REFRIGERANT FACT SHEET
R717 (AMMONIA)

CHARACTERISTICS

Ammonia is widely accepted as the most efficient and environmentally friendly refrigerant.

R717 has been used as a refrigerant for over 100 years due to the excellent thermodynamic properties and cost efficiency.

R717 is highly toxic, colourless and has a strong overpowering odour.

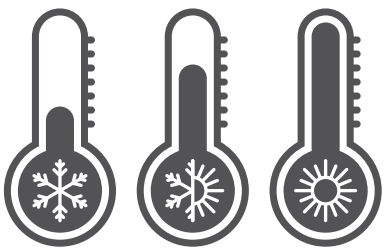
PERFORMANCE

- Suitable replacement for R22, R134a, R404A and R744 applications
- R717 is suitable for new systems specifically designed to meet the standards of ammonia
- R717 is not suitable for retrofit for any system containing copper
- Low environmental impact
- Risk minimisation steps must be taken when using R717

APPLICATIONS

Low, medium and high temperature applications including:

- Industrial refrigeration/ cold storage
- Industrial/ commercial air conditioning DX chillers
- Cascade systems
- Ice rinks



PHYSICAL ATTRIBUTES

ODP: 0

GWP: 0

Class/ Type: Inorganic compound (B2L)

Refrigerant Kind: Natural refrigerant

Oil Type: Consult OEM

Glide: N/A

FEATURES

- Zero ODP and GWP
- Wide range of operating temperatures and applications
- B2L meaning mildly flammable and toxic
- Corrosive
- Strong recognisable odour
- Dissolves readily in water
- Highly versatile
- Liquid or vapour charge
- Leak testing must be done using a sulphur stick or soap solution

THERMODYNAMIC PERFORMANCE

- Excellent thermodynamic properties
- Highest refrigeration capacity
- R717 has a low boiling point
- High energy efficiently

PRODUCT PART NUMBERS

- **0717034** 34kg Cylinder
- **0717056** 56kg Cylinder

For safety, handling and storage guidelines please refer to the MSDS (available on Chemwatch)

Gas2Go®

PRESSURE TEMPERATURE CHART

Temp C°	Pressure (kPa)
-44	-43
-42	-38
-40	-29
-38	-20
-36	-13
-34	-2
-32	7
-30	19
-28	32
-26	43
-24	59
-22	71
-20	89
-18	109
-16	124
-14	147
-12	164
-10	190
-8	217
-6	239
-4	269
-2	294
0	328
2	365
4	395
6	435
8	468
10	514
12	562
14	603
16	655
18	697
20	756
22	819
24	868
26	973
28	998
30	1066
32	1137
34	1211
36	1289
38	1370
40	1454
42	1542
44	1634
46	1730
48	1829
50	1933

PHYSICAL PROPERTIES

Class/ Type	Inorganic compound
Formula	100% R717
Kind	Natural Refrigerant
Appearance	Colourless
ODP	0
GWP	0
ASHRAE Std. 34 Safety Class	B2L

Units	AHRI Specification
Molecular Weight	17 g/mol
Boiling Point	– 2.22°C
Critical Temperature	132.4°C
Critical Pressure	112.8 bar
Critical Density	489 kg/m^3
Vapour Density at Boiling Point	0.7692 kg/m^3
Liquid Density at 0°C	0.7625 kg/m^3
Vapour Pressure at 21°C	888.0 kPa

RFS717-030519

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