



## R-404A

### GUARANTEED COMMERCIAL SPECIFICATIONS

| STANDARD SPECIFICATIONS             | LIMIT VALUE     |
|-------------------------------------|-----------------|
| Composition:                        |                 |
| - R-143a                            | 52 % (± 1 %)    |
| - R-125                             | 44% (± 2 %)     |
| - R-134a                            | 4 % (±2 %)      |
| Guaranteed purity                   | ≥ 99.5 % weight |
| Water content                       | ≤ 10 ppm weight |
| Acidity (HCl)                       | ≤ 1 ppm weight  |
| Non-condensable content (gas phase) | ≤ 1.5 % volume  |
| High-boiling residues               | ≤ 0.01 % volume |

### MAIN APPLICATIONS

**R-404A** is a "near-azeotropic" HFC blend, designed for commercial, industrial and transport refrigeration applications.

It is traditionally used in new systems such as central refrigerating packs for supermarkets and hypermarkets, refrigerated warehouses, food deep-freezing facilities, and equipment for frozen food preservation and refrigerated trucks.

### OILS

Use a polyol ester (POE) oil.

Check with **Climalife** regarding the viscosity of the oil selected for your application, and the miscibility with the fluid under consideration.

### PRECAUTIONS OF USE

Refer to the Safety Data Sheet\*.

### REGULATION

Use, implementation and recovery of R-404A are governed by European regulation no. 2024/573.

It is also important to refer to the regulations in force in each country in Europe and outside Europe.

\* Find the Safety Data Sheet (SDS) directly on our website [www.climalife.com](http://www.climalife.com)



## R-404A PHYSICAL PROPERTIES

|  |                       |                     |
|--|-----------------------|---------------------|
| Molar mass   | g/mol                 | 97.60               |
| Melting point  | °C                    | N/A                 |
| Boiling point (at 1.013 bar)   | °C                    | -46.23              |
| Temperature glide at 1.013 bar   | K                     | 0.75                |
| Saturated liquid density at 25°C   | kg/m <sup>3</sup>     | 1044                |
| Saturated vapour density at boiling point                                | kg/m <sup>3</sup>     | 5.48                |
| Vapour pressure at:<br>25°C  | bar                   | 12.55               |
| 50°C   | bar                   | 23.11               |
| Critical temperature   | °C                    | 72.0                |
| Critical pressure  | bar                   | 37.29               |
| Critical density   | kg/m <sup>3</sup>     | 487                 |
| Latent heat of vaporisation at boiling point                             | kJ/kg                 | 200.94              |
| Thermal conductivity of liquid at 25°C                                   | W/(m.K)               | 0.064               |
| Thermal conductivity vapour at 1.013 bar                                 | W/(m.K)               | 0.015               |
| Surface tension at 25°C  | 10 <sup>-3</sup> N/m  | 4.49                |
| Solubility of water in the fluid at 25°C                                 | % weight              | 0.055               |
| Viscosity of liquid at 25°   | 10 <sup>-3</sup> Pa-s | 0.128               |
| Viscosity of vapour at 1.013 bar   | 10 <sup>-3</sup> Pa-s | 0.012               |
| Specific heat of liquid at 25°C  | kJ/(kg.K)             | 1.542               |
| Specific heat of vapour at 1.013 bar                                     | kJ/(kg.K)             | 0.877               |
| Cp/Cv ratio at 25°C at 1.013 bar   |                       | 1.118               |
| Flammability in air  |                       | Non-flammable       |
| Flash point  | °C                    | None                |
| Classification NF-EN 378 / ASHRAE<br>PE(S)R                              |                       | A1<br>Category 2    |
| Ozone Depletion Potential  | (R-11 = 1)            | 0                   |
| GWP according to Regulation (EU) 2024/573 (F-Gas III)<br>GWP (AR4 / AR6) | (CO <sub>2</sub> = 1) | 3922<br>3922 - 4728 |

Please contact your distributor or our **Climalife** sales department for more information. In addition, if the refrigeration system you want to install, or are working on, does not appear to be a typical installation, please do not hesitate to contact us for advice and information.

*The information contained in this product sheet is the result of our studies and experience. It is provided in good faith, but should not, under any circumstance, be taken to constitute a guarantee on our part or an assumption of our responsibility. This is particularly the case when third party rights are at stake or in situations where a user of one of our products fails to observe applicable regulations.*



For more information, please visit our website :  
[climalife.com/contact\\_us](http://climalife.com/contact_us)



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