



R-452B

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATION *	LIMIT VALUE
Composition	
- R-32	67 % (± 2.0%)
- R-125	7 % (± 1.5%)
- R-1234yf	26 % (± 2.0%)
Purity	≥ 99.5 % weight
Water content	≤ 10 ppm weight
Chlorine ion test (silver nitrate test)	Negative
Total Acidity (HCL)	≤ 1 ppm weight
Non-condensable content (gas phase)	≤ 1.5 % volume

* data producer

MAIN APPLICATIONS

R-452B is a non azeotropic blend containing refrigerants from the hydrofluoro-olefin (HFO) family, designed to replace R-410A in new installations, particularly in heat pumps, commercial rooftop air conditioners, VRF systems and medium pressure liquid coolers (air/water chillers).

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-452B** 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


R-452B PHYSICAL PROPERTIES

Molar mass	g/mol	63.5
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	- 50.67
Temperature glide at 1.013 bar	K	0.86
Saturated liquid density at 25°C	kg/m ³	993
Vapour density at boiling point	kg/m ³	3.623
Vapour pressure at: 25°C 50°C	bar	15.86 29.31
Critical temperature	°C	79.68
Critical pressure	bar	54.98
Critical density	kg/m ³	439
Latent heat of vaporisation at boiling point	kJ/kg	311.78
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/m.K	0.103 0.013
Surface tension at 25°C	10 ⁻³ N/m	6.69
Solubility of water in the fluid at 25°C	% weight	/
Viscosity at 25°C Liquid Vapour at 1.013 bar	10 ⁻³ Pa.s	0.115 0.013
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	1.790 0.859
Cp/Cv ratio at 25°C under 1.013 bar		1.196
Flammability in air		Mildly flammable
Lower flammability limit		0.310 kg/m ³
Flash point		None
Classification NF-EN 378 PE(S)R		A2L Category 1
Ozone Depletion Potential		0
GWP according to Regulation (EU) 2024/573 (F-Gas III)		697
GWP (AR4 / AR6)		698 / 779

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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