Fluorinated Refrigerants

R-404A - Regenerated

R-404A - Regenerated: It is a near-azeotropic gas blend developed as a substitute for R-502 & R-22.

R-404A is a high-safety (A1) near azeotropic HFC blend refrigerant gas designed for retrofit replacement of R-502A and its subsequent substitutes, and in the most extreme applications of R-22. It is also used in new equipment. It is a very versatile refrigerant covering refrigeration needs from preservation to freezing, as well as industrial process cooling applications.

Currently having a GWP above 2,500 has limited its application in Europe.

IUPAC Name:	ASHRAE Name:
R-125, R-143a, R-134a	R-404A

Technical specifications:

0	3922	A1	POE
ODP	GWP	Safety classification	Compatible lubricants

Temperature Range: High, Medium and Low

Replacement: R-502A, its substitutes HCFC and R-22 via Retrofit

Type of replacement: Drop-in

Applications:

- Refrigerated Transport
- Industrial Refrigeration
- Commercial Refrigeration

Packaging sizes for R-404A:

- Cylinders
- Roll Drums
- ISO Tanks

Thermodinamic properties chart:

Bubble point

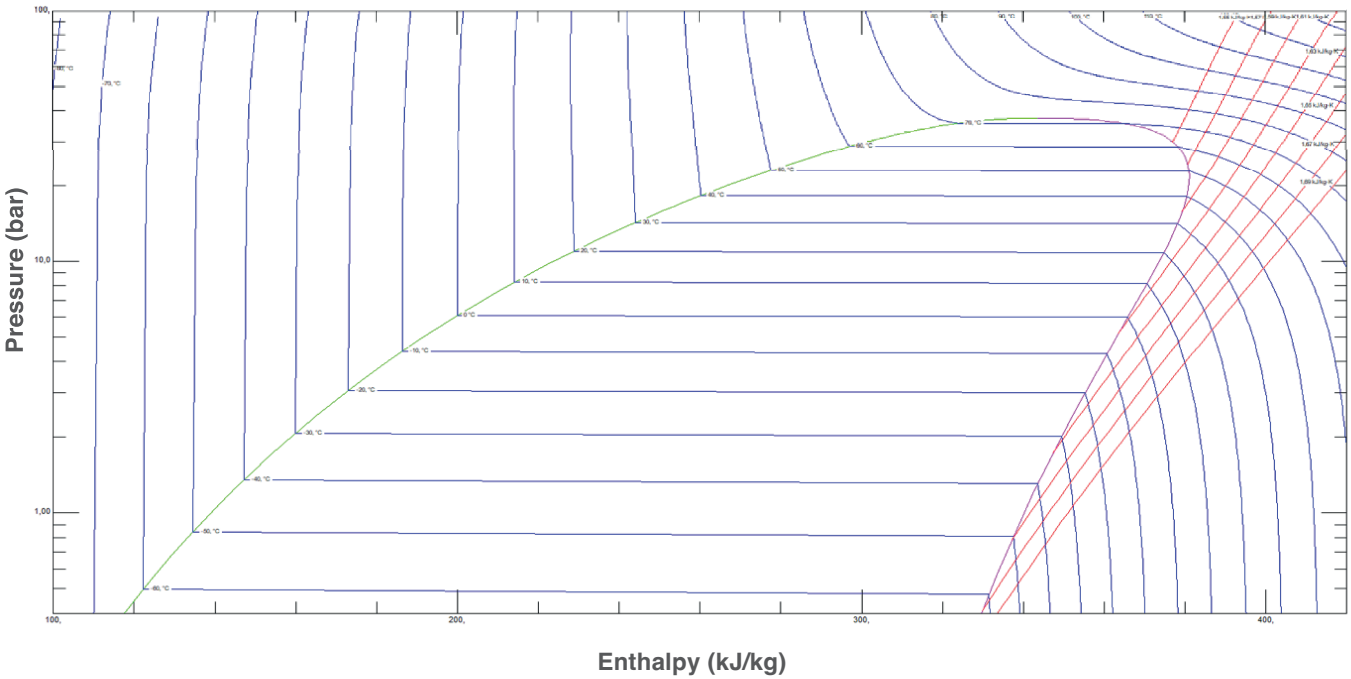
Temperature (°C)	Absolute pressure (bar)	Liquid density (kg/l)	Gas density (kg/l)	Liquid enthalpy (kJ/kg)	Gas enthalpy (kJ/kg)
-60	0,49774	1,348	0,0028161	122,21	330,82
-55	0,65212	1,333	0,0036299	128,38	333,76
-50	0,84236	1,3178	0,0046187	134,59	336,7
-45	1,074	1,3025	0,0058079	140,85	339,64
-40	1,3529	1,2869	0,0072254	147,15	342,56
-35	1,6853	1,2711	0,0089012	153,51	345,46
-30	2,0778	1,255	0,010868	159,93	348,33
-25	2,5373	1,2386	0,013163	166,41	351,17
-20	3,071	1,2218	0,015825	172,97	353,97
-15	3,6864	1,2046	0,018899	179,6	356,71
-10	4,3913	1,1869	0,022436	186,31	359,39
-5	5,1937	1,1688	0,026492	193,1	362
0	6,1019	1,15	0,031133	200	364,53
5	7,1247	1,1306	0,036437	207	366,96
10	8,271	1,1104	0,042494	214,12	369,27
15	9,55	1,0894	0,049414	221,36	371,44
20	10,972	1,0673	0,05733	228,75	373,46
25	12,546	1,0441	0,066407	236,3	375,29
30	14,283	1,0194	0,07686	244,03	376,89
35	16,195	0,99307	0,088966	251,97	378,23
40	18,294	0,96465	0,10311	260,17	379,25
45	20,593	0,93359	0,11982	268,68	379,85
50	23,106	0,89907	0,13994	277,57	379,92
55	25,851	0,85972	0,16481	286,99	379,24
60	28,849	0,81301	0,19701	297,18	377,42

Thermodinamic properties chart:

Dew point

Temperatura (°C)	Presión absoluta (bar)	Densidad líquido (kg/l)	Densidad gas (kg/l)	Entalpía líquido (kJ/kg)	Entalpía gas (kJ/kg)
-60	0,47457	1,3581	0,0026904	122,42	331,4
-55	0,62459	1,3418	0,0034801	128,57	334,46
-50	0,81005	1,3255	0,0044419	134,76	337,51
-45	1,0365	1,3091	0,0056008	141	340,53
-40	1,3097	1,2926	0,0069844	147,28	343,53
-35	1,6362	1,276	0,0086227	153,63	346,51
-30	2,0223	1,2592	0,010548	160,04	349,44
-25	2,4752	1,2421	0,012797	166,51	352,33
-20	3,0019	1,2248	0,015409	173,06	355,16
-15	3,6101	1,2071	0,018428	179,69	357,94
-10	4,3076	1,189	0,021905	186,39	360,65
-5	5,1026	1,1705	0,025895	193,19	363,28
0	6,0033	1,1514	0,030465	200,09	365,82
5	7,0186	1,1317	0,035692	207,09	368,25
10	8,1575	1,1114	0,041664	214,21	370,57
15	9,4294	1,0902	0,048491	221,45	372,74
20	10,844	1,068	0,056306	228,84	374,74
25	12,412	1,0447	0,065274	236,39	376,55
30	14,144	1,02	0,075605	244,12	378,14
35	16,051	0,99374	0,087577	252,06	379,45
40	18,146	0,9654	0,10157	260,25	380,43
45	20,443	0,93448	0,11812	268,74	380,99
50	22,957	0,90014	0,13804	277,63	381,01
55	25,705	0,86105	0,16268	287,02	380,28
60	28,711	0,8147	0,19457	297,18	378,4

Pressure diagram chart:



Normative:

GRIT (Gases Research Innovation & Technology) is committed to the continuous improvement of our inbuilt Quality Control, Environment and Major Accident Prevention Systems as well as close collaboration with our product and service providers. The scope of the system includes the packaging, commercialisation, storage and innovation of technical gases and the management of residual fluorinated gas and halogenated solvents.

All this work is reflected in our certificates ISO 9001 & ISO 14001. GRIT also meets AHRI 700 standard for new and recycled refrigerants.

More information:

If you want more information about our products, contact us.

EUROPE — GRIT, Gases Research Innovation & Technology

BARCELONA

Our plant:
P. I. "El Punsic", parcela 8.3,
08279 Avinyó, Barcelona. Spain.

Our office:
Avda. Diagonal 403, 6º 3ª
08008 Barcelona. Spain.

Phone: (+34) 932 721 400
E-mail: grit@grit.es
Website: www.gasesgrit.com

USA — Summit Refrigerants

HOUSTON

8541 East North Belt
Humble, Texas 77396

Phone: (+1) 281-540-2653
Toll-Free: (+1) 866-971-2653
Fax: (+1) 281-540-0385

DALLAS

2080 McDaniel Drive
Suite 200
Carrollton, Texas 75006

Phone: (+1) 469-458-3195
Fax: (+1) 469-458-3085

BATON ROUGE

10080 Industriplex Avenue
Gonzales, LA 70737

Phone: (+1) 225-744-2653
Fax: (+1) 225-677-6106