



# climalife®

Ref. : FF.96 /05.15/V2/ EN

## R-1233zd

Trans-1-chloro-3,3,3-trifluoroprop-1-ène

### GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATION	LIMIT VALUE
Purity	≥ 99.5 % weight
Water content	≤ 20 ppm weight
Chlorine ion test (silver nitrate test)	Negative
Total Acidity (HCL)	≤ 1 ppm weight
Non-condensable content (gas phase)	N/A

### MAIN APPLICATIONS

R-1233zd is a fluorinated gas from the HFO family. This product has a very low GWP and low pressure. It is suitable for new industrial air conditioning applications and the cooling of buildings where cooling water or intermediate fluids are used in large systems with centrifugal compressors (one or more stages) where R-123 may have been used in the past.

### OILS

Use a polyol ester (POE) oil.

Consult **Climalife** regarding the viscosity of the oil selected for your application and the most suitable for your application.

### PRECAUTIONS OF USE

Refer to the Safety Data Sheet\*.

### REGULATION

The use and implementation of R-1233ZD are governed by the European Regulation No 517/2014 .  
The recovery of R-1233ZD is mandatory under the European Regulation No 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)*



R-1233zd

climalife®

## R-1233zd PHYSICAL PROPERTIES

Molar mass	g/mol	130.5
Melting point	°C	-78
Boiling point (at 1.013 bar)	°C	18.31
Saturated liquid density at 25°C	kg/m <sup>3</sup>	1263
Vapour density at boiling point	kg/m <sup>3</sup>	5.699
Vapour pressure at: 25°C	bar	1.3
50°C	bar	2.93
Critical temperature	°C	165.6
Critical pressure	bar	35.73
Critical density	kg/m <sup>3</sup>	478.92
Latent heat of vaporisation at boiling point	kJ/kg	195.35
Thermal conductivity at 25°C Liquid	W/m.K	0.077
Vapour at 1.013 bar	W/m.K	0.01
Surface tension at 25°C	10 <sup>-3</sup> N/m	12.57
Solubility of water in the fluid at 25°C	% weight	/
Viscosity at 25°C Liquid	10 <sup>-3</sup> Pa.s	0.469
Vapour at 1.013 bar	10 <sup>-3</sup> Pa.s	0.011
Specific heat at 25°C Liquid	kJ/(kg.K)	1.243
Vapour at 1.013 bar	kJ/(kg.K)	0.825
Cp/Cv ratio at 25°C at 1.013 bar		1.104
Flammability in air		Non-flammable
Flash point		None
Classification NF-EN 378 ASHRAE		Ongoing A1
Ozone Depletion Potential		0
GWP 4th Assessment		4.5
5th Assessment		1

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)

Copyright© 2014 - dehon service SA – All rights reserved.