

Refrigerant R-22

Non-flammable, ozone depleting refrigerant.

Overview

Daikin R-22 is characterized by low toxicity, high efficiency, and excellent thermal stability. It is a legacy refrigerant used in medium and low temperature refrigeration, commercial air conditioning, domestic air conditioning and heat pumps, automotive and many other applications.

R-22 is a material regulated for Stratospheric Ozone Protection under Title VI of the Clean Air Act. Production of new R-22 as a refrigerant for use in systems will cease in 2020 and is currently in phase down. R-22 use is unrestricted for service and maintenance purposes. Please refer to US EPA SNAP for most up to date rulings and decisions (<https://www.epa.gov/snap>).

| | R-22 |
|---|--------------------------|
| Chemical Name | Chlorodifluoromethane |
| Chemical Formula | CHClF ₂ |
| Liquid Density (at 77°F) | 74.3 lbm/ft ³ |
| Vapor Density (at 77°F) | 2.8 lbm/ft ³ |
| Boiling Point (at 1atm) | -41.5°F |
| Critical Temperature | 205.1°F |
| Critical Pressure | 723.7psi |
| Saturated Vapor Pressure (at 77°F) | 151.4psi |
| Ozone Depletion Potential (ODP)* | 0.055 |
| Global Warming Potential (GWP)** | 1810 / 1760 |
| Temperature Glide (Evaporation)*** | 0°F |
| ASHRAE Classification Refrigerant Type | Class A1 |
| Appearance | Colorless |
| Flammability | Nonflammabe |

* Montreal Protocol reporting values

** IPCC Fourth Assessment Report / Fifth Assessment Report

*** 105F Ambient; 25F Evaporating; 10F SH and SC; Compressor Eff 70%

Pressure Temperature Chart

| Temp (°F) | R-22 |
|-----------|----------------------------|
| | Bubble/Dew Pressure (psig) |
| -40 | 0.6 |
| -35 | 2.6 |
| -30 | 4.9 |
| -25 | 7.4 |
| -20 | 10.2 |
| -15 | 13.2 |
| -10 | 16.5 |
| -5 | 20.1 |
| 0 | 24.0 |
| 5 | 28.3 |
| 10 | 32.8 |
| 15 | 37.8 |
| 20 | 43.1 |
| 25 | 48.8 |
| 30 | 55.0 |
| 35 | 61.5 |
| 40 | 68.6 |
| 45 | 76.1 |
| 50 | 84.1 |
| 55 | 92.6 |
| 60 | 101.6 |
| 65 | 111.2 |
| 70 | 121.4 |
| 75 | 132.2 |
| 80 | 143.6 |
| 85 | 155.7 |
| 90 | 168.4 |
| 95 | 181.8 |
| 100 | 195.9 |
| 105 | 210.8 |
| 110 | 226.4 |
| 115 | 242.8 |
| 120 | 260.0 |
| 125 | 278.0 |
| 130 | 296.9 |
| 135 | 316.7 |
| 140 | 337.4 |

Handling Method and Safety Information

R-22 is a liquefied high-pressure gas. Please refer to the Safety Data Sheet (SDS) before use.

Packaging Specifications

R-22 is available in 30lb disposable and 125lb and 1000lb returnable containers.

Compatibility Information

R-22 is compatible with most existing HCFC system components. Specifically existing Mineral Oil (MO), filter dryers, gaskets, elastomers, and plastics. Please contact the component manufacturers for specific recommendations.

Additional Information

Additional field trial, retrofit guides and technical data are available upon request and at www.daikin-america.com.