

# R-417A

## GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Composition :	
R-125	46.6 % ( $\pm 1.1$ )
R-134a	50 % ( $\pm 1.0$ )
R-600	3.4 % (-0.4/+ 0.1)
Purity	$\geq 99,5$ % weight
Water content	$\leq 10$ ppm weight
Acidity	$\leq 1$ ppm weight
Non-condensable content (gas phase)	$\leq 1.5$ % volume
High boiling residues	$\leq 0.01$ % volume

## MAIN APPLICATIONS

R-417A is a non-azeotropic HFC blend intended as a “direct replacement” for R-22 (HCFC) in direct expansion small air-conditioning applications.

## OILS

Use a mineral oil (MN), alkylbenzene (AB), or polyol ester (POE).

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

## PRECAUTIONS OF USE

Request Safety Data Sheet\*

website [www.marsisltd.com](http://www.marsisltd.com)

## R-417A PHYSICAL PROPERTIES

Molar mass	g/mol	106.75
Melting point	°C	N/A
Boiling point (at 1.013 bar)	°C	-39.07
Temperature glide at 1.013 bar	K	4.99
Saturated liquid density at 25°C	kg/m <sup>3</sup>	1151
Saturated vapour density at boiling point	kg/m <sup>3</sup>	5.680
Vapour pressure at:		
25°C	bar	9.84
50°C	bar	18.44
Critical temperature	°C	87.1
Critical pressure	bar	40.35
Critical density	kg/m <sup>3</sup>	521
Latent heat of vaporisation at boiling point	kJ/kg	200.75
Thermal conductivity of liquid at 25°C	W/(m.K)	0.071
Thermal conductivity of vapour at 1.013 bar	W/(m.K)	0.014
Surface tension at 25°C	10 <sup>-3</sup> N/m	6.48
Viscosity of liquid at 25°C	10 <sup>-3</sup> Pa-s	0.165
Viscosity of vapour at 1.013 bar	10 <sup>-3</sup> Pa-s	0.012
Specific heat of liquid at 25°C	kJ/(kg.K)	1.444
Specific heat of vapour at 1.013 bar	kJ/(kg.K)	0.855
Cp/Cv ratio at 25°C at 1.013 bar		1.111
Flammability in air		non-flammable
Flash point	°C	none
Classification NF-EN 378 / ASHRAE PE(S)R		A1 Category 2
Ozone Depletion Potential	(R-11 = 1)	0
GWP according to Regulation (EU) 2024/573 (F-Gas III)	(CO <sub>2</sub> = 1)	2346
GWP (AR4 / AR6)		2346 / 2508

For more information, please contact our Marsis sales department.