VIN-FP-203/007

R-409A

(ZEOTROPIC MIXTURE)

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Composition: - R-22 - R-124 - R-142b	 60 % (± 2 %) 25 % (± 2 %) 15 % (± 1 %)
Guaranteed purity	≥ 99 % weight
Water content	≤ 20 ppm weight
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***

R-409A PHYSICOCHEMICAL PROPERTIES

Molar mass	g/mol	97.43
Melting point	°C	N/A
Boiling point (under 1.013 bar)	°C	-34,45
Temperature drift under 1.013 bar	K	8,49
Saturated fluid density at 25°C	kg/m^3	1214
Saturated vapour density at boiling point	kg/m^3	4,979
Vapour pressure at: 25°C 50°C	bar	 8,02 14,99
Critical temperature Critical pressure Critical density	°C bar kg/m^3	109,27 46,99 509
Latent heat of vaporisation at boiling point	kJ/kg	222,52
Thermal conductivity at 25°C Liquid Vapour under 1.013 bar	W/(m.K)	 0,078 0,010
Surface tension at 25°C	10^{-3} N/m	9,50
Viscosity at 25°C Liquid Vapour under 1.013 bar	10^{-3} Pa-s	 0,188 0,012
Specific heat at 25°C Liquid Vapour under 1.013 bar	kJ/(kg.K) kJ/(kg.K)	 1,228 0.710
Cp/Cv ratio at 25°C under 1.013 bar		1.151
Flammability in air		non-flammable
Flashing point		none
NF-EN 378 classification ASHRAE		A1 A1
Potential effect on ozone	(R-11 = 1)	0.033
GWP 4th Assessment /5th Assessment		1585/1485

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.