



R-600a

Isobutane C₄H₁₀

GUARANTEED COMMERCIAL SPECIFICATIONS

STANDARD SPECIFICATIONS	LIMIT VALUE
Purity*	≥ 99.5 % weight*
Total Polyolefins C3 – C4 – C5	≤ 0.05 % weight
Other volatile impurities	≤ 0.5 % weight
High boiling residue	≤ 0.01 % weight
Incondensable content (gas phase)	≤ 1.5 % volume at 25°C
Water content	≤ 10 mg/kg
Sulphur odour	None
Acidity (HCl)	≤ 1 ppm weight
Particles / Solids	Clear

* of which 2% other saturated C3 - C4 hydrocarbons allowed

MAIN APPLICATIONS

High purity Iso-butane (R-600a) is required for refrigeration applications. It is a hydrocarbon (HC) which is mainly used in domestic refrigeration applications.

OILS

Use a mineral oil (MO), alkylbenzene (AB) or poly alpha olefin (PAO).

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

R600a is classified as an extremely flammable product (A3).

Refer to the ERP of 14th February 2000 published in the Official Journal of 21 March 2000.

(Refer to regulations enforced in each country)

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



R-600a PHYSICAL PROPERTIES

Molar Mass	g/mol	58.12
Melting point	°C	-159.38
Boiling point (at 1.013 bar)	°C	- 11.76
Temperature drop at 1.013 bar	K	0
Density of the saturated liquid at 25°C	kg/m ³	551
Vapour density at boiling point	kg/m ³	2.826
Vapour pressure at : 25°C 50°C	bar	3.51 6.85
Critical Temperature	°C	134.7
Critical Pressure	bar	36.29
Critical Density	kg/m ³	225
Latent heat of vaporisation at boiling point	kJ/kg	365.11
Thermal conductivity at 25°C Liquid Vapour at 1.013 bar	W/(m.K)	0.089 0.017
Surface tension at 25°C	10 ⁻³ N/m	10.00
Viscositt at 25°C Liquid Vapour at 1.013 bar	10 ⁻³ Pa.s	0.151 0.007
Specific heat at 25°C Liquid Vapour at 1.013 bar	kJ/(kg.K)	2.430 1.692
Cp/Cv ratio at 25°C at 1.013 bar		1.105
Flammability in air		Non flammable
Flash point	°C	-87
Classification NF-EN 378 ASHRAE 34		A3 A3
Ozone Depletion Potential	(R-11=1)	0
GWP according to IPCC-AR4/IPCC-AR5	(CO ₂ =1)	3/3

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.

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:
climalife.com/contact_us



web