



## 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

The use and implementation of R-452B are governed by the European Regulation n° 517/2014.

The recovery of R-452B is mandatory under the European Regulation n° 517/2014.  
(Refer to regulations enforced in each country.)

\*Find the Safety Data Sheets (SDS) directly on our website [www.climalife.dehon.com](http://www.climalife.dehon.com)



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### 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 <sup>3</sup>	993
Vapour density at boiling point	kg/m <sup>3</sup>	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 <sup>3</sup>	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 <sup>-3</sup> 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 <sup>-3</sup> 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 <sup>3</sup>
Flash point		None
Classification NF-EN 378 ASHRAE		A2L A2L
Ozone Depletion Potential		0
GWP 4th Assessment 5th Assessment		698 675

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.

For more information, please visit our website :



[http://www.climalife.dehon.com/contact\\_us](http://www.climalife.dehon.com/contact_us)

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