Forane® 408A

(7.0% R-125, 46.0% R-143a, 47.0% R-22 by weight)

Thermodynamic Properties (Saturation) - ENG

This data was generated using the NIST REFPROP Database

(Lemmon, E.W., Huber, M.L., McLinden, M.O. NIST Standard Reference Database 23: Reference Fluid Thermodynamic and Transport Properties-REFPROP, Version 9.0, National Institute of Standards and Technology, Standard Reference Data Program, Gaithersburg, 2010)

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-150	0.355	0.336	0.01110	113.25	90.12	0.00883	33.61	145.27	0.10702	0.46826	-150
-149	0.373	0.354	0.01111	107.93	90.03	0.00927	33.88	145.41	0.10790	0.46752	-149
-148	0.393	0.372	0.01112	102.89	89.94	0.00972	34.16	145.54	0.10878	0.46678	-148
-147	0.413	0.391	0.01113	98.13	89.85	0.01019	34.43	145.67	0.10965	0.46606	-147
-146	0.434	0.412	0.01114	93.62	89.76	0.01068	34.70	145.80	0.11053	0.46534	-146
-145	0.456	0.433	0.01115	89.35	89.67	0.01119	34.98	145.94	0.11139	0.46463	-145
-144	0.478	0.454	0.01116	85.31	89.57	0.01172	35.25	146.07	0.11226	0.46393	-144
-143	0.502	0.477	0.01118	81.47	89.48	0.01227	35.52	146.20	0.11312	0.46323	-143
-142	0.527	0.501	0.01119	77.84	89.39	0.01285	35.80	146.33	0.11398	0.46255	-142
-141	0.553	0.526	0.01120	74.40	89.30	0.01344	36.07	146.47	0.11484	0.46187	-141
-140	0.580	0.552	0.01121	71.13	89.21	0.01406	36.34	146.60	0.11570	0.46119	-140
-139	0.608	0.579	0.01122	68.03	89.12	0.01470	36.61	146.73	0.11655	0.46053	-139
-138	0.637	0.607	0.01123	65.08	89.03	0.01537	36.89	146.87	0.11740	0.45987	-138
-137	0.667	0.636	0.01124	62.28	88.94	0.01606	37.16	147.00	0.11825	0.45922	-137
-136	0.698	0.666	0.01126	59.63	88.85	0.01677	37.43	147.13	0.11909	0.45857	-136
-135	0.731	0.697	0.01127	57.10	88.76	0.01751	37.71	147.27	0.11994	0.45794	-135
-134	0.765	0.730	0.01128	54.70	88.67	0.01828	37.98	147.40	0.12078	0.45731	-134
-133	0.800	0.764	0.01129	52.42	88.58	0.01908	38.25	147.53	0.12162	0.45668	-133
-132	0.837	0.799	0.01130	50.25	88.49	0.01990	38.53	147.67	0.12245	0.45607	-132
-131	0.875	0.836	0.01131	48.18	88.40	0.02076	38.80	147.80	0.12329	0.45546	-131
-130	0.914	0.874	0.01132	46.21	88.31	0.02164	39.08	147.93	0.12412	0.45485	-130
-129	0.955	0.914	0.01134	44.34	88.22	0.02255	39.35	148.07	0.12495	0.45425	-129
-128	0.998	0.955	0.01135	42.55	88.12	0.02350	39.62	148.20	0.12577	0.45366	-128
-127	1.042	0.997	0.01136	40.85	88.03	0.02448	39.90	148.34	0.12660	0.45308	-127
-126	1.087	1.041	0.01137	39.23	87.94	0.02549	40.17	148.47	0.12742	0.45250	-126
-125	1.135	1.087	0.01138	37.69	87.85	0.02654	40.45	148.61	0.12824	0.45193	-125
-124	1.184	1.135	0.01140	36.21	87.76	0.02762	40.72	148.74	0.12906	0.45136	-124
-123	1.235	1.184	0.01141	34.80	87.67	0.02873	40.99	148.87	0.12987	0.45080	-123
-122	1.287	1.235	0.01142	33.46	87.58	0.02989	41.27	149.01	0.13068	0.45025	-122
-121	1.341	1.287	0.01143	32.18	87.49	0.03108	41.54	149.14	0.13150	0.44970	-121
-120	1.398	1.342	0.01144	30.96	87.40	0.03231	41.82	149.28	0.13230	0.44916	-120
-119	1.456	1.398	0.01145	29.79	87.30	0.03357	42.09	149.41	0.13311	0.44862	-119
-118	1.516	1.457	0.01147	28.67	87.21	0.03488	42.37	149.55	0.13392	0.44809	-118
-117	1.579	1.517	0.01148	27.60	87.12	0.03623	42.64	149.68	0.13472	0.44756	-117
-116	1.643	1.580	0.01149	26.58	87.03	0.03763	42.92	149.82	0.13552	0.44704	-116
-115	1.710	1.644	0.01150	25.60	86.94	0.03906	43.19	149.95	0.13632	0.44653	-115
-114	1.778	1.711	0.01152	24.67	86.85	0.04054	43.47	150.09	0.13712	0.44602	-114
-113	1.850	1.780	0.01153	23.77	86.76	0.04207	43.74	150.22	0.13791	0.44552	-113
-112	1.923	1.851	0.01154	22.92	86.66	0.04364	44.02	150.36	0.13870	0.44502	-112
-111	1.999	1.925	0.01155	22.10	86.57	0.04526	44.29	150.49	0.13949	0.44453	-111
-110	2.077	2.001	0.01156	21.31	86.48	0.04693	44.57	150.63	0.14028	0.44404	-110
-109	2.158	2.080	0.01158	20.56	86.39	0.04864	44.84	150.76	0.14107	0.44356	-109
-108	2.241	2.161	0.01159	19.84	86.30	0.05041	45.12	150.90	0.14185	0.44308	-108
-107	2.327	2.244	0.01160	19.15	86.20	0.05223	45.39	151.04	0.14264	0.44261	-107
-106	2.416	2.330	0.01161	18.49	86.11	0.05410	45.67	151.17	0.14342	0.44214	-106
-105	2.507	2.419	0.01163	17.85	86.02	0.05603	45.95	151.31	0.14420	0.44168	-105
-104	2.601	2.511	0.01164	17.24	85.93	0.05801	46.22	151.44	0.14498	0.44122	-104
-103	2.699	2.606	0.01165	16.66	85.84	0.06004	46.50	151.58	0.14575	0.44076	-103
-102	2.799	2.703	0.01166	16.09	85.74	0.06214	46.78	151.71	0.14652	0.44032	-102
-101	2.902	2.804	0.01168	15.56	85.65	0.06429	47.05	151.85	0.14730	0.43987	-101
-100	3.008	2.907	0.01169	15.04	85.56	0.06650	47.33	151.98	0.14807	0.43943	-100
-99	3.117	3.014	0.01170	14.54	85.46	0.06877	47.61	152.12	0.14884	0.43900	-99
-98	3.230	3.124	0.01171	14.06	85.37	0.07111	47.88	152.25	0.14960	0.43857	-98

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-97	3.346	3.237	0.01173	13.61	85.28	0.07350	48.16	152.39	0.15037	0.43814	-97
-96	3.465	3.353	0.01174	13.16	85.19	0.07596	48.44	152.53	0.15113	0.43772	-96
-95	3.588	3.473	0.01175	12.74	85.09	0.07849	48.72	152.66	0.15189	0.43731	-95
-94	3.714	3.596	0.01177	12.33	85.00	0.08109	49.00	152.80	0.15265	0.43689	-94
-93	3.844	3.723	0.01178	11.94	84.91	0.08375	49.27	152.93	0.15341	0.43649	-93
-92	3.977	3.853	0.01179	11.56	84.81	0.08648	49.55	153.07	0.15417	0.43608	-92
-91	4.115	3.988	0.01180	11.20	84.72	0.08929	49.83	153.20	0.15492	0.43568	-91
-90	4.256	4.125	0.01182	10.85	84.63	0.09216	50.11	153.34	0.15568	0.43529	-90
-89	4.401	4.267	0.01183	10.51	84.53	0.09511	50.39	153.47	0.15643	0.43490	-89
-88	4.550	4.413	0.01184	10.19	84.44	0.09813	50.67	153.61	0.15718	0.43451	-88
-87	4.703	4.562	0.01186	9.878	84.35	0.10123	50.94	153.75	0.15793	0.43413	-87
-86	4.860	4.716	0.01187	9.578	84.25	0.10441	51.22	153.88	0.15867	0.43375	-86
-85	5.021	4.874	0.01188	9.288	84.16	0.10767	51.50	154.02	0.15942	0.43337	-85
-84	5.187	5.036	0.01190	9.009	84.06	0.11100	51.78	154.15	0.16016	0.43300	-84
-83	5.357	5.203	0.01191	8.740	83.97	0.11442	52.06	154.29	0.16091	0.43263	-83
-82	5.531	5.374	0.01192	8.480	83.87	0.11792	52.34	154.42	0.16165	0.43227	-82
-81	5.710	5.549	0.01194	8.230	83.78	0.12151	52.62	154.56	0.16239	0.43191	-81
-80	5.894	5.729	0.01195	7.988	83.69	0.12518	52.90	154.69	0.16313	0.43155	-80
-79	6.083	5.914	0.01196	7.755	83.59	0.12894	53.18	154.83	0.16386	0.43120	-79
-78	6.276	6.103	0.01198	7.531	83.50	0.13279	53.46	154.96	0.16460	0.43085	-78
-77	6.474	6.297	0.01199	7.314	83.40	0.13673	53.74	155.10	0.16533	0.43051	-77
-76	6.677	6.497	0.01200	7.104	83.31	0.14076	54.03	155.23	0.16606	0.43016	-76
-75	6.886	6.701	0.01202	6.902	83.21	0.14489	54.31	155.37	0.16679	0.42983	-75
-74	7.099	6.910	0.01203	6.707	83.12	0.14911	54.59	155.50	0.16752	0.42949	-74
-73	7.318	7.125	0.01205	6.518	83.02	0.15343	54.87	155.64	0.16825	0.42916	-73
-72	7.542	7.345	0.01206	6.336	82.93	0.15784	55.15	155.77	0.16898	0.42883	-72
-71	7.772	7.570	0.01207	6.159	82.83	0.16236	55.43	155.91	0.16970	0.42851	-71
-70	8.007	7.801	0.01209	5.989	82.73	0.16697	55.72	156.04	0.17043	0.42818	-70
-69	8.248	8.037	0.01210	5.824	82.64	0.17169	56.00	156.17	0.17115	0.42787	-69
-68	8.494	8.279	0.01212	5.665	82.54	0.17652	56.28	156.31	0.17187	0.42755	-68
-67	8.747	8.527	0.01213	5.511	82.45	0.18145	56.56	156.44	0.17259	0.42724	-67
-66	9.005	8.781	0.01214	5.362	82.35	0.18649	56.85	156.58	0.17331	0.42693	-66
-65	9.269	9.041	0.01216	5.218	82.25	0.19163	57.13	156.71	0.17403	0.42662	-65
-64	9.540	9.307	0.01217	5.079	82.16	0.19689	57.41	156.84	0.17474	0.42632	-64
-63	9.817	9.579	0.01219	4.944	82.06	0.20227	57.70	156.98	0.17546	0.42602	-63
-62	10.10	9.857	0.01220	4.813	81.96	0.20775	57.98	157.11	0.17617	0.42572	-62
-61	10.39	10.14	0.01222	4.687	81.87	0.21336	58.27	157.25	0.17688	0.42543	-61
-60	10.69	10.43	0.01223	4.565	81.77	0.21908	58.55	157.38	0.17759	0.42514	-60
-59	10.99	10.73	0.01224	4.446	81.67	0.22492	58.83	157.51	0.17830	0.42485	-59
-58	11.30	11.04	0.01226	4.331	81.58	0.23089	59.12	157.64	0.17901	0.42457	-58
-57	11.61	11.35	0.01227	4.220	81.48	0.23697	59.41	157.78	0.17972	0.42429	-57
-56	11.94	11.67	0.01229	4.112	81.38	0.24319	59.69	157.91	0.18043	0.42401	-56
-55	12.27	11.99	0.01230	4.008	81.28	0.24953	59.98	158.04	0.18113	0.42373	-55
-54	12.61	12.32	0.01232	3.906	81.18	0.25599	60.26	158.18	0.18184	0.42346	-54
-53	12.95	12.66	0.01233	3.808	81.09	0.26259	60.55	158.31	0.18254	0.42318	-53
-52	13.30	13.01	0.01235	3.713	80.99	0.26933	60.83	158.44	0.18324	0.42292	-52
-51	13.66	13.37	0.01236	3.621	80.89	0.27619	61.12	158.57	0.18394	0.42265	-51
-50	14.03	13.73	0.01238	3.531	80.79	0.28320	61.41	158.71	0.18464	0.42239	-50
-49	14.41	14.10	0.01239	3.444	80.69	0.29034	61.70	158.84	0.18534	0.42213	-49
-48	14.79	14.48	0.01241	3.360	80.59	0.29762	61.98	158.97	0.18603	0.42187	-48
-47	15.18	14.86	0.01242	3.278	80.49	0.30505	62.27	159.10	0.18673	0.42161	-47
-46	15.58	15.25	0.01244	3.199	80.40	0.31262	62.56	159.23	0.18742	0.42136	-46
-45	15.99	15.66	0.01245	3.122	80.30	0.32033	62.85	159.36	0.18812	0.42111	-45

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
-44	16.40	16.07	0.01247	3.047	80.20	0.32820	63.14	159.49	0.18881	0.42086	-44
-43	16.83	16.48	0.01249	2.974	80.10	0.33621	63.42	159.63	0.18950	0.42061	-43
-42	17.26	16.91	0.01250	2.904	80.00	0.34438	63.71	159.76	0.19019	0.42037	-42
-41	17.70	17.35	0.01252	2.835	79.90	0.35270	64.00	159.89	0.19088	0.42013	-41
-40	18.15	17.79	0.01253	2.769	79.80	0.36118	64.29	160.02	0.19157	0.41989	-40
-39	18.61	18.24	0.01255	2.704	79.70	0.36982	64.58	160.15	0.19226	0.41965	-39
-38	19.08	18.71	0.01256	2.641	79.60	0.37861	64.87	160.28	0.19295	0.41942	-38
-37	19.56	19.18	0.01258	2.580	79.49	0.38758	65.16	160.41	0.19363	0.41919	-37
-36	20.04	19.66	0.01260	2.521	79.39	0.39670	65.45	160.54	0.19432	0.41896	-36
-35	20.54	20.15	0.01261	2.463	79.29	0.40599	65.74	160.67	0.19500	0.41873	-35
-34	21.05	20.65	0.01263	2.407	79.19	0.41546	66.04	160.79	0.19568	0.41850	-34
-33	21.56	21.16	0.01264	2.352	79.09	0.42509	66.33	160.92	0.19636	0.41828	-33
-32	22.09	21.67	0.01266	2.299	78.99	0.43490	66.62	161.05	0.19704	0.41806	-32
-31	22.62	22.20	0.01268	2.248	78.89	0.44488	66.91	161.18	0.19772	0.41784	-31
-30	23.17	22.74	0.01269	2.198	78.78	0.45504	67.20	161.31	0.19840	0.41762	-30
-29	23.72	23.29	0.01271	2.149	78.68	0.46539	67.50	161.44	0.19908	0.41740	-29
-28	24.29	23.85	0.01273	2.101	78.58	0.47591	67.79	161.56	0.19976	0.41719	-28
-27	24.86	24.42	0.01274	2.055	78.48	0.48662	68.08	161.69	0.20043	0.41698	-27
-26	25.45	25.00	0.01276	2.010	78.37	0.49752	68.38	161.82	0.20111	0.41677	-26
-25	26.04	25.59	0.01278	1.966	78.27	0.50861	68.67	161.95	0.20178	0.41656	-25
-24	26.65	26.19	0.01279	1.924	78.17	0.51989	68.97	162.07	0.20245	0.41636	-24
-23	27.27	26.80	0.01281	1.882	78.06	0.53137	69.26	162.20	0.20313	0.41615	-23
-22	27.90	27.42	0.01283	1.842	77.96	0.54304	69.56	162.33	0.20380	0.41595	-22
-21	28.54	28.06	0.01284	1.802	77.86	0.55492	69.85	162.45	0.20447	0.41575	-21
-20	29.19	28.70	0.01286	1.764	77.75	0.56699	70.15	162.58	0.20514	0.41555	-20
-19	29.86	29.36	0.01288	1.726	77.65	0.57927	70.44	162.70	0.20581	0.41536	-19
-18	30.53	30.03	0.01290	1.690	77.54	0.59176	70.74	162.83	0.20648	0.41516	-18
-17	31.22	30.71	0.01291	1.654	77.44	0.60446	71.04	162.95	0.20714	0.41497	-17
-16	31.92	31.40	0.01293	1.620	77.33	0.61737	71.33	163.08	0.20781	0.41478	-16
-15	32.63	32.10	0.01295	1.586	77.23	0.63050	71.63	163.20	0.20848	0.41459	-15
-14	33.35	32.82	0.01297	1.553	77.12	0.64384	71.93	163.33	0.20914	0.41440	-14
-13	34.09	33.54	0.01298	1.521	77.02	0.65741	72.23	163.45	0.20980	0.41421	-13
-12	34.83	34.28	0.01300	1.490	76.91	0.67119	72.53	163.57	0.21047	0.41403	-12
-11	35.59	35.04	0.01302	1.459	76.80	0.68521	72.82	163.70	0.21113	0.41384	-11
-10	36.37	35.80	0.01304	1.430	76.70	0.69945	73.12	163.82	0.21179	0.41366	-10
-9	37.15	36.58	0.01306	1.401	76.59	0.71392	73.42	163.94	0.21245	0.41348	-9
-8	37.95	37.37	0.01308	1.372	76.48	0.72863	73.72	164.07	0.21311	0.41330	-8
-7	38.76	38.18	0.01309	1.345	76.38	0.74358	74.02	164.19	0.21377	0.41312	-7
-6	39.59	38.99	0.01311	1.318	76.27	0.75876	74.32	164.31	0.21443	0.41295	-6
-5	40.43	39.82	0.01313	1.292	76.16	0.77419	74.62	164.43	0.21509	0.41277	-5
-4	41.28	40.67	0.01315	1.266	76.05	0.78987	74.93	164.55	0.21575	0.41260	-4
-3	42.14	41.53	0.01317	1.241	75.95	0.80579	75.23	164.67	0.21640	0.41243	-3
-2	43.02	42.40	0.01319	1.217	75.84	0.82197	75.53	164.79	0.21706	0.41226	-2
-1	43.92	43.28	0.01321	1.193	75.73	0.83840	75.83	164.91	0.21772	0.41209	-1
0	44.82	44.18	0.01322	1.170	75.62	0.85508	76.13	165.03	0.21837	0.41192	0
1	45.74	45.10	0.01324	1.147	75.51	0.87203	76.44	165.15	0.21902	0.41175	1
2	46.68	46.02	0.01326	1.125	75.40	0.88925	76.74	165.27	0.21968	0.41159	2
3	47.63	46.97	0.01328	1.103	75.29	0.90673	77.04	165.39	0.22033	0.41143	3
4	48.60	47.92	0.01330	1.082	75.18	0.92448	77.35	165.51	0.22098	0.41126	4
5	49.58	48.89	0.01332	1.061	75.07	0.94251	77.65	165.63	0.22163	0.41110	5
6	50.57	49.88	0.01334	1.041	74.96	0.96081	77.96	165.74	0.22228	0.41094	6
7	51.58	50.88	0.01336	1.021	74.85	0.97939	78.26	165.86	0.22293	0.41078	7
8	52.61	51.90	0.01338	1.002	74.74	0.99826	78.57	165.98	0.22358	0.41063	8

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
9	53.65	52.93	0.01340	0.983	74.63	1.0174	78.88	166.09	0.22423	0.41047	9
10	54.70	53.98	0.01342	0.964	74.52	1.0369	79.18	166.21	0.22488	0.41031	10
11	55.77	55.04	0.01344	0.946	74.40	1.0566	79.49	166.33	0.22553	0.41016	11
12	56.86	56.12	0.01346	0.929	74.29	1.0766	79.80	166.44	0.22617	0.41001	12
13	57.97	57.22	0.01348	0.912	74.18	1.0970	80.11	166.56	0.22682	0.40985	13
14	59.09	58.33	0.01350	0.895	74.07	1.1176	80.41	166.67	0.22747	0.40970	14
15	60.22	59.46	0.01352	0.878	73.95	1.1386	80.72	166.78	0.22811	0.40955	15
16	61.38	60.60	0.01354	0.862	73.84	1.1598	81.03	166.90	0.22876	0.40940	16
17	62.54	61.76	0.01356	0.846	73.73	1.1814	81.34	167.01	0.22940	0.40926	17
18	63.73	62.94	0.01359	0.831	73.61	1.2033	81.65	167.12	0.23005	0.40911	18
19	64.93	64.14	0.01361	0.816	73.50	1.2256	81.96	167.24	0.23069	0.40896	19
20	66.15	65.35	0.01363	0.801	73.38	1.2481	82.27	167.35	0.23133	0.40882	20
21	67.39	66.58	0.01365	0.787	73.27	1.2710	82.59	167.46	0.23197	0.40867	21
22	68.65	67.82	0.01367	0.773	73.15	1.2942	82.90	167.57	0.23261	0.40853	22
23	69.92	69.09	0.01369	0.759	73.04	1.3178	83.21	167.68	0.23326	0.40839	23
24	71.21	70.37	0.01371	0.745	72.92	1.3417	83.52	167.79	0.23390	0.40825	24
25	72.52	71.67	0.01374	0.732	72.80	1.3659	83.84	167.90	0.23454	0.40811	25
26	73.84	72.98	0.01376	0.719	72.69	1.3905	84.15	168.01	0.23518	0.40797	26
27	75.19	74.32	0.01378	0.706	72.57	1.4155	84.46	168.12	0.23582	0.40783	27
28	76.55	75.67	0.01380	0.694	72.45	1.4408	84.78	168.23	0.23645	0.40769	28
29	77.93	77.05	0.01383	0.682	72.33	1.4665	85.09	168.34	0.23709	0.40755	29
30	79.33	78.44	0.01385	0.670	72.21	1.4926	85.41	168.44	0.23773	0.40742	30
31	80.75	79.85	0.01387	0.658	72.10	1.5190	85.73	168.55	0.23837	0.40728	31
32	82.19	81.28	0.01389	0.647	71.98	1.5458	86.04	168.66	0.23901	0.40714	32
33	83.64	82.72	0.01392	0.636	71.86	1.5730	86.36	168.76	0.23964	0.40701	33
34	85.12	84.19	0.01394	0.625	71.74	1.6006	86.68	168.87	0.24028	0.40688	34
35	86.61	85.68	0.01396	0.614	71.62	1.6286	87.00	168.97	0.24091	0.40674	35
36	88.13	87.18	0.01399	0.604	71.50	1.6570	87.31	169.07	0.24155	0.40661	36
37	89.66	88.71	0.01401	0.593	71.38	1.6858	87.63	169.18	0.24219	0.40648	37
38	91.22	90.25	0.01403	0.583	71.25	1.7150	87.95	169.28	0.24282	0.40635	38
39	92.79	91.82	0.01406	0.573	71.13	1.7446	88.27	169.38	0.24345	0.40622	39
40	94.39	93.41	0.01408	0.564	71.01	1.7746	88.59	169.49	0.24409	0.40609	40
41	96.00	95.01	0.01411	0.554	70.89	1.8051	88.91	169.59	0.24472	0.40596	41
42	97.64	96.64	0.01413	0.545	70.76	1.8360	89.24	169.69	0.24536	0.40583	42
43	99.30	98.29	0.01416	0.536	70.64	1.8673	89.56	169.79	0.24599	0.40570	43
44	101.0	99.96	0.01418	0.527	70.52	1.8991	89.88	169.89	0.24662	0.40557	44
45	102.7	101.7	0.01421	0.518	70.39	1.9313	90.20	169.99	0.24725	0.40544	45
46	104.4	103.4	0.01423	0.509	70.27	1.9639	90.53	170.08	0.24789	0.40531	46
47	106.1	105.1	0.01426	0.501	70.14	1.9971	90.85	170.18	0.24852	0.40519	47
48	107.9	106.9	0.01428	0.492	70.02	2.0307	91.18	170.28	0.24915	0.40506	48
49	109.7	108.6	0.01431	0.484	69.89	2.0647	91.50	170.38	0.24978	0.40493	49
50	111.5	110.4	0.01433	0.476	69.76	2.0993	91.83	170.47	0.25041	0.40481	50
51	113.3	112.2	0.01436	0.469	69.64	2.1343	92.16	170.57	0.25104	0.40468	51
52	115.2	114.1	0.01439	0.461	69.51	2.1698	92.48	170.66	0.25167	0.40456	52
53	117.1	116.0	0.01441	0.453	69.38	2.2058	92.81	170.76	0.25230	0.40443	53
54	119.0	117.8	0.01444	0.446	69.25	2.2423	93.14	170.85	0.25293	0.40431	54
55	120.9	119.8	0.01447	0.439	69.12	2.2794	93.47	170.94	0.25356	0.40418	55
56	122.8	121.7	0.01449	0.432	68.99	2.3169	93.80	171.03	0.25419	0.40406	56
57	124.8	123.6	0.01452	0.425	68.86	2.3550	94.13	171.12	0.25482	0.40393	57
58	126.8	125.6	0.01455	0.418	68.73	2.3936	94.46	171.21	0.25545	0.40381	58
59	128.8	127.6	0.01458	0.411	68.60	2.4327	94.79	171.30	0.25608	0.40369	59
60	130.8	129.7	0.01461	0.404	68.47	2.4724	95.12	171.39	0.25671	0.40356	60
61	132.9	131.7	0.01463	0.398	68.34	2.5127	95.46	171.48	0.25734	0.40344	61

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
62	135.0	133.8	0.01466	0.392	68.21	2.5535	95.79	171.57	0.25797	0.40332	62
63	137.1	135.9	0.01469	0.385	68.07	2.5948	96.12	171.66	0.25860	0.40319	63
64	139.2	138.0	0.01472	0.379	67.94	2.6368	96.46	171.74	0.25923	0.40307	64
65	141.4	140.2	0.01475	0.373	67.80	2.6793	96.79	171.83	0.25986	0.40295	65
66	143.5	142.3	0.01478	0.367	67.67	2.7225	97.13	171.91	0.26049	0.40282	66
67	145.8	144.5	0.01481	0.362	67.53	2.7662	97.47	171.99	0.26111	0.40270	67
68	148.0	146.7	0.01484	0.356	67.40	2.8106	97.80	172.08	0.26174	0.40258	68
69	150.2	149.0	0.01487	0.350	67.26	2.8556	98.14	172.16	0.26237	0.40245	69
70	152.5	151.3	0.01490	0.345	67.12	2.9012	98.48	172.24	0.26300	0.40233	70
71	154.8	153.6	0.01493	0.339	66.98	2.9475	98.82	172.32	0.26363	0.40221	71
72	157.2	155.9	0.01496	0.334	66.85	2.9944	99.16	172.40	0.26426	0.40208	72
73	159.5	158.3	0.01499	0.329	66.71	3.0419	99.50	172.48	0.26488	0.40196	73
74	161.9	160.6	0.01502	0.324	66.57	3.0902	99.84	172.55	0.26551	0.40184	74
75	164.3	163.0	0.01506	0.319	66.43	3.1391	100.19	172.63	0.26614	0.40171	75
76	166.8	165.5	0.01509	0.314	66.28	3.1887	100.53	172.71	0.26677	0.40159	76
77	169.2	167.9	0.01512	0.309	66.14	3.2391	100.87	172.78	0.26740	0.40146	77
78	171.7	170.4	0.01515	0.304	66.00	3.2901	101.22	172.86	0.26803	0.40134	78
79	174.3	172.9	0.01519	0.299	65.86	3.3419	101.56	172.93	0.26866	0.40121	79
80	176.8	175.5	0.01522	0.295	65.71	3.3944	101.91	173.00	0.26929	0.40109	80
81	179.4	178.0	0.01525	0.290	65.57	3.4476	102.26	173.07	0.26992	0.40096	81
82	182.0	180.6	0.01529	0.286	65.42	3.5016	102.61	173.14	0.27054	0.40083	82
83	184.6	183.3	0.01532	0.281	65.27	3.5564	102.95	173.21	0.27117	0.40071	83
84	187.3	185.9	0.01536	0.277	65.13	3.6120	103.30	173.28	0.27180	0.40058	84
85	190.0	188.6	0.01539	0.273	64.98	3.6684	103.65	173.34	0.27243	0.40045	85
86	192.7	191.3	0.01543	0.268	64.83	3.7256	104.01	173.41	0.27306	0.40032	86
87	195.4	194.0	0.01546	0.264	64.68	3.7836	104.36	173.47	0.27369	0.40019	87
88	198.2	196.8	0.01550	0.260	64.53	3.8425	104.71	173.54	0.27433	0.40006	88
89	201.0	199.6	0.01553	0.256	64.38	3.9022	105.07	173.60	0.27496	0.39993	89
90	203.9	202.4	0.01557	0.252	64.23	3.9628	105.42	173.66	0.27559	0.39980	90
91	206.7	205.3	0.01561	0.248	64.07	4.0243	105.78	173.72	0.27622	0.39967	91
92	209.6	208.2	0.01565	0.245	63.92	4.0867	106.13	173.78	0.27685	0.39954	92
93	212.5	211.1	0.01568	0.241	63.76	4.1501	106.49	173.84	0.27748	0.39940	93
94	215.5	214.0	0.01572	0.237	63.61	4.2143	106.85	173.89	0.27812	0.39927	94
95	218.5	217.0	0.01576	0.234	63.45	4.2795	107.21	173.95	0.27875	0.39913	95
96	221.5	220.0	0.01580	0.230	63.29	4.3457	107.57	174.00	0.27938	0.39900	96
97	224.5	223.0	0.01584	0.227	63.14	4.4129	107.93	174.05	0.28002	0.39886	97
98	227.6	226.1	0.01588	0.223	62.98	4.4811	108.29	174.10	0.28065	0.39872	98
99	230.7	229.2	0.01592	0.220	62.82	4.5504	108.66	174.15	0.28129	0.39858	99
100	233.9	232.3	0.01596	0.216	62.65	4.6206	109.02	174.20	0.28192	0.39844	100
101	237.0	235.5	0.01600	0.213	62.49	4.6920	109.39	174.25	0.28256	0.39830	101
102	240.2	238.7	0.01605	0.210	62.33	4.7645	109.75	174.29	0.28320	0.39816	102
103	243.5	241.9	0.01609	0.207	62.16	4.8380	110.12	174.34	0.28383	0.39802	103
104	246.7	245.2	0.01613	0.204	62.00	4.9127	110.49	174.38	0.28447	0.39787	104
105	250.0	248.5	0.01617	0.200	61.83	4.9886	110.86	174.42	0.28511	0.39773	105
106	253.4	251.8	0.01622	0.197	61.66	5.0657	111.23	174.46	0.28575	0.39758	106
107	256.7	255.2	0.01626	0.194	61.49	5.1439	111.61	174.50	0.28639	0.39743	107
108	260.1	258.6	0.01631	0.191	61.32	5.2235	111.98	174.54	0.28703	0.39728	108
109	263.6	262.0	0.01635	0.189	61.15	5.3043	112.36	174.57	0.28767	0.39713	109
110	267.0	265.4	0.01640	0.186	60.97	5.3863	112.73	174.60	0.28832	0.39698	110
111	270.5	268.9	0.01645	0.183	60.80	5.4697	113.11	174.63	0.28896	0.39682	111
112	274.1	272.5	0.01650	0.180	60.62	5.5545	113.49	174.66	0.28961	0.39667	112
113	277.6	276.0	0.01654	0.177	60.44	5.6407	113.87	174.69	0.29025	0.39651	113
114	281.3	279.6	0.01659	0.175	60.27	5.7282	114.25	174.72	0.29090	0.39635	114

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
115	284.9	283.3	0.01664	0.172	60.08	5.8173	114.63	174.74	0.29155	0.39619	115
116	288.6	286.9	0.01669	0.169	59.90	5.9078	115.02	174.76	0.29219	0.39602	116
117	292.3	290.6	0.01675	0.167	59.72	5.9998	115.40	174.78	0.29284	0.39586	117
118	296.0	294.4	0.01680	0.164	59.53	6.0934	115.79	174.80	0.29350	0.39569	118
119	299.8	298.1	0.01685	0.162	59.35	6.1886	116.18	174.81	0.29415	0.39552	119
120	303.6	301.9	0.01690	0.159	59.16	6.2855	116.57	174.83	0.29480	0.39535	120
121	307.5	305.8	0.01696	0.157	58.97	6.3840	116.96	174.84	0.29546	0.39518	121
122	311.4	309.7	0.01701	0.154	58.78	6.4843	117.36	174.85	0.29611	0.39500	122
123	315.3	313.6	0.01707	0.152	58.58	6.5864	117.75	174.86	0.29677	0.39482	123
124	319.3	317.6	0.01713	0.149	58.39	6.6903	118.15	174.86	0.29743	0.39464	124
125	323.3	321.6	0.01719	0.147	58.19	6.7960	118.55	174.86	0.29809	0.39445	125
126	327.3	325.6	0.01724	0.145	57.99	6.9037	118.95	174.86	0.29876	0.39427	126
127	331.4	329.7	0.01730	0.143	57.79	7.0134	119.35	174.86	0.29942	0.39408	127
128	335.5	333.8	0.01737	0.140	57.59	7.1252	119.76	174.85	0.30009	0.39388	128
129	339.7	337.9	0.01743	0.138	57.38	7.2390	120.16	174.84	0.30075	0.39369	129
130	343.9	342.1	0.01749	0.136	57.17	7.3550	120.57	174.83	0.30143	0.39349	130
131	348.1	346.3	0.01756	0.134	56.96	7.4733	120.98	174.82	0.30210	0.39328	131
132	352.4	350.6	0.01762	0.132	56.75	7.5939	121.40	174.80	0.30277	0.39308	132
133	356.7	354.9	0.01769	0.130	56.53	7.7168	121.81	174.78	0.30345	0.39287	133
134	361.0	359.3	0.01776	0.128	56.32	7.8422	122.23	174.76	0.30413	0.39266	134
135	365.4	363.7	0.01783	0.125	56.10	7.9702	122.65	174.73	0.30481	0.39244	135
136	369.9	368.1	0.01790	0.123	55.87	8.1008	123.07	174.70	0.30549	0.39222	136
137	374.3	372.6	0.01797	0.121	55.65	8.2342	123.49	174.67	0.30618	0.39199	137
138	378.8	377.1	0.01804	0.119	55.42	8.3704	123.92	174.63	0.30687	0.39176	138
139	383.4	381.6	0.01812	0.118	55.19	8.5095	124.35	174.59	0.30756	0.39152	139
140	388.0	386.2	0.01820	0.116	54.95	8.6517	124.78	174.55	0.30826	0.39129	140
141	392.6	390.9	0.01828	0.114	54.72	8.7970	125.22	174.50	0.30896	0.39104	141
142	397.3	395.6	0.01836	0.112	54.47	8.9456	125.65	174.45	0.30966	0.39079	142
143	402.1	400.3	0.01844	0.110	54.23	9.0977	126.09	174.39	0.31036	0.39053	143
144	406.8	405.1	0.01853	0.108	53.98	9.2533	126.54	174.33	0.31107	0.39027	144
145	411.7	409.9	0.01861	0.106	53.73	9.4126	126.99	174.26	0.31178	0.39001	145
146	416.5	414.7	0.01870	0.104	53.47	9.5759	127.44	174.19	0.31250	0.38973	146
147	421.4	419.6	0.01879	0.103	53.21	9.7432	127.89	174.12	0.31322	0.38945	147
148	426.4	424.6	0.01889	0.101	52.95	9.9147	128.35	174.03	0.31395	0.38916	148
149	431.4	429.6	0.01898	0.099	52.68	10.091	128.81	173.95	0.31468	0.38887	149
150	436.4	434.6	0.01908	0.097	52.40	10.271	129.28	173.85	0.31541	0.38856	150
151	441.5	439.7	0.01919	0.096	52.12	10.457	129.75	173.75	0.31616	0.38825	151
152	446.6	444.9	0.01929	0.094	51.84	10.648	130.22	173.65	0.31690	0.38793	152
153	451.8	450.0	0.01940	0.092	51.55	10.844	130.70	173.54	0.31765	0.38760	153
154	457.0	455.3	0.01951	0.091	51.25	11.046	131.18	173.42	0.31841	0.38726	154
155	462.3	460.6	0.01963	0.089	50.95	11.254	131.67	173.29	0.31918	0.38691	155
156	467.6	465.9	0.01975	0.087	50.64	11.469	132.17	173.16	0.31995	0.38655	156
157	473.0	471.3	0.01987	0.086	50.33	11.690	132.67	173.01	0.32073	0.38618	157
158	478.4	476.7	0.02000	0.084	50.00	11.919	133.18	172.86	0.32152	0.38580	158
159	483.9	482.2	0.02013	0.082	49.67	12.156	133.69	172.70	0.32232	0.38540	159
160	489.4	487.7	0.02027	0.081	49.33	12.401	134.21	172.52	0.32313	0.38498	160
161	495.0	493.3	0.02042	0.079	48.98	12.656	134.74	172.34	0.32394	0.38455	161
162	500.6	498.9	0.02057	0.077	48.62	12.920	135.27	172.14	0.32477	0.38411	162
163	506.3	504.6	0.02073	0.076	48.25	13.195	135.82	171.94	0.32562	0.38364	163
164	512.1	510.4	0.02089	0.074	47.86	13.481	136.38	171.71	0.32647	0.38316	164
165	517.8	516.2	0.02107	0.073	47.47	13.780	136.94	171.48	0.32734	0.38265	165
166	523.7	522.0	0.02125	0.071	47.06	14.093	137.52	171.22	0.32823	0.38212	166
167	529.6	528.0	0.02145	0.069	46.63	14.422	138.11	170.95	0.32913	0.38156	167

Thermodynamic Properties of R-408A - Saturation

Temperature (°F)	Pressure (psia)		Volume (ft^3/lb)		Density (lb/ft^3)		Enthalpy (Btu/lb)		Entropy (Btu/(lb °R))		Temperature (°F)
	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	Liquid	Vapor	
168	535.5	533.9	0.02165	0.068	46.18	14.768	138.71	170.65	0.33006	0.38097	168
169	541.5	540.0	0.02187	0.066	45.72	15.133	139.33	170.33	0.33101	0.38034	169
170	547.6	546.1	0.02211	0.064	45.23	15.520	139.97	169.99	0.33198	0.37968	170
171	553.7	552.2	0.02237	0.063	44.71	15.932	140.63	169.62	0.33299	0.37897	171
172	559.9	558.4	0.02264	0.061	44.17	16.374	141.31	169.21	0.33403	0.37821	172
173	566.2	564.7	0.02294	0.059	43.59	16.850	142.02	168.76	0.33511	0.37739	173
174	572.5	571.1	0.02328	0.058	42.96	17.368	142.77	168.26	0.33624	0.37650	174
175	578.9	577.5	0.02365	0.056	42.29	17.937	143.55	167.71	0.33744	0.37551	175
176	585.3	584.0	0.02407	0.054	41.54	18.572	144.39	167.07	0.33872	0.37441	176
177	591.8	590.6	0.02457	0.052	40.71	19.293	145.30	166.34	0.34010	0.37316	177
178	598.4	597.2	0.02516	0.050	39.75	20.136	146.31	165.47	0.34163	0.37170	178
179	605.1	604.0	0.02591	0.047	38.60	21.169	147.47	164.39	0.34341	0.36990	179
180	611.8	610.9	0.02697	0.044	37.08	22.551	148.93	162.92	0.34564	0.36752	180
181	618.5	617.9	0.02895	0.040	34.54	24.907	151.24	160.42	0.34919	0.36352	181