



R-513A

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATION *	LIMIT VALUE
Composition	
- R-1234yf	56.0 % (+1% -0.2%)
- R-134a	44.0 % (+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-513A is an azeotropic blend containing hydrofluorocarbons (HFCs) and hydrofluoro-olefins (HFOs), designed to replace R134a in domestic, commercial and industrial refrigeration applications as well as in air conditioning, liquid cooling and PAC (heat pump) applications. It can be used in direct expansion and flood systems.

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 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 Safety Data Sheets (SDS) directly on our website www.climalife.com

R-513A PHYSICAL PROPERTIES

Molar mass	g/mol	108.43
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-29.58
Temperature glide at 1.013 bar	K	0.10
Saturated liquid density at 25°C	kg/m ³	1134
Vapour density at boiling point	kg/m ³	5.677
Vapour pressure at: 25°C 50°C	bar	7.13 13.77
Critical temperature	°C	97.7
Critical pressure	bar	38.55
Critical density	kg/m ³	490
Latent heat of vaporisation at boiling point	kJ/kg	194.77
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/m.K	0.070 0.014
Solubility of water in the fluid at 25°C	% poids	
Viscosity at 25°C Liquid Vapour at 1.013 bar	10 ⁻³ Pa.s	0.167 0.011
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	1.412 0.881
Cp/Cv ratio at 25°C under 1.013 bar		1.107
Flammability in air		Non-flammable
Flash point		None
Classification NF-EN 378 / ASHRAE PE(S)R		A1 Category 2
Ozone Depletion Potential		0
GWP according to Regulation (EU) 2024/573 (F-Gas III) GWP (AR4 / AR6)	(CO ₂ = 1)	629 613 / 673

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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