

# REFRIGERANT FACT SHEET R404A



## CHARACTERISTICS

R404A is a non-flammable HFC blend refrigerant suitable for use in low and medium refrigeration temperature applications.

R404A was developed as a zero ODP refrigerant to replace R502 and R22.

**Gas2Go recommends alternative refrigerants with substantially lower GWP.**

## PERFORMANCE

- Must be charged from the liquid phase to ensure accurate composition
- Changing to POE required and it may be necessary to carry out multiple lubricant flushes in some systems
- R404A is considered as a high GWP refrigerant, recommended alternatives include R448A, R449A and R407F

## APPLICATIONS



Low Temperature Refrigeration

- Cold storage



Medium Temperature Refrigeration

- Commercial

## PHYSICAL ATTRIBUTES



- **ODP:** 0
- **GWP:** 3922
- **Class/ Type:** Zeotropic blend (A1)
- **Refrigerant Kind:** HFC Blend
- **Oil Type:** Polyolester Oil (POE)
- **Glide:** 0.9K

## FEATURES

- Non-flammable (A1)
- Comparable physical and thermodynamic properties to R502
- Can be used in new installations as well as retrofitting of existing equipment
- Requires liquid charge

## THERMODYNAMIC PERFORMANCE

- Provides similar performance in refrigeration systems using R22 in low and medium temperature applications
- Lower discharge temperature than R22 especially in low temperature applications
- Less efficient than R134a
- Poor performance at high ambient temperatures

## PRODUCT PART NUMBERS

- **H404010** 10kg Cylinder
- **H404018** 18kg Cylinder
- **H404050** 50kg Cylinder
- **H404400** 400kg 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 | 4              |
| -42 | 15             |
| -40 | 26             |
| -38 | 39             |
| -36 | 52             |
| -34 | 66             |
| -32 | 81             |
| -30 | 97             |
| -28 | 114            |
| -26 | 133            |
| -24 | 152            |
| -22 | 173            |
| -20 | 195            |
| -18 | 219            |
| -16 | 243            |
| -14 | 270            |
| -12 | 297            |
| -10 | 326            |
| -8  | 357            |
| -6  | 390            |
| -4  | 424            |
| -2  | 460            |
| 0   | 498            |
| 2   | 537            |
| 4   | 579            |
| 6   | 623            |
| 8   | 669            |
| 10  | 716            |
| 12  | 766            |
| 14  | 819            |
| 16  | 873            |
| 18  | 929            |
| 20  | 989            |
| 22  | 1049           |
| 24  | 1119           |
| 26  | 1179           |
| 28  | 1249           |
| 30  | 1329           |
| 32  | 1399           |
| 34  | 1479           |
| 36  | 1559           |
| 38  | 1639           |
| 40  | 1729           |
| 42  | 1819           |
| 44  | 1909           |
| 46  | 2009           |
| 48  | 2109           |
| 50  | 2209           |

## PHYSICAL PROPERTIES

| Class/ Type                 | Zeotropic blend               |
|-----------------------------|-------------------------------|
| Formula                     | 52% R134a/ 44% R124/ 4% R134a |
| Kind                        | HFC Blend                     |
| Appearance                  | Colourless                    |
| ODP                         | 0                             |
| GWP                         | 3922                          |
| Ashrae Std. 34 Safety Class | A1                            |

| Units                | AHRI Specification         |
|----------------------|----------------------------|
| Molecular Weight     | 97.6 kg/mol                |
| Boiling Point        | - 46.2°C                   |
| Triple Point         | 200°C                      |
| Critical Temperature | 72.2°C                     |
| Critical Pressure    | 36.7 bar                   |
| Critical Density     | 484 kg/m <sup>3</sup>      |
| Critical Volume      | 0.00206 m <sup>3</sup> /kg |

## OUR SERVICES



Gas2Go®  
Refrigerant Management



Gas2Go®  
Gas Doctor Analysis



Gas2Find™  
Leak Detection



Gas2Go® Reclaim &  
Gas2Go® Pumpdown

## YOUR LOCAL HVAC&R REFRIGERANT SPECIALIST



Available from all  
Kirby and Beijer Ref  
branches Australia wide



Quality Control  
to ISO9001



Access to  
Nationwide  
Technical Support



ARCTick  
Reporting