



R-409A

(ZEOTROPIC MIXTURE)

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Composition:	
- R-22	60 % (± 2 %)
- R-124	25 % (± 2 %)
- R-142b	15 % (± 1 %)
Guaranteed purity	≥ 99 % weight
Water content	≤ 20 ppm weight
Chlorine ion test (silver nitrate test)	negative
Acidity (HCl)	≤ 5 ppm weight
Non-condensable content (gas phase)	≤ 1.5% volume

MAIN APPLICATIONS

R-409A is a HCFC type "zeotropic" transition mixture of usage regulated over time (Montreal Protocol), designed for R-12 (CFC) current uses in domestic, commercial, and industrial cooling domains.

It is used preferably for fluid conversions aiming at eliminating R-12, in order to protect the stratospheric ozone layer.

It should not be used for automotive air-conditioning conversion.

OILS

Use an alkylbenzene (AB), mineral (MN) or even polyol ester (POE) oil in agreement with the compressor manufacturer.

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

PRECAUTIONS OF USE

Refer to the Safety Data Sheet*.

REGULATION

Using **R-409A** is governed by European regulation n° 2037/2000 of June 29, 2000:

- using **R-409A** is completely prohibited in new setup as of 12.31.2003
- using virgin **R-409A** is prohibited for maintenance and service as of 01.01.2010
- using **R-409A**, even recycled, is completely prohibited as of 01.01.2015.

In Europe, **R-409A** recovery is mandatory as per regulation n° 842/2006.

(Refer to regulations enforced in each country).

* Find the Safety Data Sheet (SDS) directly on our website www.climalife.dehon.com



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R-409A PHYSICO-CHEMICAL PROPERTIES

Molar mass	g/mol	97.43
Melting point	°C	N/A
Boiling point (under 1.013 bar)	°C	-35.44
Temperature drift under 1.013 bar	K	7.89
Saturated fluid density at 25°C	kg/m ³	1205
Saturated vapour density at boiling point	kg/m ³	5.013
Vapour pressure at: 25°C 50°C	bar	8.326 15.54
Critical temperature	°C	107
Critical pressure	bar	46.93
Critical density	kg/m ³	507.5
Latent heat of vaporisation at boiling point	kJ/kg	220.2
Thermal conductivity at 25°C		
Liquid		0.07795
Vapour under 1.013 bar	W/(m.K)	0.01075
Surface tension at 25°C	10 ⁻³ N/m	9.13
Viscosity at 25°C		
Liquid		0.182
Vapour under 1.013 bar	10 ⁻³ Pa-s	0.01206
Specific heat at 25°C		
Liquid	kJ/(kg.K)	1.231
Vapour under 1.013 bar	kJ/(kg.K)	0.7095
Cp/Cv ratio at 25°C under 1.013 bar		1.151
Flammability in air		non-flammable
Flashing point		none
NF-EN 378 classification		L1
Potential effect on ozone	(R-11 = 1)	0.033

Please contact your distributor or **Climalife** sales department for more information. Also, if the refrigerated system you want to install does not appear to you as a typical case, we are at your service to provide opinions and advices.

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