

REFRIGERANT FACT SHEET R22

Gas2Go®

CHARACTERISTICS

R22 is an ozone-depleting, non-flammable HCFC refrigerant being phased out in accordance with Australia's obligation to the Montreal Protocol on substances that deplete the ozone layer.

The aim is to reduce supplies to nil by 2030.

Gas2Go® recommends alternative refrigerants with substantially lower GWP.

PERFORMANCE

- R22 is considered an 'end of life' refrigerant
- R22 is being phased out as part of the HCFC phase-out, resulting in limitations being placed on imports, which consequentiality limits availability
- Systems designed for R22 are not suitable for R410A, as the system would need to be designed to handle the higher pressures
- Systems designed for R22 can be retrofitted to R407C, R422D, and R438A
- Alternatives to R22 include R134a, R404A, R407F, R448A and R410A
- Low GWP alternatives include R32 and R1234ze (only for new systems).
- Regular servicing of systems using R22 is essential to minimise leaks.

APPLICATIONS

Note: Not suitable for new applications due to the HCFC phase out



- Low Temperature Refrigeration
- Chest or upright freezer



- Medium Temperature Refrigeration
- Commercial
 - Domestic
 - Cold stores



- Air Conditioning
- Cold storage



Water Chillers

PHYSICAL ATTRIBUTES



- **ODP:** 0.55
- **GWP:** 1700
- **Class/ Type:** Single component (A1)
- **Refrigerant Kind:** HCFC
- **Oil Type:** Mineral Oil, Polyolester (POE) and alkylbenzene (AB)
- **Glide:** N/A

FEATURES

- Non-flammable
- R22 can be charged from the liquid or vapour stage
- R22 systems are typically charged with mineral oil
- No glide
- Large application range

THERMODYNAMIC PERFORMANCE

- High-efficiency refrigerant
- Higher compressor discharge temperature in comparison to HFCs
- Low energy requirement
- Similar thermal loads to R134a and R404A

PRODUCT PART NUMBERS

- **H220012** 12kg Cylinder
- **H220022** 22kg Cylinder
- **H220065** 65kg Cylinder
- **H220450** 450kg 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° | Pressure (kPa) |
|-----|----------------|
| -44 | -13 |
| -42 | -5 |
| -40 | 5 |
| -38 | 15 |
| -36 | 26 |
| -34 | 38 |
| -32 | 50 |
| -30 | 63 |
| -28 | 78 |
| -26 | 93 |
| -24 | 109 |
| -22 | 126 |
| -20 | 145 |
| -18 | 164 |
| -16 | 185 |
| -14 | 207 |
| -12 | 230 |
| -10 | 254 |
| -8 | 280 |
| -6 | 307 |
| -4 | 336 |
| -2 | 366 |
| 0 | 397 |
| 2 | 431 |
| 4 | 466 |
| 6 | 502 |
| 8 | 540 |
| 10 | 581 |
| 12 | 622 |
| 14 | 666 |
| 16 | 712 |
| 18 | 760 |
| 20 | 810 |
| 22 | 862 |
| 24 | 916 |
| 26 | 972 |
| 28 | 1031 |
| 30 | 1092 |
| 32 | 1155 |
| 34 | 1221 |
| 36 | 1289 |
| 38 | 1360 |
| 40 | 1433 |
| 42 | 1509 |
| 44 | 1588 |
| 46 | 1670 |
| 48 | 1754 |
| 50 | 1842 |

PHYSICAL PROPERTIES

| Class/Type | Single Component |
|-----------------------------|------------------|
| Formula | 100% R22 |
| Kind | HCFC |
| Appearance | Colourless |
| ODP | 0.55 |
| GWP | 1700 |
| ASHRAE Std. 34 Safety Class | A1 |

| Units | AHRI Specification |
|----------------------|--------------------------|
| Molecular Weight | 86.5 kg/mol |
| Boiling Point | - 40.8°C |
| Triple Point | 115.73 °C |
| Critical Temperature | 96.2°C |
| Critical Pressure | 49.9 bar |
| Critical Pressure | 0.0019m ³ /kg |
| Critical Density | 523.8 kg/m ³ |

OUR SERVICES



Gas2Go®
Refrigerant Management



Gas2Go®
Gas Doctor Analysis



Gas2Find™
Leak Detection



Gas2Go® Reclaim &
Gas2Go® Pumpdown

YOUR LOCAL HVAC&R REFRIGERANT SPECIALIST



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branches Australia wide



Quality Control
to ISO9001



Access to
Nationwide
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