



## 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 % volume
Water content	≤ 10 ppm weight
Chlorine ion test	Negative
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.

This fluid can also replace R-502 in existing applications by following the correct conversion procedure.

### 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

The use and implementation of R-404A are governed by EU Regulation n° 517/2014.

The recovery of R-404A is mandatory under EU Regulation n° 517/2014.

(Refer to the regulations enforced in each country)

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



R-404A

climalife®

## R-404A PHYSICAL PROPERTIES

Molar mass	g/mol	97.6
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-46.57
Temperature glide at 1.013 bar	K	0.79
Saturated liquid density at 25°C	kg/m <sup>3</sup>	1045
Saturated vapour density at boiling point	kg/m <sup>3</sup>	5.48
Vapour pressure at: 25°C	bar	12.6
50°C	bar	23.13
Critical temperature	°C	72.14
Critical pressure	bar	37.35
Critical density	kg/m <sup>3</sup>	488.5
Latent heat of vaporisation at boiling point	kJ/kg	200.1
Thermal conductivity of liquid at 25°C	W/(m.K)	0.06734
Thermal conductivity vapour at 1.013 bar	W/(m.K)	0.0145
Surface tension at 25°C	10 <sup>-3</sup> N/m	4.55
Solubility of water in the fluid at 25°C	% weight	0.055
Viscosity of liquid at 25°	10 <sup>-3</sup> Pa-s	0.1268
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)	1.539
Specific heat of vapour at 1.013 bar	kJ/(kg.K)	0.8752
Cp/Cv ratio at 25°C at 1.013 bar		1.118
Flammability in air		Non-flammable
Flash point	°C	None
NF-EN 378 classification		L1
Ozone Depletion Potential	(R-11 = 1)	0
GWP	(CO <sub>2</sub> = 1)	3922

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:  
[http://www.climalife.dehon.com/contact\\_us](http://www.climalife.dehon.com/contact_us)

