392	0.25328	0.41390	137.338	0.25297	0.40905	137.283	0.25266	220
230	0.43227	139.382	0.25641	0.42714	139.330	0.25611	0.42211	139.278	0.25580	0.41719	139.226	0.25550	230
240	0.44054	141.319	0.25920	0.43533	141.269	0.25890	0.43024	141.219	0.25860	0.42525	141.169	0.25830	240
250	0.44872	143.259	0.26195	0.44344	143.211	0.26165	0.43828	143.164	0.26136	0.43322	143.116	0.26106	250
260	0.45682	145.203	0.26467	0.45147	145.157	0.26437	0.44624	145.111	0.26408	0.44111	145.065	0.26379	260
270	0.46486	147.150	0.26736	0.45944	147.106	0.26706	0.45413	147.062	0.26677	0.44894	147.018	0.26648	270
280	0.47283	149.103	0.27002	0.46734	149.060	0.26972	0.46196	149.018	0.26943	0.45670	148.975	0.26915	280
290	0.48075	151.061	0.27265	0.47518	151.020	0.27236	0.46973	150.979	0.27207	0.46440	150.938	0.27178	290
300	0.48861	153.024	0.27525	0.48297	152.985	0.27496	0.47745	152.945	0.27467	0.47205	152.906	0.27439	300
310	0.49641	154.994	0.27782	0.49070	154.956	0.27754	0.48511	154.917	0.27725	0.47964	154.879	0.27697	310
320	0.50418	156.970	0.28037	0.49839	156.933	0.28009	0.49273	156.896	0.27981	0.48719	156.859	0.27953	320
330	0.51189	158.952	0.28290	0.50604	158.917	0.28262	0.50030	158.881	0.28234	0.49469	158.846	0.28206	330
340	0.51957	160.942	0.28540	0.51364	160.908	0.28512	0.50784	160.873	0.28484	0.50216	160.839	0.28457	340
350	0.52721	162.939	0.28789	0.52121	162.906	0.28761	0.51533	162.872	0.28733	0.50958	162.839	0.28705	350
360	0.53482	164.943	0.29035	0.52874	164.911	0.29007	0.52280	164.879	0.28979	0.51697	164.846	0.28952	360
370	0.54239	166.955	0.29279	0.53624	166.924	0.29251	0.53022	166.892	0.29223	0.52433	166.861	0.29196	370
380	0.54994	168.975	0.29521	0.54371	168.944	0.29493	0.53762	168.914	0.29465	0.53166	168.884	0.29438	380
390	0.55745	171.002	0.29761	0.55115	170.973	0.29733	0.54499	170.943	0.29706	0.53896	170.914	0.29679	390
400	—	—	—	0.55856	173.009	0.29971	0.55233	172.981	0.29944	0.54623	172.952	0.29917	400

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	190			192			194			196			TEMP. °F
	175.304			177.304			179.304			181.304			
	(92.61 °F)			(93.33 °F)			(94.09 °F)			(94.82 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.28657)	(111.754)	(0.21079)	(0.28343)	(111.791)	(0.21067)	(0.28036)	(111.828)	(0.21054)	(0.27735)	(111.864)	(0.21042)	
100	0.29471	113.337	0.21364	0.29073	113.221	0.21324	0.28682	113.105	0.21284	0.28299	112.987	0.21244	100
110	0.30531	115.437	0.21736	0.30129	115.331	0.21697	0.29735	115.224	0.21659	0.29348	115.117	0.21621	110
120	0.31550	117.500	0.22094	0.31143	117.402	0.22058	0.30745	117.303	0.22021	0.30354	117.204	0.21984	120
130	0.32534	119.533	0.22442	0.32123	119.442	0.22406	0.31720	119.350	0.22371	0.31324	119.258	0.22335	130
140	0.33489	121.543	0.22780	0.33073	121.458	0.22746	0.32664	121.372	0.22711	0.32264	121.286	0.22677	140
150	0.34419	123.535	0.23110	0.33997	123.455	0.23076	0.33583	123.375	0.23042	0.33177	123.294	0.23009	150
160	0.35326	125.513	0.23431	0.34898	125.437	0.23398	0.34479	125.362	0.23365	0.34068	125.286	0.23333	160
170	0.36214	127.479	0.23746	0.35780	127.408	0.23714	0.35355	127.337	0.23682	0.34939	127.266	0.23650	170
180	0.37085	129.437	0.24055	0.36645	129.370	0.24023	0.36214	129.303	0.23991	0.35792	129.236	0.23960	180
190	0.37941	131.390	0.24358	0.37494	131.326	0.24326	0.37057	131.262	0.24295	0.36629	131.198	0.24264	190
200	0.38782	133.338	0.24655	0.38330	133.277	0.24624	0.37886	133.217	0.24594	0.37452	133.156	0.24563	200
210	0.39612	135.284	0.24948	0.39153	135.226	0.24918	0.38703	135.168	0.24887	0.38263	135.111	0.24858	210
220	0.40430	137.228	0.25236	0.39964	137.173	0.25206	0.39509	137.118	0.25176	0.39062	137.063	0.25147	220
230	0.41238	139.173	0.25520	0.40766	139.121	0.25491	0.40304	139.068	0.25461	0.39851	139.015	0.25432	230
240	0.42037	141.119	0.25800	0.41558	141.069	0.25771	0.41090	141.019	0.25742	0.40631	140.968	0.25713	240
250	0.42827	143.068	0.26077	0.42342	143.019	0.26048	0.41868	142.971	0.26019	0.41402	142.923	0.25991	250
260	0.43610	145.019	0.26350	0.43119	144.973	0.26321	0.42637	144.926	0.26293	0.42166	144.880	0.26264	260
270	0.44386	146.974	0.26620	0.43888	146.929	0.26591	0.43400	146.885	0.26563	0.42922	146.840	0.26535	270
280	0.45155	148.933	0.26886	0.44650	148.890	0.26858	0.44156	148.847	0.26830	0.43672	148.805	0.26802	280
290	0.45918	150.897	0.27150	0.45407	150.856	0.27122	0.44906	150.815	0.27094	0.44416	150.773	0.27067	290
300	0.46676	152.866	0.27411	0.46158	152.827	0.27383	0.45651	152.787	0.27356	0.45154	152.747	0.27328	300
310	0.47429	154.841	0.27669	0.46904	154.803	0.27642	0.46390	154.765	0.27614	0.45887	154.726	0.27587	310
320	0.48177	156.822	0.27925	0.47645	156.785	0.27897	0.47125	156.748	0.27870	0.46616	156.711	0.27843	320
330	0.48920	158.810	0.28178	0.48382	158.774	0.28151	0.47856	158.738	0.28124	0.47340	158.703	0.28097	330
340	0.49660	160.804	0.28429	0.49115	160.770	0.28402	0.48582	160.735	0.28375	0.48059	160.700	0.28348	340
350	0.50395	162.805	0.28678	0.49844	162.772	0.28651	0.49304	162.739	0.28624	0.48775	162.705	0.28598	350
360	0.51128	164.814	0.28924	0.50570	164.781	0.28898	0.50023	164.749	0.28871	0.49488	164.717	0.28844	360
370	0.51856	166.830	0.29169	0.51292	166.798	0.29142	0.50739	166.767	0.29116	0.50197	166.735	0.29089	370
380	0.52582	168.853	0.29411	0.52011	168.823	0.29385	0.51451	168.792	0.29538	0.50903	168.762	0.29332	380
390	0.53305	170.884	0.29652	0.52727	170.855	0.29625	0.52161	170.825	0.29599	0.51606	170.795	0.29573	390
400	0.54025	172.923	0.29890	0.53440	172.894	0.29864	0.52868	172.865	0.29838	0.52306	172.837	0.29812	400

TEMP. °F	198			200			202			204			TEMP. °F
	183.304			185.304			187.304			189.304			
	(95.54 °F)			(96.27 °F)			(96.98 °F)			(97.69 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.27440)	(111.899)	(0.21030)	(0.27150)	(111.934)	(0.21018)	(0.26866)	(111.968)	(0.21006)	(0.26587)	(112.001)	(0.20994)	
100	0.27922	112.869	0.21204	0.27553	112.750	0.21165	0.27191	112.631	0.21125	0.26834	112.510	0.21086	100
110	0.28968	115.009	0.21583	0.28596	114.900	0.21545	0.28231	114.790	0.21508	0.27872	114.680	0.21470	110
120	0.29971	117.104	0.21948	0.29595	117.004	0.21911	0.29226	116.903	0.21875	0.28864	116.802	0.21839	120
130	0.30937	119.166	0.22300	0.30556	119.073	0.22265	0.30183	118.979	0.22230	0.29817	118.885	0.22196	130
140	0.31871	121.200	0.22642	0.31487	121.114	0.22608	0.31109	121.027	0.22575	0.30739	120.939	0.22541	140
150	0.32780	123.214	0.22975	0.32390	123.133	0.22942	0.32008	123.051	0.22909	0.31633	122.969	0.22877	150
160	0.33665	125.210	0.23300	0.33270	125.134	0.23268	0.32883	125.058	0.23236	0.32503	124.981	0.23204	160
170	0.34530	127.194	0.23618	0.34130	127.122	0.23586	0.33737	127.050	0.23555	0.33352	126.978	0.23524	170
180	0.35378	129.168	0.23929	0.34972	129.100	0.23898	0.34574	129.032	0.23867	0.34184	128.964	0.23837	180
190	0.36209	131.134	0.24234	0.35798	131.070	0.24203	0.35394	131.006	0.24173	0.34999	130.941	0.24143	190
200	0.37027	133.095	0.24533	0.36609	133.034	0.24503	0.36200	132.973	0.24474	0.35799	132.912	0.24444	200
210	0.37831	135.053	0.24828	0.37408	134.995	0.24798	0.36994	134.936	0.24769	0.36587	134.878	0.24740	210
220	0.38625	137.008	0.25118	0.38196	136.953	0.25089	0.37776	136.897	0.25060	0.37363	136.842	0.25031	220
230	0.39408	138.963	0.25403	0.38973	138.910	0.25374	0.38547	138.857	0.25346	0.38129	138.804	0.25318	230
240	0.40182	140.918	0.25685	0.39741	140.867	0.25656	0.39309	140.817	0.25628	0.38885	140.766	0.25600	240
250	0.40947	142.875	0.25962	0.40500	142.826	0.25934	0.40062	142.778	0.25906	0.39633	142.729	0.25879	250
260	0.41704	144.834	0.26236	0.41251	144.787	0.26209	0.40808	144.741	0.26181	0.40372	144.694	0.26154	260
270	0.42454	146.796	0.26507	0.41995	146.751	0.26480	0.41546	146.707	0.26452	0.41105	146.662	0.26425	270
280	0.43198	148.762	0.26775	0.42733	148.719	0.26747	0.42277	148.676	0.26720	0.41831	148.633	0.26694	280
290	0.43935	150.732	0.27039	0.43465	150.691	0.27012	0.43003	150.650	0.26985	0.42550	150.608	0.26959	290
300	0.44667	152.707	0.27301	0.44190	152.668	0.27274	0.43723	152.628	0.27248	0.43264	152.588	0.27221	300
310	0.45394	154.688	0.27560	0.44911	154.650	0.27533	0.44437	154.611	0.27507	0.43973	154.573	0.27481	310
320	0.46116	156.674	0.27817	0.45627	156.637	0.27790	0.45147	156.600	0.27764	0.44677	156.563	0.27738	320
330	0.46834	158.667	0.28070	0.46339	158.631	0.28044	0.45853	158.595	0.28018	0.45377	158.559	0.27992	330
340	0.47548	160.666	0.28322	0.47046	160.631	0.28296	0.46554	160.597	0.28270	0.46072	160.562	0.28244	340
350	0.48257	162.672	0.28571	0.47749	162.638	0.28545	0.47252	162.604	0.28519	0.46764	162.571	0.28494	350
360	0.48963	164.684	0.28818	0.48449	164.652	0.28792	0.47945	164.619	0.28767	0.47451	164.587	0.28741	360
370	0.49666	166.704	0.29063	0.49146	166.672	0.29037	0.48636	166.641	0.29012	0.48136	166.609	0.28986	370
380	0.50366	168.731	0.29306	0.49839	168.700	0.29280	0.49323	168.670	0.29255	0.48818	168.639	0.29230	380
390	0.51063	170.766	0.29547	0.50530	170.736	0.29521	0.50008	170.706	0.29496	0.49496	170.676	0.29471	390
400	0.51757	172.808	0.29786	0.51218	172.779	0.29760	0.50690	172.750	0.29735	0.50172	172.721	0.29710	400

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	206			208			210			212			TEMP. °F
	191.304 (98.40 °F)			193.304 (99.10 °F)			195.304 (99.79 °F)			197.304 (100.48 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.26313)	(112.033)	(0.20983)	(0.26045)	(112.065)	(0.20971)	(0.25781)	(112.096)	(0.20959)	(0.25522)	(112.126)	(0.20948)	
100	0.26485	112.388	0.21046	0.26141	112.266	0.21007	0.25803	112.142	0.20968	—	—	—	100
110	0.27520	114.569	0.21433	0.27174	114.458	0.21395	0.26834	114.346	0.21358	0.26500	114.233	0.21321	110
120	0.28508	116.700	0.21803	0.28159	116.597	0.21768	0.27817	116.494	0.21732	0.27480	116.391	0.21696	120
130	0.29458	118.791	0.22161	0.29106	118.696	0.22127	0.28759	118.601	0.22092	0.28419	118.506	0.22058	130
140	0.30375	120.852	0.22507	0.30019	120.763	0.22474	0.29669	120.675	0.22441	0.29325	120.586	0.22408	140
150	0.31265	122.887	0.22844	0.30904	122.805	0.22812	0.30549	122.723	0.22780	0.30201	122.640	0.22748	150
160	0.32130	124.904	0.23172	0.31764	124.827	0.23141	0.31406	124.750	0.23109	0.31053	124.672	0.23078	160
170	0.32975	126.906	0.23493	0.32604	126.833	0.23462	0.32240	126.760	0.23431	0.31884	126.687	0.23401	170
180	0.33801	128.895	0.23806	0.33425	128.827	0.23776	0.33057	128.758	0.23746	0.32695	128.689	0.23716	180
190	0.34611	130.876	0.24113	0.34230	130.811	0.24084	0.33856	130.746	0.24054	0.33490	130.681	0.24025	190
200	0.35406	132.850	0.24415	0.35020	132.789	0.24386	0.34641	132.727	0.24357	0.34270	132.665	0.24328	200
210	0.36188	134.820	0.24711	0.35797	134.761	0.24683	0.35413	134.702	0.24654	0.35037	134.644	0.24626	210
220	0.36959	136.786	0.25003	0.36563	136.730	0.24974	0.36173	136.674	0.24946	0.35792	136.618	0.24919	220
230	0.37719	138.751	0.25290	0.37317	138.698	0.25262	0.36923	138.644	0.25234	0.36536	138.591	0.25207	230
240	0.38470	140.715	0.25572	0.38062	140.664	0.25545	0.37663	140.613	0.25518	0.37270	140.562	0.25491	240
250	0.39212	142.681	0.25851	0.38799	142.632	0.25824	0.38394	142.583	0.25797	0.37996	142.534	0.25770	250
260	0.39946	144.648	0.26127	0.39527	144.601	0.26100	0.39117	144.554	0.26073	0.38714	144.507	0.26046	260
270	0.40672	146.617	0.26398	0.40248	146.572	0.26372	0.39832	146.527	0.26345	0.39424	146.482	0.26319	270
280	0.41393	148.590	0.26667	0.40963	148.547	0.26640	0.40541	148.504	0.26614	0.40128	148.461	0.26588	280
290	0.42106	150.567	0.26932	0.41671	150.525	0.26906	0.41244	150.484	0.26880	0.40825	150.442	0.26854	290
300	0.42815	152.548	0.27195	0.42374	152.508	0.27169	0.41941	152.468	0.27143	0.41517	152.428	0.27117	300
310	0.43518	154.534	0.27455	0.43071	154.496	0.27429	0.42633	154.457	0.27403	0.42203	154.419	0.27378	310
320	0.44216	156.526	0.27712	0.43764	156.489	0.27686	0.43320	156.452	0.27661	0.42885	156.414	0.27635	320
330	0.44910	158.524	0.27966	0.44452	158.488	0.27941	0.44002	158.452	0.27916	0.43562	158.416	0.27890	330
340	0.45599	160.527	0.28218	0.45136	160.492	0.28193	0.44681	160.458	0.28168	0.44235	160.423	0.28143	340
350	0.46285	162.537	0.28468	0.45816	162.504	0.28443	0.45355	162.470	0.28418	0.44903	162.436	0.28393	350
360	0.46967	164.554	0.28716	0.46492	164.521	0.28691	0.46026	164.489	0.28666	0.45569	164.456	0.28641	360
370	0.47646	166.578	0.28961	0.47165	166.546	0.28936	0.46693	166.514	0.28911	0.46231	166.483	0.28887	370
380	0.48321	168.608	0.29204	0.47835	168.578	0.29180	0.47358	168.547	0.29155	0.46889	168.516	0.29131	380
390	0.48994	170.647	0.29446	0.48502	170.617	0.29421	0.48019	170.587	0.29397	0.47545	170.557	0.29372	390
400	0.49664	172.692	0.29685	0.49166	172.663	0.29660	0.48678	172.634	0.29636	0.48198	172.605	0.29612	400
410	—	—	—	—	—	—	—	—	—	0.48849	174.661	0.29850	410

TEMP. °F	214			216			218			220			TEMP. °F
	199.304 (101.17 °F)			201.304 (101.85 °F)			203.304 (102.52 °F)			205.304 (103.19 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.25267)	(112.156)	(0.20936)	(0.25017)	(112.185)	(0.20925)	(0.24772)	(112.214)	(0.20914)	(0.24530)	(112.241)	(0.20902)	
110	0.26172	114.119	0.21284	0.25850	114.004	0.21247	0.25533	113.889	0.21210	0.25221	113.773	0.21173	110
120	0.27150	116.287	0.21661	0.26825	116.182	0.21626	0.26505	116.076	0.21590	0.26191	115.970	0.21555	120
130	0.28086	118.409	0.22024	0.27758	118.313	0.21990	0.27435	118.216	0.21956	0.27119	118.118	0.21923	130
140	0.28987	120.497	0.22375	0.28656	120.407	0.22342	0.28330	120.317	0.22310	0.28010	120.227	0.22277	140
150	0.29860	122.556	0.22716	0.29524	122.473	0.22684	0.29195	122.389	0.22652	0.28871	122.305	0.22621	150
160	0.30707	124.594	0.23047	0.30368	124.516	0.23016	0.30034	124.437	0.22986	0.29706	124.358	0.22955	160
170	0.31533	126.614	0.23371	0.31189	126.540	0.23340	0.30851	126.466	0.23310	0.30519	126.392	0.23281	170
180	0.32340	128.620	0.23687	0.31991	128.551	0.23657	0.31649	128.481	0.23628	0.31313	128.411	0.23599	180
190	0.33130	130.616	0.23996	0.32777	130.550	0.23967	0.32430	130.484	0.23939	0.32089	130.418	0.23910	190
200	0.33905	132.603	0.24300	0.33547	132.541	0.24271	0.33196	132.479	0.24243	0.32850	132.416	0.24215	200
210	0.34667	134.585	0.24598	0.34304	134.526	0.24570	0.33948	134.466	0.24542	0.33598	134.407	0.24515	210
220	0.35417	136.562	0.24891	0.35049	136.506	0.24864	0.34688	136.450	0.24836	0.34333	136.393	0.24809	220
230	0.36156	138.537	0.25179	0.35783	138.484	0.25152	0.35417	138.430	0.25125	0.35058	138.376	0.25099	230
240	0.36885	140.511	0.25464	0.36508	140.460	0.25437	0.36137	140.409	0.25410	0.35772	140.357	0.25384	240
250	0.37606	142.485	0.25744	0.37223	142.436	0.25717	0.36847	142.387	0.25691	0.36478	142.338	0.25665	250
260	0.38318	144.460	0.26020	0.37930	144.413	0.25994	0.37549	144.366	0.25968	0.37175	144.319	0.25942	260
270	0.39023	146.437	0.26293	0.38630	146.392	0.26267	0.38244	146.347	0.26241	0.37865	146.302	0.26216	270
280	0.39722	148.417	0.26562	0.39323	148.374	0.26537	0.38932	148.331	0.26511	0.38548	148.287	0.26486	280
290	0.40414	150.401	0.26829	0.40010	150.359	0.26803	0.39614	150.317	0.26778	0.39225	150.276	0.26753	290
300	0.41100	152.388	0.27092	0.40691	152.348	0.27067	0.40290	152.308	0.27042	0.39896	152.268	0.27017	300
310	0.41781	154.380	0.27353	0.41367	154.341	0.27328	0.40961	154.303	0.27303	0.40562	154.264	0.27278	310
320	0.42457	156.377	0.27610	0.42038	156.340	0.27586	0.41627	156.302	0.27561	0.41222	156.265	0.27536	320
330	0.43129	158.380	0.27866	0.42705	158.343	0.27841	0.42288	158.307	0.27816	0.41879	158.271	0.27792	330
340	0.43797	160.388	0.28118	0.43367	160.353	0.28094	0.42945	160.318	0.28069	0.42530	160.283	0.28045	340
350	0.44460	162.402	0.28369	0.44025	162.369	0.28344	0.43598	162.335	0.28320	0.43178	162.301	0.28296	350
360	0.45120	164.423	0.28617	0.44680	164.391	0.28592	0.44247	164.358	0.28568	0.43823	164.325	0.28545	360
370	0.45777	166.451	0.28863	0.45331	166.419	0.28838	0.44893	166.388	0.28815	0.44464	166.356	0.28791	370
380	0.46430	168.486	0.29106	0.45979	168.455	0.29082	0.45536	168.424	0.29058	0.45101	168.393	0.29035	380
390	0.47080	170.527	0.29348	0.46624	170.498	0.29324	0.46176	170.468	0.29300	0.45736	170.438	0.29277	390
400	0.47728	172.576	0.29588	0.47266	172.547	0.29564	0.46813	172.518	0.29540	0.46368	172.489	0.29517	400
410	0.48373	174.633	0.29826	0.47906	174.605	0.29802	0.47448	174.576	0.29778	0.46998	174.548	0.29755	410

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	222			224			226			228			TEMP. °F
	207.304 (103.86 °F)			209.304 (104.52 °F)			211.304 (105.18 °F)			213.304 (105.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.24293)	(112.269)	(0.20891)	(0.24060)	(112.295)	(0.20880)	(0.23830)	(112.321)	(0.20869)	(0.23605)	(112.346)	(0.20858)	
110	0.24914	113.656	0.21136	0.24612	113.538	0.21099	0.24315	113.420	0.21063	0.24023	113.300	0.21026	110
120	0.25883	115.864	0.21520	0.25579	115.756	0.21485	0.25280	115.648	0.21451	0.24987	115.540	0.21416	120
130	0.26807	118.020	0.21889	0.26501	117.921	0.21856	0.26200	117.822	0.21822	0.25904	117.723	0.21789	130
140	0.27695	120.136	0.22245	0.27386	120.045	0.22213	0.27082	119.953	0.22181	0.26783	119.861	0.22149	140
150	0.28553	122.220	0.22590	0.28240	122.135	0.22558	0.27933	122.050	0.22527	0.27631	121.964	0.22497	150
160	0.29384	124.279	0.22925	0.29068	124.200	0.22894	0.28757	124.120	0.22864	0.28451	124.040	0.22834	160
170	0.30193	126.318	0.23251	0.29873	126.244	0.23222	0.29558	126.169	0.23192	0.29249	126.094	0.23163	170
180	0.30983	128.341	0.23570	0.30658	128.271	0.23541	0.30339	128.201	0.23512	0.30026	128.130	0.23484	180
190	0.31755	130.352	0.23882	0.31426	130.286	0.23854	0.31103	130.219	0.23825	0.30785	130.153	0.23798	190
200	0.32511	132.354	0.24187	0.32178	132.291	0.24160	0.31851	132.228	0.24132	0.31529	132.165	0.24105	200
210	0.33254	134.348	0.24487	0.32917	134.288	0.24460	0.32585	134.228	0.24433	0.32259	134.169	0.24406	210
220	0.33985	136.337	0.24782	0.33643	136.280	0.24755	0.33307	136.223	0.24729	0.32976	136.166	0.24702	220
230	0.34705	138.322	0.25072	0.34358	138.268	0.25046	0.34017	138.214	0.25020	0.33682	138.160	0.24994	230
240	0.35414	140.306	0.25358	0.35063	140.254	0.25332	0.34718	140.203	0.25306	0.34379	140.151	0.25280	240
250	0.36115	142.289	0.25639	0.35759	142.239	0.25613	0.35409	142.190	0.25588	0.35065	142.141	0.25563	250
260	0.36808	144.272	0.25917	0.36447	144.225	0.25891	0.36092	144.178	0.25866	0.35744	144.130	0.25841	260
270	0.37493	146.257	0.26191	0.37127	146.211	0.26165	0.36768	146.166	0.26140	0.36415	146.121	0.26116	270
280	0.38171	148.244	0.26461	0.37801	148.200	0.26436	0.37437	148.157	0.26411	0.37079	148.113	0.26387	280
290	0.38843	150.234	0.26728	0.38468	150.192	0.26704	0.38099	150.150	0.26679	0.37737	150.108	0.26655	290
300	0.39509	152.227	0.26992	0.39129	152.187	0.26968	0.38756	152.147	0.26944	0.38389	152.106	0.26920	300
310	0.40170	154.225	0.27254	0.39785	154.186	0.27229	0.39407	154.147	0.27205	0.39035	154.108	0.27181	310
320	0.40825	156.227	0.27512	0.40436	156.190	0.27488	0.40053	156.152	0.27464	0.39677	156.115	0.27440	320
330	0.41477	158.235	0.27768	0.41082	158.199	0.27744	0.40694	158.163	0.27720	0.40313	158.126	0.27697	330
340	0.42124	160.248	0.28021	0.41724	160.213	0.27998	0.41332	160.178	0.27974	0.40946	160.143	0.27951	340
350	0.42767	162.267	0.28272	0.42362	162.233	0.28249	0.41965	162.200	0.28225	0.41574	162.166	0.28202	350
360	0.43406	164.293	0.28521	0.42997	164.260	0.28497	0.42594	164.227	0.28474	0.42199	164.194	0.28451	360
370	0.44042	166.324	0.28767	0.43628	166.292	0.28744	0.43221	166.261	0.28721	0.42821	166.229	0.28698	370
380	0.44675	168.363	0.29011	0.44255	168.332	0.28988	0.43844	168.301	0.28965	0.43439	168.270	0.28942	380
390	0.45304	170.408	0.29254	0.44880	170.378	0.29230	0.44464	170.348	0.29207	0.44054	170.318	0.29185	390
400	0.45931	172.460	0.29494	0.45502	172.431	0.29471	0.45081	172.402	0.29448	0.44667	172.373	0.29425	400
410	0.46556	174.520	0.29732	0.46122	174.492	0.29709	0.45695	174.463	0.29686	0.45276	174.435	0.29664	410

TEMP. °F	230			232			234			236			TEMP. °F
	215.304 (106.48 °F)			217.304 (107.13 °F)			219.304 (107.77 °F)			221.304 (108.41 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.23383)	(112.371)	(0.20847)	(0.23165)	(112.395)	(0.20836)	(0.22951)	(112.419)	(0.20825)	(0.22739)	(112.442)	(0.20814)	
110	0.23735	113.180	0.20989	0.23452	113.058	0.20953	0.23172	112.936	0.20916	0.22898	112.813	0.20880	110
120	0.24697	115.431	0.21381	0.24413	115.320	0.21346	0.24133	115.210	0.21312	0.23857	115.098	0.21277	120
130	0.25613	117.622	0.21756	0.25326	117.522	0.21723	0.25044	117.420	0.21690	0.24767	117.318	0.21657	130
140	0.26489	119.768	0.22117	0.26200	119.675	0.22085	0.25916	119.582	0.22053	0.25636	119.488	0.22022	140
150	0.27334	121.878	0.22466	0.27042	121.792	0.22435	0.26754	121.705	0.22405	0.26472	121.618	0.22374	150
160	0.28151	123.960	0.22804	0.27855	123.879	0.22775	0.27565	123.798	0.22745	0.27279	123.717	0.22716	160
170	0.28945	126.019	0.23134	0.28646	125.943	0.23105	0.28351	125.867	0.23076	0.28062	125.791	0.23048	170
180	0.29718	128.059	0.23456	0.29415	127.988	0.23427	0.29117	127.917	0.23399	0.28824	127.846	0.23371	180
190	0.30473	130.086	0.23770	0.30166	130.019	0.23742	0.29865	129.952	0.23715	0.29568	129.885	0.23688	190
200	0.31213	132.102	0.24078	0.30902	132.038	0.24051	0.30597	131.975	0.24024	0.30296	131.911	0.23997	200
210	0.31939	134.109	0.24380	0.31624	134.048	0.24353	0.31314	133.988	0.24327	0.31010	133.928	0.24301	210
220	0.32652	136.109	0.24676	0.32332	136.052	0.24650	0.32019	135.995	0.24624	0.31710	135.938	0.24598	220
230	0.33353	138.106	0.24968	0.33030	138.051	0.24942	0.32712	137.997	0.24917	0.32400	137.942	0.24891	230
240	0.34045	140.099	0.25255	0.33717	140.047	0.25229	0.33395	139.995	0.25204	0.33079	139.943	0.25179	240
250	0.34728	142.091	0.25537	0.34396	142.041	0.25512	0.34069	141.992	0.25488	0.33748	141.942	0.25463	250
260	0.35402	144.083	0.25816	0.35065	144.035	0.25791	0.34735	143.988	0.25767	0.34409	143.940	0.25742	260
270	0.36068	146.075	0.26091	0.35727	146.030	0.26067	0.35392	145.984	0.26042	0.35063	145.938	0.26018	270
280	0.36728	148.069	0.26363	0.36382	148.026	0.26338	0.36043	147.982	0.26314	0.35709	147.938	0.26290	280
290	0.37381	150.066	0.26631	0.37031	150.024	0.26607	0.36687	149.982	0.26583	0.36349	149.940	0.26559	290
300	0.38028	152.066	0.26896	0.37674	152.025	0.26872	0.37326	151.985	0.26848	0.36983	151.944	0.26825	300
310	0.38670	154.069	0.27158	0.38311	154.030	0.27134	0.37959	153.991	0.27111	0.37612	153.952	0.27087	310
320	0.39307	156.077	0.27417	0.38944	156.040	0.27393	0.38586	156.002	0.27370	0.38235	155.964	0.27347	320
330	0.39939	158.090	0.27673	0.39571	158.054	0.27650	0.39210	158.017	0.27627	0.38854	157.981	0.27604	330
340	0.40567	160.108	0.27927	0.40195	160.073	0.27904	0.39829	160.038	0.27881	0.39469	160.003	0.27859	340
350	0.41191	162.132	0.28179	0.40814	162.098	0.28156	0.40443	162.064	0.28133	0.40079	162.030	0.28110	350
360	0.41811	164.161	0.28428	0.41430	164.128	0.28405	0.41055	164.095	0.28382	0.40686	164.062	0.28360	360
370	0.42428	166.197	0.28675	0.42042	166.165	0.28652	0.41662	166.133	0.28630	0.41289	166.101	0.28607	370
380	0.43041	168.239	0.28919	0.42651	168.208	0.28897	0.42267	168.177	0.28874	0.41889	168.146	0.28852	380
390	0.43652	170.288	0.29162	0.43257	170.258	0.29140	0.42868	170.228	0.29117	0.42486	170.198	0.29095	390
400	0.44260	172.344	0.29402	0.43860	172.315	0.29380	0.43467	172.286	0.29358	0.43080	172.257	0.29336	400
410	0.44865	174.407	0.29641	0.44460	174.379	0.29619	0.44063	174.350	0.29597	0.43672	174.322	0.29575	410

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	238			240			242			244			TEMP. °F
	223.304 (109.04 °F)			225.304 (109.67 °F)			227.304 (110.30 °F)			229.304 (110.92 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.22532)	(112.465)	(0.20804)	(0.22327)	(112.487)	(0.20793)	(0.22126)	(112.508)	(0.20782)	(0.21928)	(112.529)	(0.20771)	
110	0.22627	112.689	0.20843	0.22360	112.564	0.20806	—	—	—	—	—	—	110
120	0.23585	114.986	0.21243	0.23318	114.873	0.21208	0.23055	114.759	0.21174	0.22795	114.645	0.21139	120
130	0.24493	117.216	0.21624	0.24225	117.113	0.21591	0.23960	117.009	0.21559	0.23699	116.905	0.21526	130
140	0.25360	119.394	0.21990	0.25089	119.299	0.21959	0.24822	119.204	0.21928	0.24560	119.108	0.21896	140
150	0.26193	121.531	0.22344	0.25920	121.443	0.22314	0.25650	121.355	0.22283	0.25385	121.266	0.22253	150
160	0.26998	123.636	0.22686	0.26721	123.554	0.22657	0.26449	123.472	0.22628	0.26181	123.390	0.22599	160
170	0.27778	125.715	0.23019	0.27498	125.639	0.22991	0.27222	125.562	0.22962	0.26951	125.485	0.22934	170
180	0.28536	127.774	0.23344	0.28253	127.702	0.23316	0.27974	127.630	0.23288	0.27700	127.558	0.23261	180
190	0.29277	129.817	0.23660	0.28990	129.749	0.23633	0.28707	129.682	0.23607	0.28429	129.613	0.23580	190
200	0.30001	131.847	0.23971	0.29710	131.783	0.23944	0.29424	131.719	0.23918	0.29143	131.655	0.23892	200
210	0.30710	133.867	0.24274	0.30416	133.807	0.24248	0.30126	133.746	0.24223	0.29841	133.685	0.24197	210
220	0.31407	135.880	0.24573	0.31109	135.822	0.24547	0.30815	135.765	0.24522	0.30526	135.707	0.24497	220
230	0.32092	137.887	0.24866	0.31790	137.832	0.24841	0.31493	137.777	0.24816	0.31200	137.722	0.24791	230
240	0.32767	139.891	0.25154	0.32461	139.838	0.25130	0.32160	139.786	0.25105	0.31863	139.734	0.25081	240
250	0.33433	141.892	0.25438	0.33122	141.842	0.25414	0.32817	141.792	0.25390	0.32517	141.742	0.25366	250
260	0.34090	143.892	0.25718	0.33775	143.844	0.25694	0.33466	143.796	0.25670	0.33162	143.748	0.25646	260
270	0.34739	145.892	0.25994	0.34420	145.847	0.25970	0.34107	145.801	0.25947	0.33799	145.755	0.25923	270
280	0.35381	147.894	0.26267	0.35059	147.850	0.26243	0.34741	147.806	0.26220	0.34429	147.762	0.26196	280
290	0.36017	149.897	0.26536	0.35690	149.855	0.26512	0.35369	149.813	0.26489	0.35052	149.770	0.26466	290
300	0.36647	151.904	0.26802	0.36316	151.863	0.26778	0.35990	151.822	0.26755	0.35670	151.781	0.26733	300
310	0.37271	153.913	0.27064	0.36936	153.874	0.27041	0.36606	153.835	0.27019	0.36282	153.795	0.26996	310
320	0.37890	155.927	0.27324	0.37551	155.889	0.27301	0.37217	155.851	0.27279	0.36888	155.813	0.27256	320
330	0.38505	157.945	0.27581	0.38161	157.908	0.27559	0.37823	157.872	0.27536	0.37490	157.835	0.27514	330
340	0.39115	159.967	0.27836	0.38767	159.932	0.27814	0.38425	159.897	0.27791	0.38088	159.862	0.27769	340
350	0.39721	161.996	0.28088	0.39369	161.962	0.28066	0.39022	161.927	0.28044	0.38682	161.893	0.28022	350
360	0.40323	164.030	0.28338	0.39967	163.997	0.28315	0.39616	163.964	0.28294	0.39272	163.930	0.28272	360
370	0.40922	166.069	0.28585	0.40562	166.037	0.28563	0.40207	166.005	0.28541	0.39858	165.973	0.28519	370
380	0.41518	168.115	0.28830	0.41153	168.084	0.28808	0.40794	168.053	0.28786	0.40441	168.022	0.28765	380
390	0.42111	170.168	0.29073	0.41741	170.138	0.29051	0.41378	170.108	0.29030	0.41021	170.078	0.29008	390
400	0.42700	172.227	0.29314	0.42327	172.198	0.29292	0.41959	172.169	0.29271	0.41598	172.140	0.29249	400
410	0.43288	174.294	0.29553	0.42910	174.265	0.29531	0.42538	174.237	0.29510	0.42173	174.208	0.29489	410
420	—	—	—	—	—	—	0.43114	176.312	0.29747	0.42744	176.284	0.29726	420

TEMP. °F	246			248			250			252			TEMP. °F
	231.304 (111.54 °F)			233.304 (112.15 °F)			235.304 (112.76 °F)			237.304 (113.37 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.21733)	(112.549)	(0.20761)	(0.21541)	(112.569)	(0.20750)	(0.21351)	(112.588)	(0.20740)	(0.21165)	(112.607)	(0.20729)	
120	0.22539	114.530	0.21105	0.22287	114.414	0.21071	0.22038	114.297	0.21036	0.21793	114.179	0.21002	120
130	0.23442	116.800	0.21493	0.23189	116.695	0.21461	0.22939	116.589	0.21428	0.22693	116.482	0.21396	130
140	0.24301	119.012	0.21865	0.24046	118.915	0.21834	0.23795	118.818	0.21803	0.23547	118.720	0.21772	140
150	0.25124	121.177	0.22224	0.24867	121.088	0.22194	0.24613	120.998	0.22164	0.24364	120.908	0.22134	150
160	0.25917	123.307	0.22570	0.25657	123.224	0.22541	0.25401	123.141	0.22512	0.25149	123.057	0.22484	160
170	0.26684	125.408	0.22906	0.26422	125.330	0.22878	0.26163	125.252	0.22851	0.25908	125.174	0.22823	170
180	0.27430	127.486	0.23234	0.27164	127.413	0.23206	0.26902	127.340	0.23179	0.26645	127.267	0.23153	180
190	0.28156	129.545	0.23553	0.27887	129.477	0.23527	0.27622	129.408	0.23500	0.27361	129.339	0.23474	190
200	0.28866	131.590	0.23866	0.28593	131.526	0.23840	0.28325	131.461	0.23814	0.28061	131.396	0.23788	200
210	0.29561	133.624	0.24171	0.29285	133.563	0.24146	0.29013	133.501	0.24121	0.28746	133.440	0.24096	210
220	0.30242	135.649	0.24472	0.29963	135.591	0.24447	0.29688	135.533	0.24422	0.29417	135.474	0.24397	220
230	0.30912	137.667	0.24766	0.30629	137.612	0.24742	0.30350	137.557	0.24718	0.30076	137.501	0.24693	230
240	0.31572	139.681	0.25056	0.31285	139.628	0.25032	0.31002	139.576	0.25008	0.30724	139.523	0.24984	240
250	0.32221	141.692	0.25342	0.31931	141.641	0.25318	0.31645	141.591	0.25294	0.31363	141.540	0.25271	250
260	0.32863	143.700	0.25623	0.32568	143.652	0.25599	0.32278	143.604	0.25576	0.31993	143.556	0.25553	260
270	0.33496	145.709	0.25900	0.33197	145.663	0.25877	0.32904	145.617	0.25854	0.32615	145.570	0.25831	270
280	0.34122	147.718	0.26173	0.33820	147.674	0.26150	0.33522	147.629	0.26127	0.33230	147.585	0.26105	280
290	0.34741	149.728	0.26443	0.34435	149.686	0.26421	0.34134	149.643	0.26398	0.33838	149.601	0.26375	290
300	0.35355	151.741	0.26710	0.35045	151.700	0.26687	0.34740	151.659	0.26665	0.34439	151.618	0.26643	300
310	0.35963	153.756	0.26974	0.35649	153.717	0.26951	0.35340	153.677	0.26929	0.35036	153.638	0.26907	310
320	0.36565	155.775	0.27234	0.36248	155.737	0.27212	0.35935	155.699	0.27190	0.35627	155.661	0.27168	320
330	0.37163	157.799	0.27492	0.36842	157.762	0.27470	0.36525	157.725	0.27448	0.36213	157.689	0.27426	330
340	0.37757	159.826	0.27747	0.37431	159.791	0.27725	0.37111	159.756	0.27704	0.36795	159.720	0.27682	340
350	0.38347	161.859	0.28000	0.38017	161.825	0.27978	0.37692	161.791	0.27957	0.37373	161.757	0.27935	350
360	0.38932	163.897	0.28250	0.38599	163.864	0.28228	0.38270	163.831	0.28207	0.37947	163.798	0.28186	360
370	0.39515	165.941	0.28498	0.39177	165.909	0.28476	0.38845	165.877	0.28455	0.38517	165.845	0.28434	370
380	0.40094	167.991	0.28743	0.39752	167.960	0.28722	0.39416	167.929	0.28701	0.39085	167.898	0.28680	380
390	0.40670	170.048	0.28987	0.40324	170.018	0.28966	0.39984	169.987	0.28945	0.39649	169.957	0.28924	390
400	0.41243	172.110	0.29228	0.40893	172.081	0.29207	0.40549	172.052	0.29186	0.40210	172.023	0.29165	400
410	0.41813	174.180	0.29468	0.41459	174.152	0.29447	0.41111	174.123	0.29426	0.40768	174.095	0.29405	410
420	0.42381	176.256	0.29705	0.42023	176.229	0.29684	0.41671	176.201	0.29663	0.41324	176.173	0.29643	420

TABLE II "FREON" 22 SUPERHEATED VAPOR—CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	254			256			258			260			TEMP. °F
	239.304			241.304			243.304			245.304			
	(113.97 °F)			(114.57 °F)			(115.17 °F)			(115.76 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.20982)	(112.625)	(0.20719)	(0.20801)	(112.642)	(0.20708)	(0.20622)	(112.659)	(0.20698)	(0.20447)	(112.676)	(0.20688)	
120	0.21551	114.060	0.20968	0.21313	113.941	0.20933	0.21078	113.820	0.20899	0.20846	113.699	0.20865	120
130	0.22451	116.374	0.21364	0.22212	116.266	0.21331	0.21977	116.158	0.21299	0.21744	116.048	0.21267	130
140	0.23304	118.622	0.21742	0.23063	118.523	0.21711	0.22827	118.424	0.21680	0.22593	118.324	0.21649	140
150	0.24118	120.818	0.22105	0.23876	120.727	0.22075	0.23638	120.635	0.22046	0.23402	120.543	0.22016	150
160	0.24901	122.973	0.22455	0.24657	122.888	0.22427	0.24416	122.804	0.22399	0.24179	122.719	0.22370	160
170	0.25657	125.096	0.22795	0.25410	125.017	0.22768	0.25167	124.938	0.22740	0.24927	124.859	0.22713	170
180	0.26391	127.193	0.23126	0.26141	127.120	0.23099	0.25895	127.046	0.23072	0.25653	126.972	0.23046	180
190	0.27105	129.270	0.23448	0.26852	129.201	0.23422	0.26603	129.132	0.23396	0.26358	129.062	0.23370	190
200	0.27801	131.331	0.23763	0.27545	131.265	0.23737	0.27293	131.200	0.23712	0.27045	131.134	0.23687	200
210	0.28482	133.378	0.24071	0.28223	133.317	0.24046	0.27968	133.255	0.24021	0.27717	133.193	0.23996	210
220	0.29150	135.416	0.24373	0.28888	135.357	0.24348	0.28629	135.299	0.24324	0.28374	135.240	0.24300	220
230	0.29806	137.446	0.24669	0.29540	137.390	0.24645	0.29278	137.334	0.24621	0.29020	137.278	0.24598	230
240	0.30451	139.470	0.24961	0.30181	139.417	0.24937	0.29916	139.364	0.24913	0.29655	139.310	0.24890	240
250	0.31086	141.490	0.25247	0.30813	141.439	0.25224	0.30544	141.389	0.25201	0.30280	141.338	0.25178	250
260	0.31712	143.508	0.25530	0.31436	143.459	0.25507	0.31164	143.411	0.25484	0.30895	143.362	0.25461	260
270	0.32330	145.524	0.25808	0.32050	145.478	0.25785	0.31775	145.431	0.25763	0.31503	145.385	0.25740	270
280	0.32941	147.541	0.26082	0.32658	147.496	0.26060	0.32379	147.452	0.26038	0.32104	147.407	0.26015	280
290	0.33546	149.558	0.26353	0.33258	149.515	0.26331	0.32976	149.472	0.26309	0.32697	149.430	0.26287	290
300	0.34144	151.577	0.26621	0.33853	151.536	0.26599	0.33567	151.495	0.26577	0.33285	151.454	0.26555	300
310	0.34737	153.599	0.26885	0.34442	153.559	0.26863	0.34152	153.520	0.26842	0.33866	153.480	0.26820	310
320	0.35324	155.623	0.27146	0.35026	155.585	0.27125	0.34732	155.547	0.27103	0.34443	155.509	0.27082	320
330	0.35906	157.652	0.27405	0.35604	157.615	0.27384	0.35307	157.578	0.27362	0.35014	157.542	0.27341	330
340	0.36485	159.685	0.27661	0.36179	159.649	0.27639	0.35878	159.614	0.27618	0.35582	159.578	0.27597	340
350	0.37059	161.722	0.27914	0.36749	161.688	0.27893	0.36445	161.654	0.27872	0.36145	161.619	0.27851	350
360	0.37629	163.765	0.28165	0.37316	163.732	0.28144	0.37007	163.699	0.28123	0.36704	163.665	0.28102	360
370	0.38196	165.813	0.28413	0.37879	165.781	0.28392	0.37567	165.749	0.28371	0.37260	165.717	0.28351	370
380	0.38759	167.867	0.28659	0.38438	167.836	0.28638	0.38123	167.805	0.28618	0.37812	167.773	0.28597	380
390	0.39319	169.927	0.28903	0.38995	169.897	0.28882	0.38675	169.867	0.28862	0.38361	169.836	0.28842	390
400	0.39877	171.993	0.29145	0.39548	171.964	0.29124	0.39225	171.935	0.29104	0.38907	171.905	0.29084	400
410	0.40431	174.066	0.29384	0.40099	174.038	0.29364	0.39773	174.009	0.29344	0.39451	173.981	0.29324	410
420	0.40983	176.146	0.29622	0.40648	176.118	0.29602	0.40317	176.090	0.29582	0.39992	176.063	0.29562	420

TEMP. °F	262			264			266			268			TEMP. °F
	247.304			249.304			251.304			253.304			
	(116.36 °F)			(116.94 °F)			(117.53 °F)			(118.11 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.20274)	(112.692)	(0.20677)	(0.20103)	(112.708)	(0.20667)	(0.19935)	(112.723)	(0.20657)	(0.19769)	(112.737)	(0.20647)	
120	0.20617	113.576	0.20831	0.20390	113.453	0.20796	0.20167	113.329	0.20762	0.19947	113.203	0.20727	120
130	0.21515	115.938	0.21234	0.21289	115.827	0.21202	0.21066	115.715	0.21170	0.20846	115.603	0.21138	130
140	0.22363	118.224	0.21619	0.22136	118.123	0.21588	0.21912	118.021	0.21558	0.21692	117.919	0.21527	140
150	0.23171	120.451	0.21987	0.22942	120.358	0.21958	0.22717	120.265	0.21929	0.22495	120.172	0.21900	150
160	0.23945	122.633	0.22342	0.23714	122.548	0.22314	0.23487	122.461	0.22286	0.23263	122.375	0.22258	160
170	0.24691	124.780	0.22686	0.24458	124.700	0.22659	0.24229	124.620	0.22632	0.24003	124.539	0.22605	170
180	0.25414	126.897	0.23019	0.25178	126.823	0.22993	0.24947	126.748	0.22967	0.24718	126.673	0.22941	180
190	0.26116	128.992	0.23344	0.25878	128.922	0.23319	0.25643	128.852	0.23293	0.25412	128.781	0.23268	190
200	0.26800	131.068	0.23662	0.26559	131.003	0.23637	0.26322	130.936	0.23612	0.26088	130.870	0.23587	200
210	0.27469	133.130	0.23972	0.27225	133.068	0.23947	0.26985	133.006	0.23923	0.26748	132.943	0.23899	210
220	0.28124	135.181	0.24276	0.27877	135.122	0.24252	0.27633	135.062	0.24228	0.27393	135.003	0.24204	220
230	0.28766	137.222	0.24574	0.28516	137.166	0.24550	0.28269	137.110	0.24527	0.28027	137.054	0.24504	230
240	0.29398	139.257	0.24867	0.29144	139.204	0.24844	0.28895	139.150	0.24821	0.28649	139.096	0.24798	240
250	0.30019	141.287	0.25155	0.29762	141.236	0.25132	0.29510	141.185	0.25109	0.29260	141.134	0.25087	250
260	0.30632	143.314	0.25438	0.30372	143.265	0.25416	0.30115	143.216	0.25394	0.29863	143.167	0.25371	260
270	0.31236	145.338	0.25718	0.30973	145.292	0.25696	0.30713	145.245	0.25674	0.30458	145.198	0.25652	270
280	0.31833	147.362	0.25993	0.31566	147.318	0.25971	0.31303	147.273	0.25950	0.31044	147.228	0.25928	280
290	0.32423	149.387	0.26265	0.32153	149.344	0.26244	0.31887	149.301	0.26222	0.31625	149.258	0.26201	290
300	0.33007	151.413	0.26534	0.32733	151.371	0.26512	0.32464	151.330	0.26491	0.32198	151.289	0.26470	300
310	0.33585	153.440	0.26799	0.33308	153.401	0.26778	0.33035	153.361	0.26756	0.32766	153.321	0.26735	310
320	0.34158	155.471	0.27061	0.33878	155.433	0.27040	0.33601	155.394	0.27019	0.33329	155.356	0.26998	320
330	0.34726	157.505	0.27320	0.34442	157.468	0.27299	0.34163	157.431	0.27278	0.33887	157.394	0.27258	330
340	0.35290	159.543	0.27577	0.35002	159.507	0.27556	0.34719	159.471	0.27535	0.34440	159.436	0.27515	340
350	0.35849	161.585	0.27830	0.35558	161.551	0.27810	0.35272	161.516	0.27789	0.34990	161.482	0.27769	350
360	0.36405	163.632	0.28082	0.36111	163.599	0.28061	0.35821	163.565	0.28041	0.35535	163.532	0.28021	360
370	0.36957	165.684	0.28330	0.36659	165.652	0.28310	0.36366	165.620	0.28290	0.36077	165.588	0.28270	370
380	0.37506	167.742	0.28577	0.37204	167.711	0.28557	0.36907	167.680	0.28537	0.36615	167.649	0.28517	380
390	0.38051	169.806	0.28821	0.37746	169.776	0.28801	0.37446	169.745	0.28781	0.37150	169.715	0.28762	390
400	0.38594	171.876	0.29064	0.38286	171.846	0.29044	0.37982	171.817	0.29024	0.37682	171.788	0.29004	400
410	0.39134	173.952	0.29304	0.38822	173.924	0.29284	0.38515	173.895	0.29264	0.38212	173.866	0.29244	410
420	0.39671	176.035	0.29542	0.39356	176.007	0.29522	0.39045	175.979	0.29502	0.38739	175.951	0.29483	420

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	270			272			274			276			TEMP. °F
	255.304 (118.68 °F)			257.304 (119.26 °F)			259.304 (119.83 °F)			261.304 (120.39 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.19606)	(112.751)	(0.20637)	(0.19444)	(112.765)	(0.20626)	(0.19285)	(112.778)	(0.20616)	(0.19128)	(112.790)	(0.20606)	
120	0.19729	113.077	0.20693	0.19514	112.949	0.20658	0.19301	112.821	0.20624	—	—	—	120
130	0.20629	115.490	0.21106	0.20414	115.376	0.21073	0.20203	115.261	0.21041	0.19994	115.146	0.21009	130
140	0.21474	117.816	0.21497	0.21259	117.713	0.21466	0.21047	117.609	0.21436	0.20838	117.505	0.21406	140
150	0.22276	120.078	0.21871	0.22060	119.983	0.21842	0.21846	119.888	0.21813	0.21636	119.793	0.21784	150
160	0.23042	122.288	0.22230	0.22825	122.201	0.22203	0.22610	122.113	0.22175	0.22398	122.025	0.22147	160
170	0.23780	124.459	0.22578	0.23560	124.378	0.22551	0.23343	124.296	0.22524	0.23130	124.215	0.22498	170
180	0.24493	126.597	0.22915	0.24271	126.522	0.22889	0.24052	126.446	0.22863	0.23836	126.370	0.22837	180
190	0.25184	128.711	0.23243	0.24960	128.640	0.23217	0.24738	128.569	0.23192	0.24520	128.497	0.23167	190
200	0.25857	130.804	0.23562	0.25630	130.737	0.23538	0.25406	130.670	0.23513	0.25185	130.603	0.23489	200
210	0.26514	132.880	0.23875	0.26284	132.817	0.23851	0.26058	132.754	0.23827	0.25834	132.691	0.23803	210
220	0.27157	134.944	0.24181	0.26924	134.884	0.24157	0.26695	134.824	0.24134	0.26468	134.764	0.24110	220
230	0.27787	136.997	0.24481	0.27552	136.941	0.24458	0.27319	136.884	0.24435	0.27090	136.827	0.24412	230
240	0.28406	139.043	0.24775	0.28167	138.989	0.24752	0.27932	138.935	0.24730	0.27700	138.881	0.24707	240
250	0.29015	141.083	0.25065	0.28773	141.031	0.25042	0.28535	140.980	0.25020	0.28300	140.928	0.24998	250
260	0.29614	143.118	0.25349	0.29369	143.069	0.25327	0.29128	143.020	0.25306	0.28890	142.971	0.25284	260
270	0.30206	145.152	0.25630	0.29958	145.105	0.25608	0.29713	145.058	0.25587	0.29472	145.011	0.25565	270
280	0.30789	147.183	0.25906	0.30538	147.138	0.25885	0.30291	147.094	0.25864	0.30046	147.048	0.25843	280
290	0.31366	149.215	0.26179	0.31112	149.172	0.26158	0.30861	149.129	0.26137	0.30614	149.086	0.26116	290
300	0.31937	151.247	0.26449	0.31679	151.206	0.26428	0.31425	151.165	0.26407	0.31175	151.123	0.26386	300
310	0.32502	153.281	0.26715	0.32241	153.242	0.26694	0.31984	153.202	0.26673	0.31730	153.162	0.26653	310
320	0.33061	155.318	0.26977	0.32797	155.279	0.26957	0.32537	155.241	0.26936	0.32280	155.203	0.26916	320
330	0.33616	157.357	0.27237	0.33348	157.320	0.27217	0.33085	157.283	0.27197	0.32825	157.246	0.27177	330
340	0.34166	159.400	0.27494	0.33895	159.364	0.27474	0.33628	159.329	0.27454	0.33365	159.293	0.27434	340
350	0.34712	161.447	0.27749	0.34438	161.413	0.27729	0.34168	161.378	0.27709	0.33901	161.343	0.27689	350
360	0.35253	163.499	0.28001	0.34976	163.465	0.27981	0.34703	163.432	0.27961	0.34434	163.399	0.27941	360
370	0.35792	165.555	0.28250	0.35511	165.523	0.28230	0.35235	165.491	0.28211	0.34962	165.458	0.28191	370
380	0.36327	167.617	0.28497	0.36043	167.586	0.28477	0.35763	167.555	0.28458	0.35487	167.523	0.28438	380
390	0.36859	169.685	0.28742	0.36571	169.654	0.28722	0.36288	169.624	0.28703	0.36009	169.594	0.28684	390
400	0.37387	171.758	0.28984	0.37097	171.729	0.28965	0.36811	171.699	0.28946	0.36528	171.670	0.28926	400
410	0.37914	173.838	0.29225	0.37620	173.809	0.29206	0.37330	173.781	0.29186	0.37045	173.752	0.29167	410
420	0.38437	175.924	0.29463	0.38140	175.896	0.29444	0.37847	175.868	0.29425	0.37558	175.840	0.29406	420
430	—	—	—	—	—	—	—	—	—	0.38070	177.935	0.29643	430

TEMP. °F	278			280			282			284			TEMP. °F
	263.304 (120.96 °F)			265.304 (121.52 °F)			267.304 (122.08 °F)			269.304 (122.64 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.18974)	(112.802)	(0.20596)	(0.18821)	(112.814)	(0.20586)	(0.18670)	(112.825)	(0.20576)	(0.18522)	(112.836)	(0.20566)	
130	0.19787	115.029	0.20977	0.19583	114.912	0.20944	0.19382	114.794	0.20912	0.19183	114.675	0.20880	130
140	0.20631	117.400	0.21375	0.20427	117.294	0.21345	0.20226	117.188	0.21315	0.20027	117.081	0.21285	140
150	0.21429	119.697	0.21755	0.21224	119.600	0.21726	0.21022	119.503	0.21698	0.20822	119.406	0.21669	150
160	0.22189	121.937	0.22120	0.21983	121.848	0.22092	0.21779	121.759	0.22065	0.21579	121.670	0.22037	160
170	0.22919	124.133	0.22471	0.22711	124.051	0.22445	0.22506	123.968	0.22418	0.22303	123.885	0.22392	170
180	0.23623	126.294	0.22812	0.23413	126.217	0.22786	0.23206	126.140	0.22761	0.23001	126.063	0.22735	180
190	0.24305	128.426	0.23142	0.24092	128.354	0.23118	0.23883	128.282	0.23093	0.23676	128.210	0.23068	190
200	0.24968	130.536	0.23465	0.24753	130.468	0.23441	0.24541	130.401	0.23417	0.24332	130.333	0.23393	200
210	0.25614	132.627	0.23779	0.25396	132.564	0.23756	0.25182	132.500	0.23732	0.24971	132.436	0.23709	210
220	0.26245	134.704	0.24087	0.26025	134.644	0.24064	0.25809	134.584	0.24041	0.25595	134.524	0.24018	220
230	0.26864	136.770	0.24389	0.26641	136.713	0.24366	0.26422	136.656	0.24344	0.26205	136.599	0.24321	230
240	0.27471	138.827	0.24685	0.27246	138.773	0.24663	0.27023	138.718	0.24641	0.26804	138.664	0.24619	240
250	0.28068	140.877	0.24976	0.27840	140.825	0.24954	0.27615	140.773	0.24932	0.27393	140.722	0.24911	250
260	0.28655	142.922	0.25262	0.28424	142.873	0.25241	0.28196	142.823	0.25219	0.27971	142.774	0.25198	260
270	0.29235	144.964	0.25544	0.29000	144.917	0.25523	0.28769	144.869	0.25502	0.28542	144.822	0.25481	270
280	0.29806	147.003	0.25822	0.29569	146.958	0.25801	0.29335	146.913	0.25780	0.29104	146.868	0.25759	280
290	0.30370	149.042	0.26095	0.30130	148.999	0.26075	0.29893	148.956	0.26054	0.29660	148.912	0.26034	290
300	0.30928	151.081	0.26366	0.30685	151.040	0.26345	0.30445	150.998	0.26325	0.30209	150.957	0.26304	300
310	0.31480	153.122	0.26632	0.31234	153.082	0.26612	0.30991	153.042	0.26592	0.30752	153.002	0.26572	310
320	0.32027	155.164	0.26896	0.31778	155.125	0.26876	0.31532	155.087	0.26856	0.31290	155.048	0.26836	320
330	0.32569	157.209	0.27157	0.32317	157.172	0.27137	0.32068	157.135	0.27117	0.31823	157.097	0.27097	330
340	0.33106	159.257	0.27414	0.32851	159.221	0.27395	0.32599	159.185	0.27375	0.32351	159.149	0.27355	340
350	0.33639	161.309	0.27669	0.33381	161.274	0.27650	0.33126	161.240	0.27630	0.32874	161.205	0.27611	350
360	0.34168	163.365	0.27922	0.33907	163.332	0.27902	0.33649	163.298	0.27883	0.33394	163.265	0.27864	360
370	0.34694	165.426	0.28172	0.34429	165.394	0.28152	0.34168	165.361	0.28133	0.33911	165.329	0.28114	370
380	0.35216	167.492	0.28419	0.34948	167.460	0.28400	0.34684	167.429	0.28381	0.34423	167.398	0.28362	380
390	0.35734	169.563	0.28664	0.35463	169.533	0.28645	0.35196	169.502	0.28626	0.34933	169.472	0.28607	390
400	0.36250	171.640	0.28907	0.35976	171.611	0.28888	0.35706	171.581	0.28869	0.35440	171.552	0.28851	400
410	0.36763	173.723	0.29148	0.36486	173.695	0.29129	0.36213	173.666	0.29111	0.35943	173.637	0.29092	410
420	0.37274	175.812	0.29387	0.36994	175.784	0.29368	0.36717	175.757	0.29350	0.36445	175.729	0.29331	420
430	0.37782	177.908	0.29624	0.37499	177.881	0.29605	0.37219	177.854	0.29587	0.36943	177.827	0.29568	430

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	286			288			290			292			TEMP. °F
	271.304 (123.19 °F)			273.304 (123.74 °F)			275.304 (124.29 °F)			277.304 (124.83 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.18375)	(112.846)	(0.20556)	(0.18230)	(112.856)	(0.20546)	(0.18088)	(112.865)	(0.20536)	(0.17946)	(112.874)	(0.20526)	
130	0.18986	114.555	0.20848	0.18792	114.434	0.20815	0.18600	114.312	0.20783	0.18410	114.189	0.20750	130
140	0.19830	116.973	0.21254	0.19636	116.864	0.21224	0.19445	116.755	0.21194	0.19256	116.646	0.21163	140
150	0.20625	119.308	0.21640	0.20431	119.209	0.21612	0.20239	119.110	0.21583	0.20049	119.011	0.21555	150
160	0.21381	121.580	0.22010	0.21185	121.489	0.21983	0.20992	121.398	0.21955	0.20801	121.307	0.21928	160
170	0.22104	123.802	0.22366	0.21906	123.718	0.22340	0.21712	123.635	0.22313	0.21520	123.550	0.22287	170
180	0.22800	125.985	0.22710	0.22601	125.908	0.22685	0.22404	125.830	0.22659	0.22211	125.752	0.22634	180
190	0.23473	128.138	0.23044	0.23272	128.065	0.23019	0.23073	127.992	0.22995	0.22878	127.919	0.22970	190
200	0.24126	130.265	0.23369	0.23923	130.197	0.23345	0.23722	130.128	0.23321	0.23524	130.060	0.23297	200
210	0.24762	132.372	0.23686	0.24557	132.308	0.23662	0.24354	132.244	0.23639	0.24154	132.179	0.23616	210
220	0.25384	134.463	0.23996	0.25176	134.402	0.23973	0.24970	134.342	0.23950	0.24768	134.281	0.23928	220
230	0.25992	136.541	0.24299	0.25781	136.484	0.24277	0.25573	136.426	0.24255	0.25368	136.368	0.24233	230
240	0.26588	138.609	0.24597	0.26375	138.555	0.24575	0.26164	138.500	0.24553	0.25957	138.445	0.24532	240
250	0.27174	140.670	0.24889	0.26958	140.618	0.24868	0.26745	140.566	0.24846	0.26535	140.513	0.24825	250
260	0.27750	142.724	0.25177	0.27531	142.675	0.25156	0.27315	142.625	0.25135	0.27103	142.575	0.25114	260
270	0.28317	144.775	0.25460	0.28096	144.727	0.25439	0.27877	144.680	0.25418	0.27662	144.632	0.25398	270
280	0.28877	146.822	0.25738	0.28653	146.777	0.25718	0.28432	146.732	0.25697	0.28214	146.686	0.25677	280
290	0.29430	148.869	0.26013	0.29203	148.825	0.25993	0.28979	148.782	0.25973	0.28758	148.738	0.25953	290
300	0.29976	150.915	0.26284	0.29746	150.873	0.26264	0.29519	150.831	0.26244	0.29296	150.789	0.26224	300
310	0.30516	152.962	0.26552	0.30283	152.921	0.26532	0.30054	152.881	0.26512	0.29827	152.841	0.26493	310
320	0.31051	155.010	0.26816	0.30815	154.971	0.26797	0.30583	154.932	0.26777	0.30354	154.894	0.26758	320
330	0.31581	157.060	0.27078	0.31342	157.023	0.27058	0.31107	156.986	0.27039	0.30875	156.948	0.27020	330
340	0.32106	159.113	0.27336	0.31864	159.077	0.27317	0.31626	159.041	0.27297	0.31391	159.005	0.27278	340
350	0.32627	161.170	0.27592	0.32382	161.135	0.27572	0.32141	161.101	0.27553	0.31904	161.066	0.27534	350
360	0.33144	163.231	0.27845	0.32896	163.197	0.27826	0.32652	163.164	0.27807	0.32412	163.130	0.27788	360
370	0.33657	165.296	0.28095	0.33407	165.264	0.28076	0.33160	165.231	0.28057	0.32916	165.199	0.28039	370
380	0.34167	167.366	0.28343	0.33913	167.335	0.28324	0.33664	167.303	0.28306	0.33418	167.272	0.28287	380
390	0.34673	169.441	0.28589	0.34417	169.411	0.28570	0.34165	169.380	0.28551	0.33915	169.350	0.28533	390
400	0.35177	171.522	0.28832	0.34918	171.492	0.28814	0.34662	171.463	0.28795	0.34410	171.433	0.28777	400
410	0.35678	173.608	0.29073	0.35416	173.580	0.29055	0.35157	173.551	0.29037	0.34902	173.522	0.29018	410
420	0.36176	175.701	0.29313	0.35911	175.673	0.29294	0.35650	175.645	0.29276	0.35392	175.617	0.29258	420
430	0.36672	177.799	0.29550	0.36404	177.772	0.29532	0.36139	177.745	0.29513	0.35879	177.718	0.29495	430

TEMP. °F	294			296			298			300			TEMP. °F
	279.304 (125.37 °F)			281.304 (125.91 °F)			283.304 (126.45 °F)			285.304 (126.98 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.17807)	(112.882)	(0.20516)	(0.17670)	(112.890)	(0.20507)	(0.17534)	(112.897)	(0.20497)	(0.17400)	(112.904)	(0.20487)	
130	0.18222	114.066	0.20718	0.18036	113.941	0.20685	0.17852	113.815	0.20653	0.17670	113.688	0.20620	130
140	0.19068	116.535	0.21133	0.18884	116.424	0.21103	0.18701	116.312	0.21073	0.18520	116.199	0.21042	140
150	0.19862	118.911	0.21526	0.19677	118.810	0.21498	0.19494	118.709	0.21469	0.19313	118.607	0.21441	150
160	0.20613	121.216	0.21901	0.20427	121.124	0.21874	0.20244	121.031	0.21847	0.20062	120.938	0.21820	160
170	0.21330	123.466	0.22261	0.21143	123.381	0.22235	0.20958	123.296	0.22209	0.20776	123.210	0.22184	170
180	0.22019	125.673	0.22609	0.21830	125.594	0.22584	0.21644	125.515	0.22559	0.21460	125.436	0.22534	180
190	0.22684	127.846	0.22946	0.22494	127.772	0.22922	0.22306	127.699	0.22898	0.22120	127.625	0.22874	190
200	0.23329	129.991	0.23274	0.23137	129.922	0.23250	0.22946	129.853	0.23227	0.22759	129.784	0.23204	200
210	0.23956	132.114	0.23593	0.23761	132.049	0.23570	0.23569	131.984	0.23548	0.23379	131.919	0.23525	210
220	0.24568	134.220	0.23905	0.24371	134.158	0.23883	0.24176	134.097	0.23861	0.23984	134.035	0.23839	220
230	0.25166	136.311	0.24211	0.24967	136.253	0.24189	0.24770	136.195	0.24167	0.24575	136.136	0.24145	230
240	0.25752	138.390	0.24510	0.25550	138.335	0.24489	0.25351	138.280	0.24467	0.25154	138.225	0.24446	240
250	0.26327	140.461	0.24804	0.26123	140.409	0.24783	0.25921	140.356	0.24762	0.25722	140.304	0.24741	250
260	0.26893	142.525	0.25093	0.26686	142.475	0.25072	0.26481	142.425	0.25052	0.26280	142.375	0.25031	260
270	0.27449	144.585	0.25377	0.27240	144.537	0.25357	0.27033	144.489	0.25336	0.26829	144.441	0.25316	270
280	0.27998	146.640	0.25657	0.27786	146.595	0.25637	0.27577	146.549	0.25617	0.27370	146.503	0.25597	280
290	0.28540	148.694	0.25933	0.28325	148.651	0.25913	0.28113	148.607	0.25893	0.27904	148.563	0.25873	290
300	0.29075	150.747	0.26205	0.28857	150.705	0.26185	0.28643	150.663	0.26166	0.28431	150.621	0.26146	300
310	0.29604	152.801	0.26473	0.29384	152.760	0.26454	0.29166	152.720	0.26434	0.28952	152.679	0.26415	310
320	0.30128	154.855	0.26738	0.29905	154.816	0.26719	0.29684	154.777	0.26700	0.29467	154.738	0.26681	320
330	0.30646	156.911	0.27000	0.30420	156.873	0.26981	0.30197	156.836	0.26962	0.29978	156.798	0.26944	330
340	0.31160	158.969	0.27259	0.30931	158.933	0.27241	0.30706	158.897	0.27222	0.30483	158.861	0.27203	340
350	0.31669	161.031	0.27516	0.31438	160.996	0.27497	0.31210	160.961	0.27478	0.30985	160.926	0.27460	350
360	0.32175	163.096	0.27769	0.31941	163.063	0.27751	0.31710	163.029	0.27732	0.31482	162.995	0.27714	360
370	0.32676	165.166	0.28020	0.32440	165.133	0.28002	0.32206	165.101	0.27983	0.31975	165.068	0.27965	370
380	0.33175	167.240	0.28269	0.32935	167.209	0.28250	0.32699	167.177	0.28232	0.32465	167.145	0.28214	380
390	0.33670	169.319	0.28515	0.33427	169.289	0.28497	0.33188	169.258	0.28478	0.32952	169.227	0.28460	390
400	0.34162	171.403	0.28759	0.33917	171.374	0.28740	0.33675	171.344	0.28722	0.33436	171.314	0.28705	400
410	0.34651	173.493	0.29000	0.34403	173.465	0.28982	0.34158	173.436	0.28964	0.33917	173.407	0.28947	410
420	0.35138	175.589	0.29240	0.34887	175.561	0.29222	0.34639	175.533	0.29204	0.34395	175.505	0.29186	420
430	0.35622	177.691	0.29477	0.35368	177.664	0.29460	0.35118	177.636	0.29442	0.34871	177.609	0.29424	430

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	305			310			315			320			TEMP. °F
	290.304 (128.30 °F)			295.304 (129.61 °F)			300.304 (130.90 °F)			305.304 (132.18 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.17072)	(112.920)	(0.20462)	(0.16754)	(112.932)	(0.20438)	(0.16445)	(112.942)	(0.20414)	(0.16145)	(112.949)	(0.20389)	
130	0.17224	113.366	0.20538	0.16789	113.036	0.20455	—	—	—	—	—	—	130
140	0.18077	115.913	0.20967	0.17646	115.623	0.20890	0.17227	115.326	0.20814	0.16818	115.024	0.20738	140
150	0.18871	118.350	0.21369	0.18441	118.089	0.21298	0.18023	117.824	0.21227	0.17617	117.554	0.21156	150
160	0.19618	120.704	0.21752	0.19188	120.466	0.21685	0.18769	120.226	0.21618	0.18363	119.982	0.21551	160
170	0.20329	122.994	0.22119	0.19896	122.777	0.22055	0.19476	122.556	0.21991	0.19068	122.333	0.21927	170
180	0.21010	125.236	0.22472	0.20574	125.034	0.22411	0.20151	124.831	0.22350	0.19740	124.625	0.22289	180
190	0.21666	127.439	0.22814	0.21225	127.251	0.22755	0.20798	127.062	0.22696	0.20384	126.871	0.22637	190
200	0.22300	129.610	0.23146	0.21855	129.434	0.23088	0.21424	129.257	0.23031	0.21006	129.079	0.22974	200
210	0.22915	131.756	0.23469	0.22466	131.591	0.23413	0.22030	131.425	0.23357	0.21608	131.258	0.23302	210
220	0.23515	133.881	0.23784	0.23060	133.726	0.23729	0.22620	133.569	0.23675	0.22193	133.412	0.23621	220
230	0.24100	135.990	0.24092	0.23640	135.843	0.24038	0.23195	135.696	0.23985	0.22763	135.547	0.23933	230
240	0.24673	138.086	0.24393	0.24208	137.947	0.24341	0.23757	137.807	0.24289	0.23320	137.666	0.24238	240
250	0.25235	140.172	0.24689	0.24764	140.040	0.24638	0.24308	139.907	0.24587	0.23865	139.773	0.24537	250
260	0.25787	142.250	0.24980	0.25310	142.124	0.24930	0.24848	141.997	0.24880	0.24401	141.870	0.24831	260
270	0.26330	144.321	0.25266	0.25847	144.201	0.25216	0.25380	144.080	0.25167	0.24926	143.959	0.25119	270
280	0.26865	146.389	0.25547	0.26376	146.274	0.25498	0.25903	146.158	0.25450	0.25444	146.042	0.25402	280
290	0.27392	148.453	0.25825	0.26898	148.343	0.25776	0.26418	148.232	0.25729	0.25954	148.121	0.25682	290
300	0.27913	150.516	0.26098	0.27412	150.410	0.26050	0.26927	150.304	0.26003	0.26457	150.198	0.25957	300
310	0.28428	152.578	0.26368	0.27921	152.476	0.26320	0.27430	152.375	0.26274	0.26954	152.272	0.26228	310
320	0.28937	154.641	0.26634	0.28423	154.543	0.26587	0.27926	154.445	0.26541	0.27445	154.347	0.26496	320
330	0.29441	156.705	0.26897	0.28921	156.610	0.26851	0.28418	156.516	0.26805	0.27930	156.422	0.26760	330
340	0.29940	158.770	0.27157	0.29414	158.680	0.27111	0.28905	158.589	0.27066	0.28411	158.498	0.27021	340
350	0.30435	160.839	0.27414	0.29902	160.751	0.27369	0.29387	160.664	0.27324	0.28888	160.576	0.27280	350
360	0.30925	162.911	0.27668	0.30387	162.826	0.27623	0.29865	162.741	0.27579	0.29360	162.656	0.27535	360
370	0.31412	164.986	0.27920	0.30867	164.905	0.27875	0.30340	164.823	0.27831	0.29828	164.740	0.27788	370
380	0.31896	167.066	0.28169	0.31344	166.987	0.28125	0.30810	166.908	0.28081	0.30293	166.828	0.28038	380
390	0.32376	169.151	0.28416	0.31818	169.074	0.28372	0.31278	168.997	0.28328	0.30755	168.920	0.28286	390
400	0.32853	171.240	0.28660	0.32289	171.166	0.28617	0.31742	171.091	0.28573	0.31213	171.016	0.28531	400
410	0.33327	173.335	0.28903	0.32757	173.262	0.28859	0.32204	173.190	0.28816	0.31669	173.118	0.28774	410
420	0.33799	175.435	0.29143	0.33222	175.365	0.29099	0.32663	175.295	0.29057	0.32122	175.224	0.29015	420
430	0.34268	177.541	0.29381	0.33684	177.473	0.29338	0.33119	177.405	0.29295	0.32572	177.336	0.29253	430
440	—	—	—	—	—	—	0.33574	179.520	0.29532	0.33020	179.454	0.29490	440

TEMP. °F	325			330			335			340			TEMP. °F
	310.304 (133.44 °F)			315.304 (134.69 °F)			320.304 (135.92 °F)			325.304 (137.14 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.15854)	(112.954)	(0.20365)	(0.15571)	(112.956)	(0.20341)	(0.15296)	(112.954)	(0.20317)	(0.15029)	(112.951)	(0.20293)	
140	0.16419	114.716	0.20661	0.16030	114.401	0.20583	0.15649	114.080	0.20505	0.15277	113.751	0.20426	140
150	0.17221	117.281	0.21085	0.16835	117.002	0.21013	0.16459	116.719	0.20942	0.16092	116.431	0.20870	150
160	0.17967	119.735	0.21484	0.17582	119.485	0.21417	0.17208	119.231	0.21350	0.16843	118.974	0.21283	160
170	0.18671	122.108	0.21864	0.18285	121.880	0.21801	0.17910	121.649	0.21737	0.17545	121.416	0.21674	170
180	0.19341	124.418	0.22228	0.18953	124.208	0.22167	0.18576	123.997	0.22107	0.18209	123.783	0.22047	180
190	0.19982	126.679	0.22579	0.19592	126.484	0.22520	0.19212	126.289	0.22463	0.18843	126.091	0.22405	190
200	0.20600	128.900	0.22918	0.20206	128.719	0.22862	0.19823	128.537	0.22806	0.19451	128.353	0.22751	200
210	0.21198	131.090	0.23247	0.20800	130.920	0.23193	0.20414	130.750	0.23139	0.20038	130.578	0.23086	210
220	0.21779	133.254	0.23568	0.21376	133.095	0.23515	0.20986	132.935	0.23463	0.20607	132.774	0.23411	220
230	0.22344	135.398	0.23881	0.21937	135.248	0.23830	0.21543	135.097	0.23779	0.21159	134.945	0.23728	230
240	0.22896	137.525	0.24187	0.22485	137.383	0.24137	0.22086	137.240	0.24087	0.21698	137.097	0.24038	240
250	0.23437	139.639	0.24487	0.23020	139.504	0.24438	0.22617	139.369	0.24389	0.22224	139.233	0.24341	250
260	0.23967	141.742	0.24782	0.23545	141.614	0.24733	0.23137	141.485	0.24685	0.22740	141.356	0.24638	260
270	0.24487	143.837	0.25071	0.24061	143.715	0.25023	0.23647	143.592	0.24976	0.23246	143.469	0.24930	270
280	0.24999	145.926	0.25355	0.24568	145.809	0.25308	0.24149	145.692	0.25262	0.23743	145.575	0.25216	280
290	0.25504	148.010	0.25635	0.25067	147.898	0.25589	0.24643	147.786	0.25543	0.24232	147.674	0.25498	290
300	0.26001	150.091	0.25911	0.25559	149.984	0.25865	0.25130	149.877	0.25820	0.24714	149.769	0.25776	300
310	0.26492	152.170	0.26183	0.26045	152.067	0.26138	0.25611	151.964	0.26093	0.25190	151.861	0.26049	310
320	0.26978	154.248	0.26451	0.26525	154.150	0.26406	0.26086	154.051	0.26363	0.25659	153.951	0.26319	320
330	0.27458	156.327	0.26716	0.27000	156.232	0.26672	0.26555	156.137	0.26628	0.26123	156.041	0.26585	330
340	0.27933	158.406	0.26977	0.27469	158.315	0.26934	0.27019	158.223	0.26891	0.26582	158.131	0.26848	340
350	0.28404	160.488	0.27236	0.27934	160.399	0.27193	0.27479	160.311	0.27150	0.27037	160.222	0.27108	350
360	0.28870	162.571	0.27492	0.28395	162.486	0.27449	0.27935	162.401	0.27407	0.27487	162.315	0.27365	360
370	0.29333	164.658	0.27745	0.28852	164.576	0.27703	0.28386	164.493	0.27661	0.27934	164.410	0.27619	370
380	0.29792	166.748	0.27995	0.29306	166.669	0.27953	0.28834	166.589	0.27912	0.28377	166.509	0.27871	380
390	0.30248	168.843	0.28243	0.29756	168.766	0.28202	0.29279	168.688	0.28160	0.28816	168.611	0.28120	390
400	0.30700	170.942	0.28489	0.30203	170.867	0.28447	0.29720	170.792	0.28406	0.29252	170.717	0.28366	400
410	0.31150	173.045	0.28732	0.30647	172.973	0.28691	0.30159	172.900	0.28650	0.29685	172.827	0.28610	410
420	0.31597	175.154	0.28973	0.31088	175.083	0.28932	0.30595	175.013	0.28892	0.30116	174.942	0.28852	420
430	0.32042	177.268	0.29212	0.31527	177.199	0.29171	0.31028	177.131	0.29131	0.30544	177.062	0.29091	430
440	0.32484	179.387	0.29449	0.31964	179.321	0.29409	0.31459	179.254	0.29369	0.30970	179.187	0.29329	440

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	345			350			355			360			TEMP. °F
	330.304 (138.35 °F)			335.304 (139.54 °F)			340.304 (140.72 °F)			345.304 (141.89 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.14768)	(112.944)	(0.20268)	(0.14514)	(112.935)	(0.20244)	(0.14267)	(112.924)	(0.20220)	(0.14026)	(112.909)	(0.20196)	
140	0.14912	113.414	0.20347	0.14555	113.068	0.20266	—	—	—	—	—	—	140
150	0.15733	116.138	0.20797	0.15383	115.838	0.20725	0.15040	115.533	0.20651	0.14705	115.221	0.20578	150
160	0.16487	118.712	0.21216	0.16139	118.446	0.21149	0.15800	118.177	0.21082	0.15469	117.902	0.21014	160
170	0.17189	121.179	0.21611	0.16842	120.940	0.21548	0.16504	120.697	0.21485	0.16174	120.451	0.21422	170
180	0.17852	123.566	0.21987	0.17505	123.348	0.21927	0.17166	123.127	0.21868	0.16836	122.903	0.21808	180
190	0.18484	125.892	0.22348	0.18135	125.690	0.22291	0.17794	125.487	0.22234	0.17463	125.282	0.22177	190
200	0.19090	128.168	0.22696	0.18738	127.981	0.22641	0.18395	127.793	0.22586	0.18062	127.603	0.22532	200
210	0.19673	130.406	0.23032	0.19318	130.231	0.22979	0.18973	130.056	0.22927	0.18636	129.879	0.22874	210
220	0.20238	132.612	0.23359	0.19880	132.449	0.23308	0.19531	132.284	0.23257	0.19192	132.119	0.23206	220
230	0.20787	134.792	0.23678	0.20425	134.639	0.23628	0.20072	134.485	0.23578	0.19729	134.329	0.23529	230
240	0.21321	136.953	0.23989	0.20955	136.808	0.23940	0.20599	136.662	0.23892	0.20253	136.516	0.23844	240
250	0.21843	139.096	0.24293	0.21473	138.959	0.24245	0.21113	138.821	0.24198	0.20763	138.682	0.24151	250
260	0.22354	141.226	0.24591	0.21980	141.096	0.24544	0.21616	140.965	0.24498	0.21261	140.834	0.24452	260
270	0.22856	143.346	0.24883	0.22477	143.222	0.24838	0.22108	143.097	0.24792	0.21750	142.972	0.24747	270
280	0.23348	145.457	0.25171	0.22964	145.338	0.25126	0.22592	145.220	0.25081	0.22229	145.100	0.25037	280
290	0.23832	147.561	0.25453	0.23444	147.448	0.25409	0.23067	147.335	0.25365	0.22700	147.221	0.25322	290
300	0.24310	149.661	0.25732	0.23917	149.553	0.25688	0.23535	149.444	0.25645	0.23164	149.335	0.25602	300
310	0.24780	151.758	0.26006	0.24383	151.654	0.25963	0.23996	151.550	0.25920	0.23620	151.445	0.25878	310
320	0.25245	153.852	0.26276	0.24843	153.752	0.26234	0.24451	153.652	0.26192	0.24071	153.552	0.26150	320
330	0.25704	155.945	0.26543	0.25297	155.850	0.26501	0.24901	155.753	0.26459	0.24516	155.657	0.26418	330
340	0.26158	158.039	0.26806	0.25746	157.947	0.26765	0.25346	157.854	0.26724	0.24956	157.761	0.26683	340
350	0.26608	160.133	0.27067	0.26191	160.044	0.27026	0.25786	159.955	0.26985	0.25392	159.866	0.26945	350
360	0.27053	162.229	0.27324	0.26631	162.143	0.27283	0.26221	162.057	0.27243	0.25823	161.971	0.27203	360
370	0.27494	164.328	0.27578	0.27068	164.245	0.27538	0.26653	164.161	0.27498	0.26249	164.078	0.27458	370
380	0.27932	166.429	0.27830	0.27500	166.348	0.27790	0.27081	166.268	0.27750	0.26673	166.187	0.27711	380
390	0.28366	168.533	0.28079	0.27930	168.455	0.28039	0.27505	168.378	0.28000	0.27092	168.300	0.27961	390
400	0.28797	170.641	0.28326	0.28356	170.566	0.28286	0.27926	170.491	0.28247	0.27509	170.415	0.28209	400
410	0.29225	172.754	0.28570	0.28779	172.681	0.28531	0.28345	172.608	0.28492	0.27922	172.535	0.28454	410
420	0.29651	174.871	0.28812	0.29199	174.800	0.28773	0.28760	174.729	0.28735	0.28333	174.658	0.28697	420
430	0.30074	176.993	0.29052	0.29617	176.925	0.29013	0.29173	176.856	0.28975	0.28741	176.787	0.28937	430
440	0.30494	179.121	0.29290	0.30032	179.054	0.29251	0.29583	178.987	0.29213	0.29147	178.920	0.29176	440
450	—	—	—	—	—	—	0.29992	181.123	0.29449	0.29550	181.058	0.29412	450

TEMP. °F	365			370			375			380			TEMP. °F
	350.304 (143.04 °F)			355.304 (144.19 °F)			360.304 (145.32 °F)			365.304 (146.44 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.13792)	(112.892)	(0.20172)	(0.13563)	(112.873)	(0.20148)	(0.13339)	(112.851)	(0.20123)	(0.13121)	(112.826)	(0.20099)	
150	0.14376	114.903	0.20503	0.14053	114.577	0.20428	0.13736	114.243	0.20353	0.13425	113.901	0.20276	150
160	0.15145	117.623	0.20946	0.14828	117.339	0.20878	0.14517	117.050	0.20809	0.14213	116.756	0.20740	160
170	0.15852	120.202	0.21359	0.15538	119.949	0.21296	0.15230	119.692	0.21232	0.14929	119.432	0.21169	170
180	0.16514	122.677	0.21749	0.16200	122.448	0.21689	0.15893	122.217	0.21630	0.15593	121.982	0.21571	180
190	0.17140	125.075	0.22121	0.16825	124.865	0.22064	0.16517	124.654	0.22008	0.16217	124.440	0.21952	190
200	0.17736	127.412	0.22478	0.17420	127.219	0.22424	0.17111	127.024	0.22370	0.16809	126.827	0.22317	200
210	0.18309	129.701	0.22822	0.17990	129.522	0.22770	0.17679	129.341	0.22719	0.17375	129.159	0.22667	210
220	0.18861	131.953	0.23156	0.18539	131.785	0.23106	0.18226	131.616	0.23056	0.17920	131.447	0.23006	220
230	0.19396	134.173	0.23480	0.19071	134.016	0.23432	0.18754	133.858	0.23383	0.18446	133.699	0.23335	230
240	0.19915	136.368	0.23796	0.19587	136.220	0.23749	0.19267	136.071	0.23702	0.18956	135.922	0.23655	240
250	0.20422	138.543	0.24105	0.20090	138.403	0.24059	0.19767	138.263	0.24013	0.19452	138.121	0.23967	250
260	0.20916	140.702	0.24407	0.20581	140.569	0.24362	0.20254	140.436	0.24317	0.19936	140.302	0.24273	260
270	0.21401	142.846	0.24703	0.21061	142.720	0.24659	0.20731	142.594	0.24615	0.20409	142.467	0.24571	270
280	0.21876	144.981	0.24993	0.21533	144.861	0.24950	0.21198	144.740	0.24907	0.20873	144.619	0.24864	280
290	0.22343	147.107	0.25279	0.21995	146.992	0.25236	0.21657	146.877	0.25194	0.21328	146.762	0.25152	290
300	0.22802	149.226	0.25560	0.22451	149.116	0.25518	0.22108	149.006	0.25476	0.21775	148.896	0.25435	300
310	0.23255	151.340	0.25836	0.22899	151.235	0.25795	0.22553	151.130	0.25754	0.22216	151.024	0.25713	310
320	0.23701	153.452	0.26109	0.23341	153.351	0.26068	0.22991	153.250	0.26027	0.22650	153.148	0.25987	320
330	0.24142	155.560	0.26377	0.23778	155.464	0.26337	0.23423	155.367	0.26297	0.23078	155.269	0.26258	330
340	0.24578	157.668	0.26643	0.24209	157.575	0.26603	0.23850	157.482	0.26563	0.23501	157.388	0.26524	340
350	0.25008	159.776	0.26905	0.24635	159.686	0.26865	0.24272	159.596	0.26826	0.23919	159.506	0.26787	350
360	0.25435	161.885	0.27163	0.25058	161.798	0.27124	0.24690	161.711	0.27086	0.24333	161.624	0.27047	360
370	0.25857	163.995	0.27419	0.25476	163.911	0.27381	0.25104	163.827	0.27342	0.24742	163.743	0.27304	370
380	0.26276	166.107	0.27672	0.25890	166.026	0.27634	0.25514	165.945	0.27596	0.25148	165.864	0.27558	380
390	0.26691	168.222	0.27923	0.26300	168.143	0.27885	0.25920	168.065	0.27847	0.25550	167.987	0.27810	390
400	0.27103	170.340	0.28171	0.26708	170.264	0.28133	0.26324	170.188	0.28095	0.25949	170.112	0.28058	400
410	0.27512	172.461	0.28416	0.27112	172.388	0.28378	0.26724	172.314	0.28341	0.26345	172.241	0.28305	410
420	0.27918	174.587	0.28659	0.27514	174.516	0.28622	0.27121	174.445	0.28585	0.26738	174.373	0.28548	420
430	0.28322	176.718	0.28900	0.27913	176.648	0.28863	0.27516	176.579	0.28826	0.27129	176.510	0.28790	430
440	0.28723	178.853	0.29138	0.28310	178.785	0.29102	0.27908	178.718	0.29065	0.27517	178.651	0.29029	440
450	0.29121	180.993	0.29375	0.28704	180.927	0.29338	0.28298	180.862	0.29302	0.27902	180.797	0.29266	450

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	385			390			395			400			TEMP. °F
	370.304 (147.55 °F)			375.304 (148.65 °F)			380.304 (149.74 °F)			385.304 (150.82 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.12908)	(112.798)	(0.20075)	(0.12700)	(112.768)	(0.20050)	(0.12496)	(112.736)	(0.20026)	(0.12297)	(112.700)	(0.20001)	
150	0.13118	113.550	0.20198	0.12817	113.189	0.20119	0.12519	112.818	0.20039	—	—	—	150
160	0.13915	116.455	0.20671	0.13622	116.149	0.20601	0.13335	115.836	0.20530	0.13053	115.516	0.20459	160
170	0.14635	119.167	0.21105	0.14347	118.898	0.21041	0.14065	118.625	0.20977	0.13788	118.347	0.20912	170
180	0.15300	121.745	0.21511	0.15014	121.504	0.21452	0.14734	121.261	0.21392	0.14460	121.014	0.21332	180
190	0.15924	124.224	0.21896	0.15638	124.006	0.21840	0.15358	123.785	0.21784	0.15085	123.562	0.21728	190
200	0.16515	126.629	0.22263	0.16228	126.429	0.22210	0.15948	126.227	0.22157	0.15674	126.023	0.22104	200
210	0.17080	128.976	0.22616	0.16791	128.790	0.22565	0.16509	128.604	0.22514	0.16234	128.416	0.22464	210
220	0.17622	131.276	0.22957	0.17331	131.103	0.22908	0.17047	130.930	0.22859	0.16770	130.755	0.22810	220
230	0.18145	133.539	0.23288	0.17851	133.377	0.23240	0.17565	133.215	0.23193	0.17286	133.052	0.23146	230
240	0.18652	135.771	0.23609	0.18356	135.620	0.23563	0.18067	135.468	0.23517	0.17785	135.315	0.23471	240
250	0.19145	137.979	0.23922	0.18845	137.837	0.23877	0.18554	137.693	0.23833	0.18269	137.549	0.23789	250
260	0.19625	140.167	0.24228	0.19323	140.032	0.24185	0.19028	139.897	0.24141	0.18740	139.761	0.24098	260
270	0.20095	142.339	0.24528	0.19789	142.211	0.24485	0.19491	142.082	0.24443	0.19200	141.953	0.24401	270
280	0.20555	144.498	0.24822	0.20246	144.376	0.24780	0.19944	144.254	0.24738	0.19650	144.131	0.24697	280
290	0.21007	146.646	0.25110	0.20694	146.530	0.25069	0.20389	146.413	0.25028	0.20091	146.296	0.24988	290
300	0.21450	148.785	0.25394	0.21134	148.674	0.25353	0.20825	148.563	0.25313	0.20524	148.451	0.25273	300
310	0.21887	150.919	0.25673	0.21567	150.812	0.25633	0.21255	150.706	0.25593	0.20950	150.599	0.25554	310
320	0.22317	153.047	0.25948	0.21993	152.945	0.25908	0.21677	152.843	0.25869	0.21369	152.741	0.25831	320
330	0.22742	155.172	0.26218	0.22414	155.074	0.26180	0.22094	154.976	0.26141	0.21783	154.878	0.26103	330
340	0.23161	157.294	0.26486	0.22829	157.200	0.26447	0.22506	157.106	0.26409	0.22190	157.012	0.26372	340
350	0.23575	159.416	0.26749	0.23239	159.325	0.26711	0.22912	159.235	0.26674	0.22593	159.144	0.26636	350
360	0.23984	161.537	0.27010	0.23645	161.450	0.26972	0.23314	161.363	0.26935	0.22992	161.275	0.26898	360
370	0.24390	163.659	0.27267	0.24047	163.575	0.27230	0.23712	163.491	0.27193	0.23386	163.406	0.27157	370
380	0.24792	165.783	0.27521	0.24444	165.701	0.27484	0.24106	165.620	0.27448	0.23776	165.538	0.27412	380
390	0.25190	167.908	0.27773	0.24839	167.829	0.27736	0.24496	167.751	0.27700	0.24162	167.672	0.27665	390
400	0.25585	170.036	0.28022	0.25229	169.960	0.27986	0.24883	169.884	0.27950	0.24546	169.807	0.27914	400
410	0.25976	172.167	0.28268	0.25617	172.093	0.28232	0.25267	172.019	0.28197	0.24926	171.945	0.28162	410
420	0.26365	174.302	0.28512	0.26002	174.230	0.28477	0.25648	174.159	0.28441	0.25303	174.087	0.28407	420
430	0.26752	176.441	0.28754	0.26384	176.371	0.28719	0.26026	176.302	0.28684	0.25677	176.232	0.28649	430
440	0.27135	178.584	0.28994	0.26764	178.516	0.28958	0.26402	178.449	0.28924	0.26049	178.381	0.28889	440
450	0.27517	180.731	0.29231	0.27141	180.666	0.29196	0.26776	180.600	0.29161	0.26419	180.534	0.29127	450
460	—	—	—	—	—	—	—	—	—	0.26786	182.692	0.29363	460

TEMP. °F	405			410			415			420			TEMP. °F
	390.304 (151.89 °F)			395.304 (152.95 °F)			400.304 (153.99 °F)			405.304 (155.03 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.12103)	(112.662)	(0.19976)	(0.11912)	(112.621)	(0.19951)	(0.11726)	(112.577)	(0.19927)	(0.11544)	(112.531)	(0.19901)	
160	0.12775	115.188	0.20387	0.12502	114.853	0.20314	0.12232	114.509	0.20240	0.11966	114.156	0.20165	160
170	0.13516	118.065	0.20847	0.13250	117.777	0.20782	0.12988	117.483	0.20716	0.12731	117.184	0.20650	170
180	0.14191	120.763	0.21272	0.13928	120.509	0.21212	0.13670	120.251	0.21152	0.13417	119.989	0.21092	180
190	0.14817	123.336	0.21672	0.14555	123.108	0.21616	0.14299	122.877	0.21559	0.14048	122.643	0.21503	190
200	0.15406	125.817	0.22050	0.15144	125.609	0.21998	0.14888	125.399	0.21945	0.14637	125.186	0.21892	200
210	0.15965	128.226	0.22413	0.15702	128.035	0.22363	0.15445	127.842	0.22312	0.15193	127.647	0.22262	210
220	0.16499	130.579	0.22762	0.16235	130.402	0.22713	0.15976	130.224	0.22665	0.15723	130.044	0.22617	220
230	0.17013	132.888	0.23099	0.16746	132.723	0.23052	0.16486	132.557	0.23006	0.16232	132.389	0.22960	230
240	0.17509	135.161	0.23426	0.17241	135.006	0.23381	0.16978	134.850	0.23336	0.16721	134.694	0.23292	240
250	0.17991	137.404	0.23745	0.17720	137.259	0.23701	0.17454	137.112	0.23657	0.17196	136.965	0.23614	250
260	0.18459	139.624	0.24055	0.18185	139.486	0.24012	0.17918	139.348	0.23970	0.17656	139.209	0.23928	260
270	0.18916	141.824	0.24359	0.18639	141.693	0.24317	0.18369	141.563	0.24276	0.18105	141.431	0.24234	270
280	0.19363	144.008	0.24656	0.19083	143.884	0.24615	0.18810	143.760	0.24575	0.18543	143.635	0.24534	280
290	0.19801	146.179	0.24947	0.19518	146.061	0.24907	0.19241	145.943	0.24868	0.18971	145.824	0.24828	290
300	0.20231	148.339	0.25234	0.19944	148.227	0.25195	0.19665	148.114	0.25156	0.19392	148.001	0.25117	300
310	0.20653	150.492	0.25515	0.20363	150.384	0.25477	0.20081	150.277	0.25438	0.19804	150.169	0.25400	310
320	0.21069	152.638	0.25792	0.20776	152.535	0.25754	0.20490	152.432	0.25717	0.20210	152.328	0.25679	320
330	0.21479	154.779	0.26065	0.21182	154.680	0.26028	0.20893	154.581	0.25990	0.20610	154.482	0.25954	330
340	0.21883	156.917	0.26334	0.21583	156.822	0.26297	0.21290	156.727	0.26260	0.21004	156.632	0.26224	340
350	0.22282	159.053	0.26600	0.21979	158.961	0.26563	0.21683	158.870	0.26527	0.21394	158.778	0.26491	350
360	0.22677	161.187	0.26862	0.22370	161.099	0.26825	0.22070	161.011	0.26790	0.21778	160.923	0.26754	360
370	0.23067	163.321	0.27120	0.22757	163.237	0.27085	0.22454	163.152	0.27049	0.22158	163.067	0.27014	370
380	0.23454	165.456	0.27376	0.23140	165.374	0.27341	0.22833	165.292	0.27306	0.22534	165.210	0.27271	380
390	0.23837	167.593	0.27629	0.23519	167.513	0.27594	0.23209	167.434	0.27559	0.22907	167.355	0.27525	390
400	0.24216	169.731	0.27879	0.23895	169.654	0.27844	0.23582	169.577	0.27810	0.23276	169.501	0.27776	400
410	0.24593	171.871	0.28127	0.24268	171.797	0.28092	0.23951	171.723	0.28058	0.23641	171.649	0.28024	410
420	0.24966	174.015	0.28372	0.24638	173.943	0.28338	0.24317	173.871	0.28304	0.24004	173.799	0.28270	420
430	0.25337	176.162	0.28615	0.25005	176.093	0.28581	0.24681	176.023	0.28547	0.24364	175.953	0.28514	430
440	0.25705	178.313	0.28855	0.25369	178.246	0.28821	0.25042	178.178	0.28788	0.24722	178.110	0.28755	440
450	0.26071	180.469	0.29093	0.25732	180.403	0.29060	0.25401	180.337	0.29026	0.25077	180.271	0.28994	450
460	0.26435	182.628	0.29329	0.26092	182.564	0.29296	0.25757	182.500	0.29263	0.25430	182.436	0.29230	460

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	425			430			435			440			TEMP. °F
	410.304			415.304			420.304			425.304			
	(156.06 °F)			(157.08 °F)			(158.10 °F)			(159.10 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.11365)	(112.482)	(0.19876)	(0.11190)	(112.430)	(0.19851)	(0.11019)	(112.375)	(0.19825)	(0.10850)	(112.318)	(0.19800)	
160	0.11703	113.794	0.20089	0.11443	113.420	0.20011	0.11186	113.034	0.19932	0.10931	112.636	0.19851	160
170	0.12478	116.879	0.20583	0.12229	116.568	0.20515	0.11984	116.249	0.20447	0.11742	115.924	0.20377	170
180	0.13169	119.723	0.21031	0.12925	119.453	0.20970	0.12686	119.179	0.20908	0.12451	118.899	0.20846	180
190	0.13802	122.406	0.21447	0.13561	122.166	0.21390	0.13324	121.922	0.21334	0.13092	121.676	0.21277	190
200	0.14391	124.972	0.21839	0.14151	124.755	0.21786	0.13915	124.536	0.21733	0.13684	124.314	0.21680	200
210	0.14947	127.451	0.22212	0.14707	127.253	0.22162	0.14471	127.053	0.22112	0.14240	126.851	0.22062	210
220	0.15476	129.862	0.22569	0.15235	129.680	0.22521	0.14998	129.496	0.22474	0.14766	129.310	0.22426	220
230	0.15983	132.221	0.22914	0.15740	132.051	0.22868	0.15502	131.880	0.22822	0.15269	131.708	0.22777	230
240	0.16471	134.536	0.23247	0.16226	134.378	0.23203	0.15986	134.218	0.23159	0.15751	134.058	0.23115	240
250	0.16943	136.817	0.23571	0.16695	136.668	0.23528	0.16453	136.519	0.23485	0.16217	136.369	0.23443	250
260	0.17401	139.070	0.23886	0.17151	138.930	0.23844	0.16907	138.789	0.23803	0.16668	138.647	0.23762	260
270	0.17846	141.299	0.24194	0.17594	141.167	0.24153	0.17348	141.034	0.24113	0.17107	140.900	0.24072	270
280	0.18282	143.510	0.24495	0.18027	143.384	0.24455	0.17778	143.258	0.24415	0.17543	143.132	0.24376	280
290	0.18708	145.705	0.24789	0.18450	145.586	0.24750	0.18198	145.466	0.24712	0.17952	145.346	0.24673	290
300	0.19125	147.888	0.25078	0.18864	147.774	0.25040	0.18610	147.660	0.25003	0.18361	147.545	0.24965	300
310	0.19535	150.060	0.25363	0.19271	149.951	0.25325	0.19014	149.842	0.25288	0.18762	149.733	0.25251	310
320	0.19938	152.225	0.25642	0.19671	152.121	0.25605	0.19411	152.016	0.25569	0.19156	151.912	0.25532	320
330	0.20334	154.383	0.25917	0.20065	154.283	0.25881	0.19801	154.183	0.25845	0.19544	154.083	0.25809	330
340	0.20725	156.536	0.26188	0.20453	156.441	0.26152	0.20186	156.345	0.26117	0.19926	156.248	0.26081	340
350	0.21111	158.686	0.26455	0.20835	158.594	0.26420	0.20566	158.502	0.26385	0.20303	158.410	0.26350	350
360	0.21492	160.834	0.26719	0.21213	160.746	0.26684	0.20941	160.657	0.26649	0.20674	160.568	0.26615	360
370	0.21869	162.981	0.26979	0.21587	162.896	0.26945	0.21311	162.810	0.26910	0.21042	162.725	0.26877	370
380	0.22242	165.128	0.27236	0.21957	165.045	0.27202	0.21678	164.963	0.27168	0.21405	164.880	0.27135	380
390	0.22611	167.275	0.27491	0.22323	167.196	0.27457	0.22041	167.116	0.27243	0.21765	167.036	0.27390	390
400	0.22977	169.424	0.27742	0.22685	169.347	0.27708	0.22400	169.269	0.27675	0.22121	169.192	0.27642	400
410	0.23339	171.574	0.27991	0.23044	171.499	0.27957	0.22756	171.425	0.27924	0.22474	171.350	0.27892	410
420	0.23699	173.727	0.28237	0.23400	173.655	0.28204	0.23109	173.582	0.28171	0.22824	173.510	0.28139	420
430	0.24056	175.883	0.28480	0.23754	175.813	0.28448	0.23459	175.743	0.28415	0.23171	175.672	0.28383	430
440	0.24410	178.042	0.28722	0.24105	177.974	0.28689	0.23807	177.906	0.28657	0.23516	177.838	0.28625	440
450	0.24762	180.205	0.28961	0.24453	180.139	0.28929	0.24152	180.073	0.28897	0.23858	180.007	0.28865	450
460	0.25111	182.372	0.29198	0.24800	182.308	0.29166	0.24495	182.244	0.29134	0.24198	182.179	0.29102	460

TEMP. °F	445			450			455			460			TEMP. °F
	430.304			435.304			440.304			445.304			
	(160.09 °F)			(161.08 °F)			(162.06 °F)			(163.02 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.10685)	(112.257)	(0.19774)	(0.10524)	(112.193)	(0.19748)	(0.10365)	(112.127)	(0.19721)	(0.10209)	(112.057)	(0.19695)	
170	0.11504	115.590	0.20307	0.11268	115.249	0.20236	0.11035	114.898	0.20164	0.10804	114.537	0.20091	170
180	0.12219	118.615	0.20784	0.11992	118.325	0.20721	0.11768	118.030	0.20658	0.11547	117.729	0.20594	180
190	0.12864	121.426	0.21220	0.12640	121.172	0.21163	0.12420	120.915	0.21106	0.12204	120.654	0.21048	190
200	0.13458	124.090	0.21627	0.13236	123.863	0.21574	0.13018	123.634	0.21521	0.12804	123.402	0.21468	200
210	0.14014	126.647	0.22012	0.13792	126.441	0.21962	0.13575	126.234	0.21912	0.13362	126.024	0.21862	210
220	0.14540	129.123	0.22379	0.14317	128.934	0.22331	0.14100	128.744	0.22284	0.13886	128.552	0.22237	220
230	0.15041	131.535	0.22731	0.14818	131.360	0.22686	0.14599	131.185	0.22641	0.14385	131.008	0.22595	230
240	0.15522	133.897	0.23071	0.15297	133.734	0.23027	0.15077	133.571	0.22984	0.14862	133.406	0.22941	240
250	0.15986	136.217	0.23400	0.15759	136.066	0.23358	0.15537	135.913	0.23316	0.15320	135.759	0.23275	250
260	0.16435	138.505	0.23721	0.16206	138.362	0.23680	0.15982	138.219	0.23639	0.15764	138.075	0.23599	260
270	0.16871	140.766	0.24033	0.16640	140.631	0.23993	0.16414	140.496	0.23953	0.16193	140.360	0.23914	270
280	0.17296	143.005	0.24337	0.17063	142.877	0.24298	0.16835	142.749	0.24260	0.16612	142.620	0.24222	280
290	0.17711	145.225	0.24635	0.17475	145.104	0.24597	0.17245	144.982	0.24560	0.17020	144.860	0.24522	290
300	0.18117	147.430	0.24928	0.17879	147.315	0.24890	0.17646	147.199	0.24854	0.17418	147.083	0.24817	300
310	0.18516	149.623	0.25214	0.18275	149.513	0.25178	0.18040	149.403	0.25142	0.17809	149.292	0.25106	310
320	0.18907	151.807	0.25496	0.18664	151.702	0.25460	0.18426	151.596	0.25425	0.18193	151.490	0.25390	320
330	0.19292	153.982	0.25774	0.19046	153.882	0.25738	0.18805	153.781	0.25703	0.18570	153.680	0.25669	330
340	0.19671	156.152	0.26047	0.19422	156.055	0.26012	0.19179	155.959	0.25977	0.18941	155.862	0.25943	340
350	0.20045	158.317	0.26316	0.19793	158.224	0.26281	0.19547	158.131	0.26247	0.19306	158.038	0.26214	350
360	0.20414	160.479	0.26581	0.20159	160.390	0.26547	0.19910	160.300	0.26514	0.19667	160.210	0.26480	360
370	0.20779	162.639	0.26843	0.20521	162.553	0.26809	0.20269	162.466	0.26776	0.20023	162.380	0.26743	370
380	0.21139	164.797	0.27101	0.20879	164.714	0.27068	0.20624	164.631	0.27036	0.20375	164.548	0.27003	380
390	0.21496	166.956	0.27357	0.21232	166.876	0.27324	0.20975	166.795	0.27292	0.20723	166.715	0.27260	390
400	0.21849	169.115	0.27610	0.21582	169.037	0.27577	0.21322	168.960	0.27545	0.21067	168.882	0.27513	400
410	0.22199	171.275	0.27859	0.21929	171.200	0.27827	0.21666	171.125	0.27796	0.21408	171.050	0.27764	410
420	0.22546	173.437	0.28107	0.22273	173.365	0.28075	0.22007	173.292	0.28043	0.21746	173.219	0.28012	420
430	0.22890	175.602	0.28351	0.22614	175.532	0.28320	0.22345	175.461	0.28288	0.22082	175.391	0.28257	430
440	0.23231	177.769	0.28594	0.22953	177.701	0.28562	0.22681	177.633	0.28531	0.22414	177.564	0.28500	440
450	0.23570	179.940	0.28834	0.23289	179.874	0.28802	0.23014	179.808	0.28772	0.22745	179.741	0.28741	450
460	0.23907	182.115	0.29071	0.23623	182.050	0.29040	0.23344	181.986	0.29010	0.23072	181.921	0.28979	460
470	0.24241	184.293	0.29307	0.23954	184.231	0.29276	0.23673	184.168	0.29246	0.23398	184.105	0.29216	470

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	465			470			475			480			TEMP. °F
	450.304 (163.99 °F)			455.304 (164.94 °F)			460.304 (165.88 °F)			465.304 (166.82 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.10056)	(111.985)	(0.19668)	(0.099051)	(111.909)	(0.19641)	(0.097572)	(111.830)	(0.19614)	(0.096118)	(111.748)	(0.19587)	
170	0.10576	114.166	0.20016	0.10349	113.784	0.19940	0.10124	113.389	0.19863	0.098998	112.980	0.19783	170
180	0.11329	117.422	0.20530	0.11114	117.109	0.20464	0.10902	116.789	0.20398	0.10692	116.461	0.20331	180
190	0.11992	120.389	0.20990	0.11783	120.119	0.20931	0.11577	119.846	0.20873	0.11374	119.567	0.20813	190
200	0.12594	123.167	0.21414	0.12388	122.929	0.21360	0.12185	122.688	0.21307	0.11986	122.443	0.21253	200
210	0.13153	125.812	0.21812	0.12947	125.598	0.21762	0.12746	125.381	0.21712	0.12548	125.163	0.21662	210
220	0.13677	128.359	0.22190	0.13472	128.163	0.22142	0.13271	127.966	0.22095	0.13074	127.768	0.22048	220
230	0.14175	130.829	0.22550	0.13969	130.650	0.22506	0.13768	130.469	0.22461	0.13570	130.286	0.22416	230
240	0.14651	133.241	0.22898	0.14444	133.074	0.22855	0.14241	132.907	0.22812	0.14042	132.738	0.22769	240
250	0.15108	135.605	0.23233	0.14899	135.449	0.23192	0.14695	135.293	0.23150	0.14495	135.136	0.23109	250
260	0.15549	137.930	0.23558	0.15339	137.784	0.23518	0.15134	137.637	0.23478	0.14932	137.490	0.23439	260
270	0.15977	140.223	0.23875	0.15765	140.086	0.23836	0.15558	139.948	0.23797	0.15354	139.810	0.23759	270
280	0.16393	142.491	0.24184	0.16179	142.361	0.24146	0.15970	142.231	0.24108	0.15764	142.101	0.24070	280
290	0.16799	144.738	0.24485	0.16583	144.615	0.24448	0.16371	144.491	0.24411	0.16164	144.368	0.24375	290
300	0.17195	146.967	0.24781	0.16977	146.850	0.24744	0.16763	146.733	0.24708	0.16554	146.615	0.24673	300
310	0.17584	149.181	0.25070	0.17363	149.070	0.25035	0.17147	148.958	0.24999	0.16935	148.846	0.24964	310
320	0.17965	151.384	0.25355	0.17742	151.278	0.25320	0.17523	151.172	0.25285	0.17309	151.065	0.25251	320
330	0.18339	153.578	0.25634	0.18113	153.476	0.25600	0.17892	153.374	0.25566	0.17676	153.272	0.25532	330
340	0.18707	155.764	0.25909	0.18479	155.667	0.25876	0.18256	155.569	0.25842	0.18037	155.471	0.25809	340
350	0.19070	157.945	0.26180	0.18840	157.851	0.26147	0.18614	157.757	0.26114	0.18392	157.663	0.26081	350
360	0.19428	160.121	0.26447	0.19195	160.031	0.26415	0.18966	159.940	0.26382	0.18743	159.850	0.26350	360
370	0.19782	162.294	0.26711	0.19546	162.207	0.26678	0.19315	162.120	0.26646	0.19088	162.033	0.26614	370
380	0.20131	164.465	0.26971	0.19892	164.381	0.26939	0.19659	164.297	0.26907	0.19430	164.214	0.26876	380
390	0.20476	166.635	0.27228	0.20235	166.554	0.27196	0.19999	166.473	0.27165	0.19767	166.392	0.27134	390
400	0.20818	168.804	0.27482	0.20574	168.726	0.27450	0.20335	168.648	0.27419	0.20101	168.570	0.27388	400
410	0.21156	170.975	0.27733	0.20910	170.899	0.27702	0.20668	170.824	0.27671	0.20432	170.748	0.27640	410
420	0.21492	173.146	0.27981	0.21242	173.073	0.27950	0.20998	173.000	0.27920	0.20759	172.927	0.27889	420
430	0.21824	175.320	0.28227	0.21572	175.249	0.28196	0.21325	175.178	0.28166	0.21083	175.108	0.28136	430
440	0.22154	177.496	0.28470	0.21899	177.427	0.28440	0.21649	177.359	0.28410	0.21405	177.290	0.28380	440
450	0.22481	179.675	0.28711	0.22224	179.608	0.28681	0.21971	179.542	0.28651	0.21724	179.475	0.28621	450
460	0.22806	181.857	0.28949	0.22546	181.792	0.28919	0.22291	181.727	0.28890	0.22041	181.663	0.28860	460
470	0.23129	184.042	0.29186	0.22866	183.980	0.29156	0.22608	183.917	0.29127	0.22356	183.854	0.29097	470

TEMP. °F	485			490			495			500			TEMP. °F
	470.304 (167.75 °F)			475.304 (168.67 °F)			480.304 (169.59 °F)			485.304 (170.50 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.094688)	(111.662)	(0.19559)	(0.093281)	(111.573)	(0.19531)	(0.091896)	(111.481)	(0.19503)	(0.090533)	(111.384)	(0.19474)	
170	0.096763	112.555	0.19700	0.094531	112.114	0.19617	0.092293	111.653	0.19530	—	—	—	170
180	0.10485	116.125	0.20264	0.10280	115.781	0.20195	0.10076	115.427	0.20125	0.098744	115.064	0.20054	180
190	0.11174	119.284	0.20754	0.10977	118.995	0.20693	0.10783	118.701	0.20633	0.10591	118.402	0.20571	190
200	0.11790	122.196	0.21199	0.11597	121.945	0.21144	0.11407	121.690	0.21089	0.11220	121.432	0.21034	200
210	0.12354	124.942	0.21612	0.12163	124.718	0.21561	0.11975	124.492	0.21511	0.11791	124.263	0.21460	210
220	0.12880	127.567	0.22001	0.12689	127.365	0.21954	0.12503	127.161	0.21906	0.12319	126.954	0.21859	220
230	0.13376	130.103	0.22371	0.13185	129.917	0.22326	0.12998	129.731	0.22282	0.12815	129.543	0.22237	230
240	0.13847	132.568	0.22726	0.13656	132.397	0.22683	0.13469	132.225	0.22641	0.13285	132.051	0.22598	240
250	0.14299	134.977	0.23068	0.14107	134.818	0.23027	0.13918	134.658	0.22986	0.13733	134.497	0.22946	250
260	0.14734	137.342	0.23399	0.14541	137.194	0.23359	0.14351	137.044	0.23320	0.14164	136.894	0.23281	260
270	0.15155	139.671	0.23720	0.14960	139.531	0.23682	0.14768	139.391	0.23644	0.14580	139.250	0.23606	270
280	0.15563	141.969	0.24033	0.15366	141.837	0.23996	0.15173	141.705	0.23959	0.14983	141.572	0.23922	280
290	0.15961	144.243	0.24338	0.15762	144.119	0.24302	0.15567	143.993	0.24266	0.15375	143.868	0.24230	290
300	0.16348	146.497	0.24637	0.16147	146.379	0.24602	0.15950	146.260	0.24567	0.15757	146.141	0.24532	300
310	0.16728	148.734	0.24930	0.16525	148.621	0.24895	0.16325	148.508	0.24861	0.16130	148.395	0.24826	310
320	0.17099	150.957	0.25217	0.16894	150.850	0.25183	0.16693	150.742	0.25149	0.16495	150.634	0.25115	320
330	0.17464	153.170	0.25499	0.17257	153.067	0.25465	0.17053	152.964	0.25432	0.16854	152.861	0.25399	330
340	0.17823	155.373	0.25776	0.17613	155.274	0.25743	0.17407	155.176	0.25710	0.17205	155.077	0.25678	340
350	0.18176	157.569	0.26049	0.17963	157.475	0.26016	0.17755	157.380	0.25984	0.17552	157.285	0.25952	350
360	0.18524	159.760	0.26318	0.18309	159.669	0.26286	0.18099	159.578	0.26254	0.17893	159.487	0.26223	360
370	0.18867	161.946	0.26583	0.18650	161.859	0.26551	0.18437	161.771	0.26520	0.18229	161.684	0.26489	370
380	0.19206	164.130	0.26844	0.18986	164.045	0.26813	0.18771	163.961	0.26782	0.18560	163.877	0.26752	380
390	0.19541	166.311	0.27103	0.19319	166.230	0.27072	0.19101	166.149	0.27041	0.18888	166.068	0.27011	390
400	0.19872	168.492	0.27358	0.19648	168.414	0.27327	0.19428	168.335	0.27297	0.19212	168.257	0.27267	400
410	0.20200	170.673	0.27610	0.19973	170.597	0.27580	0.19751	170.521	0.27550	0.19533	170.445	0.27520	410
420	0.20525	172.854	0.27859	0.20295	172.781	0.27830	0.20071	172.707	0.27800	0.19850	172.634	0.27771	420
430	0.20847	175.037	0.28106	0.20615	174.966	0.28077	0.20388	174.895	0.28047	0.20165	174.823	0.28018	430
440	0.21166	177.221	0.28350	0.20931	177.152	0.28321	0.20702	177.083	0.28292	0.20477	177.014	0.28263	440
450	0.21483	179.408	0.28592	0.21246	179.341	0.28563	0.21014	179.274	0.28534	0.20786	179.208	0.28505	450
460	0.21797	181.598	0.28831	0.21557	181.533	0.28803	0.21323	181.468	0.28774	0.21093	181.403	0.28745	460
470	0.22109	183.791	0.29069	0.21867	183.728	0.29040	0.21630	183.665	0.29011	0.21398	183.602	0.28983	470
480	—	—	—	—	—	—	—	—	—	0.21700	185.803	0.29219	480

TABLE II HCFC-22 SUPERHEATED VAPOR–CONSTANT PRESSURE TABLES AT PRESSURE INTERVALS

V = volume in cu ft/lb; H = enthalpy in Btu/lb; S = entropy in Btu/(lb)(°R) (saturation properties in parentheses)

ABSOLUTE PRESSURE, lb/sq in

TEMP. °F	505			510			515			520			TEMP. °F
	490.304 (171.40 °F)			495.304 (172.29 °F)			500.304 (173.18 °F)			505.304 (174.06 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.089191)	(111.285)	(0.19445)	(0.087869)	(111.181)	(0.19416)	(0.086565)	(111.074)	(0.19386)	(0.085280)	(110.963)	(0.19356)	
180	0.096741	114.691	0.19981	0.094749	114.305	0.19907	0.092765	113.907	0.19831	0.090787	113.495	0.19753	180
190	0.10402	118.096	0.20509	0.10214	117.784	0.20447	0.10029	117.466	0.20383	0.098457	117.140	0.20319	190
200	0.11036	121.170	0.20979	0.10854	120.903	0.20923	0.10675	120.633	0.20867	0.10499	120.358	0.20811	200
210	0.11609	124.031	0.21410	0.11431	123.797	0.21359	0.11255	123.560	0.21308	0.11082	123.320	0.21256	210
220	0.12139	126.746	0.21812	0.11961	126.536	0.21765	0.11787	126.324	0.21717	0.11615	126.109	0.21670	220
230	0.12635	129.353	0.22193	0.12458	129.161	0.22148	0.12284	128.969	0.22104	0.12113	128.774	0.22059	230
240	0.13104	131.877	0.22556	0.12927	131.701	0.22514	0.12752	131.524	0.22471	0.12581	131.345	0.22429	240
250	0.13552	134.336	0.22905	0.13374	134.173	0.22864	0.13199	134.009	0.22824	0.13027	133.844	0.22784	250
260	0.13982	136.743	0.23242	0.13802	136.591	0.23203	0.13626	136.438	0.23164	0.13454	136.284	0.23125	260
270	0.14396	139.108	0.23568	0.14215	138.965	0.23530	0.14038	138.822	0.23493	0.13864	138.679	0.23456	270
280	0.14798	141.439	0.23885	0.14615	141.305	0.23849	0.14437	141.170	0.23813	0.14261	141.035	0.23776	280
290	0.15188	143.741	0.24195	0.15004	143.615	0.24159	0.14823	143.488	0.24124	0.14646	143.360	0.24089	290
300	0.15568	146.021	0.24497	0.15382	145.901	0.24462	0.15200	145.781	0.24428	0.15021	145.660	0.24393	300
310	0.15939	148.281	0.24792	0.15751	148.167	0.24758	0.15567	148.053	0.24725	0.15386	147.938	0.24691	310
320	0.16302	150.526	0.25082	0.16112	150.417	0.25049	0.15926	150.308	0.25016	0.15744	150.199	0.24983	320
330	0.16658	152.757	0.25366	0.16466	152.653	0.25334	0.16278	152.549	0.25301	0.16094	152.445	0.25269	330
340	0.17008	154.978	0.25646	0.16814	154.879	0.25614	0.16624	154.779	0.25582	0.16437	154.679	0.25550	340
350	0.17352	157.190	0.25921	0.17156	157.095	0.25889	0.16964	157.000	0.25858	0.16775	156.904	0.25827	350
360	0.17690	159.396	0.26191	0.17492	159.304	0.26160	0.17298	159.213	0.26130	0.17108	159.121	0.26099	360
370	0.18024	161.596	0.26458	0.17824	161.508	0.26428	0.17628	161.420	0.26397	0.17435	161.332	0.26367	370
380	0.18354	163.792	0.26721	0.18151	163.708	0.26691	0.17953	163.623	0.26661	0.17758	163.538	0.26631	380
390	0.18679	165.986	0.26981	0.18475	165.904	0.26951	0.18274	165.823	0.26922	0.18077	165.741	0.26892	390
400	0.19001	168.178	0.27238	0.18794	168.099	0.27208	0.18591	168.020	0.27179	0.18392	167.941	0.27150	400
410	0.19319	170.369	0.27491	0.19110	170.293	0.27462	0.18905	170.217	0.27433	0.18704	170.140	0.27404	410
420	0.19635	172.560	0.27742	0.19423	172.487	0.27713	0.19216	172.413	0.27684	0.19012	172.339	0.27655	420
430	0.19947	174.752	0.27989	0.19733	174.681	0.27961	0.19523	174.609	0.27932	0.19317	174.538	0.27904	430
440	0.20256	176.945	0.28234	0.20040	176.876	0.28206	0.19828	176.807	0.28178	0.19620	176.738	0.28150	440
450	0.20563	179.141	0.28477	0.20345	179.073	0.28449	0.20130	179.006	0.28421	0.19920	178.939	0.28393	450
460	0.20868	181.338	0.28717	0.20647	181.273	0.28689	0.20430	181.208	0.28662	0.20218	181.143	0.28634	460
470	0.21170	183.538	0.28955	0.20947	183.475	0.28928	0.20728	183.412	0.28900	0.20513	183.348	0.28873	470
480	0.21470	185.742	0.29191	0.21244	185.680	0.29163	0.21023	185.619	0.29136	0.20806	185.557	0.29109	480

TEMP. °F	525			530			535			540			TEMP. °F
	510.304 (174.93 °F)			515.304 (175.80 °F)			520.304 (176.66 °F)			525.304 (177.51 °F)			
	V	H	S	V	H	S	V	H	S	V	H	S	
	(0.084013)	(110.847)	(0.19325)	(0.082762)	(110.728)	(0.19294)	(0.081528)	(110.604)	(0.19263)	(0.080309)	(110.475)	(0.19231)	
180	0.088811	113.067	0.19674	0.086832	112.622	0.19591	0.084846	112.158	0.19506	0.082848	111.672	0.19418	180
190	0.096642	116.806	0.20254	0.094842	116.465	0.20188	0.093056	116.114	0.20120	0.091282	115.754	0.20052	190
200	0.10325	120.078	0.20754	0.10153	119.794	0.20696	0.099830	119.504	0.20638	0.098151	119.210	0.20580	200
210	0.10911	123.076	0.21205	0.10743	122.830	0.21153	0.10578	122.580	0.21101	0.10415	122.327	0.21049	210
220	0.11447	125.892	0.21622	0.11281	125.673	0.21574	0.11117	125.452	0.21527	0.10957	125.228	0.21479	220
230	0.11945	128.578	0.22014	0.11779	128.380	0.21970	0.11617	128.180	0.21925	0.11457	127.979	0.21880	230
240	0.12413	131.166	0.22387	0.12248	130.985	0.22345	0.12086	130.802	0.22303	0.11926	130.618	0.22260	240
250	0.12858	133.678	0.22743	0.12692	133.511	0.22703	0.12530	133.343	0.22663	0.12370	133.173	0.22623	250
260	0.13284	136.130	0.23087	0.13117	135.975	0.23048	0.12954	135.819	0.23010	0.12793	135.662	0.22971	260
270	0.13693	138.534	0.23418	0.13525	138.389	0.23381	0.13361	138.243	0.23344	0.13199	138.097	0.23307	270
280	0.14089	140.899	0.23740	0.13920	140.763	0.23704	0.13754	140.626	0.23668	0.13591	140.489	0.23633	280
290	0.14472	143.232	0.24054	0.14302	143.104	0.24019	0.14134	142.974	0.23984	0.13970	142.845	0.23949	290
300	0.14845	145.538	0.24359	0.14673	145.417	0.24325	0.14504	145.295	0.24291	0.14338	145.172	0.24258	300
310	0.15209	147.823	0.24658	0.15035	147.707	0.24625	0.14864	147.591	0.24592	0.14697	147.475	0.24559	310
320	0.15565	150.089	0.24950	0.15389	149.979	0.24918	0.15216	149.869	0.24886	0.15047	149.758	0.24854	320
330	0.15913	152.340	0.25237	0.15735	152.235	0.25205	0.15561	152.130	0.25174	0.15390	152.025	0.25142	330
340	0.16255	154.579	0.25519	0.16075	154.479	0.25488	0.15899	154.378	0.25457	0.15726	154.278	0.25426	340
350	0.16590	156.808	0.25796	0.16409	156.712	0.25765	0.16231	156.616	0.25735	0.16056	156.519	0.25704	350
360	0.16921	159.029	0.26069	0.16737	158.937	0.26038	0.16557	158.844	0.26008	0.16381	158.752	0.25978	360
370	0.17246	161.243	0.26337	0.17061	161.155	0.26307	0.16879	161.066	0.26278	0.16700	160.977	0.26248	370
380	0.17567	163.453	0.26602	0.17379	163.368	0.26572	0.17196	163.282	0.26543	0.17015	163.197	0.26514	380
390	0.17884	165.659	0.26863	0.17694	165.577	0.26834	0.17508	165.494	0.26805	0.17326	165.412	0.26776	390
400	0.18197	167.862	0.27121	0.18005	167.783	0.27092	0.17817	167.704	0.27064	0.17633	167.624	0.27035	400
410	0.18506	170.064	0.27375	0.18312	169.987	0.27347	0.18122	169.911	0.27319	0.17936	169.834	0.27291	410
420	0.18812	172.265	0.27627	0.18617	172.191	0.27599	0.18424	172.117	0.27571	0.18236	172.043	0.27543	420
430	0.19116	174.466	0.27876	0.18918	174.395	0.27848	0.18723	174.323	0.27820	0.18533	174.251	0.27793	430
440	0.19416	176.669	0.28122	0.19216	176.599	0.28094	0.19020	176.530	0.28067	0.18827	176.460	0.28040	440
450	0.19714	178.872	0.28366	0.19512	178.805	0.28338	0.19313	178.737	0.28311	0.19119	178.670	0.28284	450
460	0.20009	181.077	0.28607	0.19805	181.012	0.28580	0.19604	180.947	0.28553	0.19408	180.881	0.28526	460
470	0.20303	183.285	0.28846	0.20096	183.222	0.28819	0.19893	183.158	0.28792	0.19694	183.095	0.28765	470
480	0.20594	185.496	0.29082	0.20385	185.434	0.29055	0.20180	185.372	0.29029	0.19979	185.311	0.29002	480

For Further Information:

DuPont Fluorochemicals
Wilmington, DE 19880-0711
(800) 235-Suva
www.suva.dupont.com

Europe

DuPont de Nemours
International S.A.
2 Chemin du Pavillon
P.O. Box 50
CH-1218 Le Grand-Saconnex
Geneva, Switzerland
41-22-717-5111

Canada

DuPont Canada, Inc.
P.O. Box 2200, Streetsville
Mississauga, Ontario
Canada
L5M 2H3
(905) 821-3300

Mexico

DuPont, S.A. de C.V.
Homero 206
Col. Chapultepec Morales
C.P. 11570 Mexico, D.F.
52-5-722-1100

South America

DuPont do Brasil S.A.
Alameda Itapecuru, 506
Alphaville 06454-080 Barueri
São Paulo, Brazil
55-11-7266-8263

DuPont Argentina S.A.
Casilla Correo 1888
Correo Central
1000 Buenos Aires, Argentina
54-1-311-8167

Pacific

DuPont Australia
P.O. Box 930
North Sydney, NSW 2060
Australia
61-2-99236111

Japan

Mitsui DuPont Fluorochemicals
Co., Ltd.
Chiyoda Honsha Bldg.
5-18, 1-Chome Sarugakucho
Chiyoda-Ku, Tokyo 101-0064 Japan
81-3-5281-5805

Asia

DuPont Taiwan
P.O. Box 81-777
Taipei, Taiwan
886-2-514-4400

DuPont China Limited
P.O. Box TST 98851
1122 New World Office Bldg.
(East Wing)
Tsim Sha Tsui
Kowloon, Hong Kong
Phone: 852-734-5398
Fax: 852-236-83516

DuPont Thailand Ltd.
9-11 Floor, Yada Bldg.
56 Silom Road
Suriyawongse, Bankrak
Bangkok 10500
Phone: 66-2-238-0026
Fax: 66-2-238-4396

DuPont China Ltd.
Rm. 1704, Union Bldg.
100 Yenan Rd. East
Shanghai, PR China 200 002
Phone: 86-21-328-3738
Telex: 33448 DCLSH CN
Fax: 86-21-320-2304

DuPont Far East Inc.
6th Floor Bangunan Samudra
No. 1 JLN. Kontraktor U1/14, SEK U1
Hicom-Glenmarie Industrial Park
40150 Shah Alam, Selangor Malaysia
Phone 60-3-517-2534

DuPont Korea Inc.
4/5th Floor, Asia Tower
#726, Yeoksam-dong, Kangnam-ku
Seoul, 135-082, Korea
82-2-721-5114

DuPont Singapore Pte. Ltd.
1 Maritime Square #07 01
World Trade Centre
Singapore 0409
65-273-2244

DuPont Far East, Philippines
8th Floor, Solid Bank Bldg.
777 Paseo de Roxas
Makati, Metro Manila
Philippines
Phone: 63-2-818-9911
Fax: 63-2-818-9659

DuPont Far East Inc.
7A Murray's Gate Road
Alwarpet
Madras, 600 018, India
91-44-454-029

DuPont Far East Inc.—Pakistan
9 Khayaban-E-Shaheen
Defence Phase 5
Karachi, Pakistan
92-21-533-350

DuPont Far East Inc.
P.O. Box 2553/Jkt
Jakarta 10001, Indonesia
62-21-517-800

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