REFRIGERANT FACT SHEET
R507

CHARACTERISTICS

R507 is a non-flammable HFC blend refrigerant developed for use in low-temperature commercial refrigeration applications.

Gas2Go® recommends alternative refrigerants with substantially lower GWP such as R448A.

PERFORMANCE

- R507 is suitable for low-temperature refrigeration applications, however alternative lower GWP alternatives are recommended
- R507 has a glide of zero and can be retrofitted easily
- Suitable for use with centrifugal, reciprocating and scroll compressors
- All valves and pressures should be checked when retrofitting from HCFC refrigerants
- Prior to retrofitting changing to POE is required
- R507 is considered a high GWP refrigerant, recommended alternatives include R404A, R407A, R407F, R448A, and R455A

APPLICATIONS

Low Temperature Refrigeration
- Cold storage

Medium Temperature Refrigeration
- Commercial

PHYSICAL ATTRIBUTES

- **ODP:** 0
- **GWP:** 3985
- **Class/ Type:** Azeotrope (A1)
- **Refrigerant Kind:** HFC Blend
- **Oil Type:** Polyolester oil (POE)
- **Glide:** N/A

FEATURES

- Suitable replacement for R22 and R502
- Can be charged with liquid or vapour
- Similar characteristics to R404A
- Suitable for use in new and retrofit systems
- Zero glide

THERMODYNAMIC PERFORMANCE

Comparable physical characteristics and performance to R502 and R404A

PRODUCT PART NUMBERS

- **H507010** 10kg Cylinder
- **H507018** 18kg Cylinder
- **H507055** 55kg Cylinder
- **H507400** 400kg Cylinder

For safety, handling and storage guidelines please refer to the MSDS (available on Chemwatch)

This information is believed to be accurate and reliable, but is provided as a guide only. Beijer Ref Holdings Australia Pty Ltd (T/A Beijer Ref Support) accepts no responsibility and the end user assumes all risks and liability for the use of this information.

PRESSURE TEMPERATURE CHART

Temp C°	Pressure (kPa)
-44	17
-42	28
-40	40
-38	53
-36	67
-34	82
-32	98
-30	114
-28	132
-26	151
-24	171
-22	193
-20	216
-18	240
-16	265
-14	292
-12	320
-10	350
-8	382
-6	415
-4	450
-2	486
0	525
2	565
4	608
6	652
8	698
10	747
12	798
14	851
16	906
18	964
20	1024
22	1087
24	1152
26	1221
28	1291
30	1365
32	1442
34	1521
36	1604
38	1689
40	1778
42	1870
44	1966
46	2064
48	2167
50	2273

PHYSICAL PROPERTIES

Class/ Type	Azeotrope blend
Formula	50% R125/ 50% R143A
Kind	HFC
Appearance	Colourless
ODP	0
GWP	3985
Ashrae Std. 34 Safety Class	A1

Units	AHRI Specification
Molecular Weight	98.9 kg/mol
Boiling Point	– 46.7°C
Critical Temperature	70.9°C
Critical Pressure	37.94 bar
Critical Volume	0.002 m^3/ kg
Critical Density	500.0 kg/m^3
Vapour Density at Boiling Point	5.569 kg/m^3
Liquid Density at 0°C	1047.9 kg/m^3
Liquid Density at 25°C	1046.93 kg/m^3
Vapour Density at 25°C	68.89 kJ/kg °C
Vapour Pressure at 25°C	1287 kPa
Liquid Viscosity at 25°C	184.2 µPa-sec

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