



R-417A (FREON® MO59)

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 | ≤ 10 ppm weight |
| Chloride ion test | Negative |
| Acidity | ≤ 1 ppm weight |
| Non-condensable content (gas phase) | $\leq 1,5$ % volume |
| High boiling residues | ≤ 0.01 % volume |

MAIN APPLICATIONS

R-417A (FREON® MO59) is a zeotropic HFC blend intended as a “direct replacement” for R-22 (HCFC) in direct expansion small air-conditioning applications.

Note : For water chiller applications R-422D (ISCEON® MO29) is recommended.

OILS

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

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

The use and implementation of R-417A are governed by EU Regulation n° 517/2014.

The recovery of R-417A is mandatory under EU Regulation n° 517/2014.

(Refer to regulations enforced in each country)

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



R-417A

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R-417A PHYSICAL PROPERTIES

| | | |
|--|-----------------------|---------------|
| Molar mass | g/mol | 106.7 |
| Melting point | °C | N/A |
| Boiling point (at 1.013 bar) | °C | -39.01 |
| Temperature glide at 1.013 bar | K | 5.0 |
| Saturated liquid density at 25°C | kg/m ³ | 1149 |
| Saturated vapour density at boiling point | kg/m ³ | 4.411 |
| Vapour pressure at: 25°C | bar | 9.85 |
| 50°C | bar | 18.10 |
| Critical temperature | °C | 87.4 |
| Critical pressure | bar | 40.36 |
| Critical density | kg/m ³ | 520 |
| Latent heat of vaporisation at boiling point | kJ/kg | 197.9 |
| Thermal conductivity of liquid at 25°C | W/(m.K) | 0.0714 |
| Thermal conductivity of vapour at 1.013 bar | W/(m.K) | 0.0143 |
| Surface tension at 25°C | 10 ⁻³ N/m | 6.75 |
| Viscosity of liquid at 25°C | 10 ⁻³ Pa-s | 0.167 |
| Viscosity of vapour at 1.013 bar | 10 ⁻³ Pa-s | 0.0122 |
| Specific heat of liquid at 25°C | kJ/(kg.K) | 1.437 |
| Specific heat of vapour at 1.013 bar | kJ/(kg.K) | 0.856 |
| Cp/Cv ratio at 25°C at 1.013 bar | | 1.111 |
| Flammability in air | | non-flammable |
| Flash point | °C | none |
| NF-EN 378 classification | | L1 |
| Ozone Depletion Potential | (R-11 = 1) | 0 |
| GWP | (CO ₂ = 1) | 2346 |

Please contact your distributor or our **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.

Les renseignements contenus dans cette fiche produit sont les résultats de nos études et de notre expérience. Ils sont donnés de bonne foi, mais ne peuvent en aucun cas constituer de notre part une garantie, ni engager notre responsabilité, particulièrement en cas d'atteinte aux droits des tiers, ni en cas de manquement des utilisateurs de nos produits aux réglementations en vigueur les concernant.

For more information, please visit our website:



http://www.climalife.dehon.com/contact_us