



R-134a

1,1,1,2 – TETRAFLUOROETHANE $\text{CF}_3\text{-CH}_2\text{F}$

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Purity	≥ 99.5% weight
Water content	≤ 10 ppm weight
Non-condensable content (gas phase)	≤ 1,5 % volume
High boiling residues	≤ 0.01 % volume
Acidity (HCl)	≤ 1 ppm weight

MAIN APPLICATIONS

R-134a is a hydrofluorocarbon (HFC) which can be used for domestic, commercial and industrial refrigerated applications, as well as for air conditioning, fluid cooling and heat pump applications. R-134a was the fluid of choice of automotive and agricultural air-conditioning system manufacturers. The fluid used in new automotive and agricultural air conditioning installations is now R-1234yf.

R-134a can also replace R-12 in existing systems by following the correct conversion procedure.

OILS

Use a polyol ester (POE).

Check with **Climalife** regarding the viscosity of the oil selected for your application and the miscibility with the fluid under consideration.

For automotive air conditioning, please refer to the constructor's advice: PAG oils are generally the recommended type.

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-134a PHYSICAL PROPERTIES

Molar mass	g/mol	102,03
Melting point	°C	- 103,3
Boiling point (at 1.013 bar)	°C	- 26,08
Temperature glide at 1.013 bar	K	0
Saturated liquid density at 25°C	kg/m ³	1207
Saturated vapour density at boiling point	kg/m ³	5,257
Vapour pressure at :		
25°C	bar	6,654
50°C	bar	13,18
Critical temperature	°C	101,1
Critical pressure	bar	40,59
Critical density	kg/m ³	512
Latent heat of vapourisation at boiling point	kJ/kg	217
Thermal conductivity of liquid at 25°C	W/(m.K)	0,081
Thermal conductivity of vapour at 1.013 bar	W/(m.K)	0,013
Surface tension at 25°C	10 ⁻³ N/m	8,03
Viscosity of liquid at 25°C	10 ⁻³ Pa-s	0,195
Viscosity of vapour at 1.013 bar	10 ⁻³ Pa-s	0,012
Specific heat of liquid at 25°C	kJ/(kg.K)	1,425
Specific heat of vapour at 1.013 bar	kJ/(kg.K)	0,8512
Cp/Cv ratio at 25°C at 1.013 bar		1,120
Flammability in air		Non-flammable
Flash point	°C	None
Classification NF-EN 378 / ASHRAE PE(S)R		A1 Category 2
Ozone Depletion Potential	(R11 = 1)	0
GWP according to Regulation (EU) 2024/573 (F-Gas III)		1430
GWP (AR4 / AR6)	(CO ₂ = 1)	1430 / 1530

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.

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