



VIN-FP-552/003

# climalife®

## R-449A

### GUARANTEED COMMERCIAL SPECIFICATION

STANDARD SPECIFICATION *	LIMIT VALUE
Composition	
- R-32	24.3 % (+0.2% -1%)
- R-125	24.7 % (+1% -0.2%)
- R-1234yf	25.3 % (+0.2% -1%)
- R-134a	25.7 % (+1% -0.2%)
Purity	≥ 99.5 % weight
Water content	≤ 10 ppm weight
Total Acidity (HCL)	≤ 1 ppm weight
Non-condensable content (gas phase)	≤ 1.5 % volume

\*data producer

### MAIN APPLICATIONS

R-449A is a non-azeotropic blend containing refrigerants based on hydrofluorocarbons (HFCs) and hydrofluoro-olefins (HFOs), with low GWP. It has been designed to replace R-404A in medium and low temperature commercial and industrial refrigeration applications. It is suitable for supermarkets and hypermarkets including centralised pack systems and chill and frozen cold stores.

It can be used as a replacement for R-22, but must be in accordance with conversion guidelines.

### OILS

Use a polyol ester (POE) oil.

Consult **Climalife** regarding the viscosity of the oil selected for your application and the most suitable for your application.

### PRECAUTIONS OF USE

Refer to the Safety Data Sheet \*.

### REGULATION

The use and implementation of R-448A are governed by the European Regulation No 517/2014.

The recovery of R-448A is mandatory under the European Regulation No 517/2014. (Refer to regulations enforced in each country.)

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



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**R-449A PHYSICAL PROPERTIES**

Molar mass	g/mol	87.21
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-45.72
Temperature glide at 1.013 bar	K	5.72
Saturated liquid density at 25°C	kg/m <sup>3</sup>	1097
Vapour density at boiling point	kg/m <sup>3</sup>	4.758
Vapour pressure at: 25°C 50°C	bar	12.69 23.41
Critical temperature	°C	83.9
Critical pressure	bar	46.62
Critical density	kg/m <sup>3</sup>	480
Latent heat of vaporisation at boiling point	kJ/kg	238.67
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/m.K	0.080 0.014
Surface tension at 25°C	10 <sup>-3</sup> N/m	6.59
Viscosity at 25°C Liquid Vapour at 1.013 bar	10 <sup>-3</sup> Pa.s	0.139 0.012
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	1.550 0.851
Cp/Cv ratio at 25°C at 1.013 bar		1.139
Flammability in air		Non-flammable
Flash point		None
Classification NF-EN 378 ASHRAE		A1 A1
Ozone Depletion Potential		0
GWP IPCC 4th Assessment / 5th Assessment		1397 / 1282

Please contact your distributor or **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)