



## R-452A

### GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATION *	LIMIT VALUE
Composition	
- R-32	11 % (+1.7% -1.7%)
- R-125	59 % (+1.8% -1.8%)
- R-1234yf	30 % (+0.1% -1.0%)
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-452A is a non-azeotropic blend containing hydrofluorocarbons (HFCs and hydrofluoro-olefins (HFOs), designed to replace R-404A in new or existing installations and especially in transport refrigeration.

### OILS

Use a polyol ester (POE) oil.  
Consult **Climalife** regarding the viscosity of the oil selected for your system and the most suitable for your application.

### PRECAUTIONS OF USE

Refer to the Safety Data Sheet \*.

### REGULATION

Use, implementation and recovery of **R-452A** 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-452A PHYSICAL PROPERTIES**

Molar mass	g/mol	103.51
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	- 46.93
Temperature glide at 1.013 bar	K	3.79
Saturated liquid density at 25°C	kg/m <sup>3</sup>	1125
Vapour density at boiling point	kg/m <sup>3</sup>	5.7
Vapour pressure at: 25°C 50°C	bar	13.11 24.02
Critical temperature	°C	75.6
Critical pressure	bar	40.67
Critical density	kg/m <sup>3</sup>	515
Latent heat of vaporisation at boiling point	kJ/kg	195.75
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/m.K	0.067 0.014
Surface tension at 25°C	10 <sup>-3</sup> N/m	5.10
Viscosity at 25°C Liquid Vapour at 1.013 bar	10 <sup>-3</sup> Pa.s	0.136 0.013
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	1.471 0.835
Cp/Cv ratio at 25°C under 1.013 bar		1.117
Flammability in air		Non-flammable
Flash point		None
Classification NF-EN 378 PE(S)R		A1 Category 2
Ozone Depletion Potential		0
GWP according to Regulation (EU) 2024/573 (F-Gas III)		2139
GWP (AR4 / AR6)	(CO <sub>2</sub> = 1)	2140 / 2292

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.*



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