



R-454C

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATION *	LIMIT VALUE
Composition	
R-32	21.5 % (+1% -1%)
R-1234yf	78.5 % (+1% -1%)
Purity	≥ 99.5 % weight
Water content	≤ 10 ppm weight
Total Acidity (HCL)	≤ 1 ppm weight
Non condensable content (gas phase)	≤ 1.5 % volume

* producer data

MAIN APPLICATIONS

R-454C is a non-azeotropic blend containing hydrofluorocarbons (HFCs) and hydrofluoroolefins (HFOs) with a GWP < 150.

It can be used in new commercial and industrial low and medium temperature refrigeration systems, in direct expansion for condensing units, cold rooms and stand-alone systems that were usually using R-404A.

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



PHYSICAL PROPERTIES OF R-454C

Molar mass	g/mol	90.8
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-45.56
Temperature glide at 1.013 bar	K	7.81
Saturated liquid density at 25°C	kg/m ³	1042
Vapour density at boiling point	kg/m ³	4.910
Vapour pressure at: 25°C 50°C	bar	11.90 21.64
Critical temperature	°C	85.64
Critical pressure	bar	43.19
Critical density	kg/m ³	462
Latent heat of vaporisation at boiling point	kJ/kg	227.34
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/m.K	0.076 0.014
Surface tension at 25°C	10 ⁻³ N/m	5.68
Viscosity at 25°C Liquid Vapour at 1.013 bar	10 ⁻³ Pa.s	0.129 0.012
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	1.539 0.892
Cp/Cv ratio at 25°C under 1.013 bar		1.126
Flammability in air		Mildly flammable
Flash point		0
Classification NF-EN 378 / ASHRAE PE(S)R		A2L Category 1
Ozone Depletion Potential		0
GWP according to Regulation (EU) 2024/573 (F-Gas III)	(CO ₂ = 1)	146
GWP (AR4 / AR6)		148 / 166

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.

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