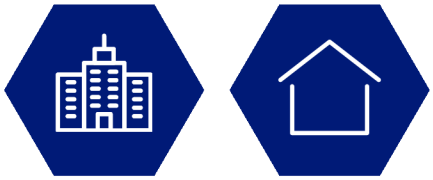
R600a Isobutane

Technical Data Sheet | Refrigerant

R600a (Isobutane) is a refrigerant-grade hydrocarbon commonly used as a replacement for R12 and R134a in a variety of refrigeration applications. With its low global warming potential (GWP), R600a is becoming increasingly popular and is now the refrigerant of choice for many domestic and light commercial refrigeration systems, including fridges and freezers, drink dispensers, and stand-alone display units.

Key Applications



Commercial Refrigeration

Domestic Refrigeration

Features and Benefits

- Excellent thermodynamic properties resulting in high energy efficiency.
- Superior energy efficiency.
- Significantly reduced charge weights.
- Low GWP of 3.
- Flammable and non-toxic with a safety classification of A3.
- Compressors can be charged with a variety of oils; contact the compressor manufacturer for more information.

Physical Properties

Refrigerant Type: Hydrocarbon
Chemical Name: Isobutane
Molecular Weight: 58.12 g/mol
Boiling Point: -11.8°C
Critical Temperature: 134.7 °C
Critical Pressure: 3.64 MPa
Density Liquid at 20°C: 0.557
ASHRAE Safety Classification: A3
Ozone Depleting Potential: 0
Global Warming Potential (AR5): 3

A-GAS®
TOGETHER WE CAN

Pack Sizes

- 420 Grams disposable can

Usage Instructions

- Refrigerant can be charged from either the liquid or vapour phase.
- Not for use as a retrofit replacement and requires a specific R600a compressor.
- Due to its flammable nature, R600a requires different charging and recovery procedures.
- R600a adaptors are available if required.
- The 420g can is a non-returnable cylinder and does not need to be returned to an A-Gas wholesale partner. Please dispose of non-returnable cylinders in an environmentally responsible manner.

IMPORTANT: Hydrocarbon refrigerants are flammable and must be handled safely and responsibly by properly qualified, trained, and experienced technicians. All relevant regulations and standards must be followed at all times.

Product Specifications

Properties	AHRI Standard 700-2019 Specifications
Purity, % w	≥ 99.5
Non-Condensable Gases @ 25°C, %v	≤ 1.5
Moisture, ppmw	≤ 10
Acidity (as HCl), ppmw	≤ 1
High Boiling Residue, %w	≤ 0.01
Particulates/Solids	Visually clean

Pressure Temperature Chart

Temperature °C	Pressure (kPa)
-48	-83
-46	-80
-44	-78
-42	-75
-40	-73
-38	-70
-36	-66
-34	-63
-32	-59
-30	-55
-28	-50
-26	-45
-24	-40
-22	-35
-20	-29
-18	-23
-16	-16
-14	-9
-12	-1
-10	7
-8	16
-6	25
-4	35
-2	45
0	56
2	67
4	79
6	92
8	105
10	119
12	134
14	150
16	166
18	183
20	201
22	220
24	239
26	260
28	281
30	303
32	327
34	351
36	376
38	403
40	430
42	458
44	488
46	519
48	551
50	584

A-Gas (Australia) Pty Ltd
9 - 11 Oxford Road, Laverton North
Victoria 3026 Australia
FREECALL **1800 002 427**
agas.com/au
A-Gas AU11734

A-Gas (New Zealand) Ltd
68 Rangi Road, Takanini
Auckland 2105, New Zealand
FREECALL **0800 992 427**
agas.com/nz

A-GAS® TOGETHER WE CAN