REFRIGERANT FACT SHEET
R422D

CHARACTERISTICS

R422D is a non-ozone depleting HFC based refrigerant designed for the replacement of R22 in refrigeration and air conditioning direct expansion systems. R422D offers similar performance to R22. R422D should not be used in flooded systems.

Gas2Go® recommends alternative refrigerants with substantially lower GWP.

PERFORMANCE

- Capacity and energy efficiency is equivalent to R22
- Polyolester oil is recommended (contact OEM for more information)
- Refrigerant must be charged from the liquid phase to ensure accurate composition
- As with any retrofit, consideration should be given to all seals/gaskets and should be replaced at time of retrofit

APPLICATIONS

Low Temperature Refrigeration

Medium Temperature Refrigeration

Air Conditioning

Water Chillers

PHYSICAL ATTRIBUTES

- **ODP:** 0
- **GWP:** 2729
- **Type (class):** Zeotropic blend (A1)
- **Refrigerant Kind:** HFC blend
- **Oil Type:** Polyolester oil (POE)
- **Glide:** 2.3K

FEATURES

- Lower discharge temperature than R22, which may extend compressor longevity
- Can replace R22 in most cases, without the need to change TX valves (Note: Larger valves may be needed in cases where the R22 valve is near maximum capacity)
- Recommended to change to POE (polyolester oil) for adequate oil return, although may be used with mineral oil or alkylbenzene
- Allows for continued use of existing equipment

THERMODYNAMIC PERFORMANCE

- R422D shows 90% capacity of R22, with similar efficiency
- Compared to other R22 retrofit alternatives R422D possesses a smaller glide.

PRODUCT PART NUMBERS

- **H422D012** 12kg Cylinder
- **H422D060** 60kg Cylinder

For safety, handling and storage information 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

C°	R422D Dew (kPa)	R422D Bubble (kPa)
-44	-25	-4
-42	-17	6
-40	-8	16
-38	2	27
-36	12	39
-34	23	52
-32	35	66
-30	48	81
-28	62	96
-26	77	113
-24	93	130
-22	110	149
-20	128	169
-18	147	190
-16	168	213
-14	189	236
-12	212	261
-10	237	288
-8	262	315
-6	290	345
-4	318	376
-2	349	408
0	381	442
2	414	478
4	450	515
6	487	554
8	526	595
10	567	638
12	610	683
14	655	730
16	702	779
18	751	830
20	802	883
22	856	939
24	912	997
26	971	1057
28	1032	1120
30	1095	1185
32	1161	1252
34	1230	1323
36	1302	1396
38	1376	1471
40	1454	1550
42	1534	1631
44	1618	1716
46	1705	1803
48	1795	1894
50	1888	1988

PHYSICAL PROPERTIES

Class/ Type	Zeotropic blend
Formula	65.1% R125/ 31.5% R134a/ 3.4% isobutane
Kind	HFC blend
Appearance	Colourless
ODP	0
GWP	2729
ASHRAE Std 34 Safety Class	A1

Units	Physical Properties
Molecular Weight	108 g/mol
Boiling Point	-43.2 °C
Critical Temperature	79.6 °C
Critical Pressure	38.17 bar
Critical Density	517.18 kg/m^3
Liquid Viscosity at 25°C	0.155 µPa-sec
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Critical Temperature	79.6 °C
Critical Pressure	38.17 bar
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Liquid Viscosity at 25°C	0.155 µPa-sec

OUR SERVICES

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