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## HCFC-22 (R22)

### GENERAL DESCRIPTION

**HCFC-22**, or **R-22**. It is commonly used as a propellant and refrigerant. These applications are being phased out in developed countries due to the compound's ozone depletion potential (ODP) and high global warming potential (GWP), although global use of R-22 continues to increase because of high demand in developing countries. R-22 is a versatile intermediate in industrial organofluorine chemistry, e.g. as a precursor to tetrafluoroethylene. R-22 cylinders are colored light green.

Before R22 often used as an alternative to the highly ozone-depleting CFC-11 and CFC-12, because of its relatively low ozone depletion potential of 0.055. However, even this lower ozone depletion potential is no longer considered acceptable. Now R22 has been phased out in European and US. And in other developing countries, it will be phased out in the near future. It is replaced by other refrigerants with lower ozone depletion potential such as R290a, R134a, R410A, R438A and so on.

### SPECIFICATIONS

Appearance :	Colourless and not turbid
Purity, %	≥99.8%
Moisture%	≤0.005
Evaporation residue %	≤0.01
Acidity %	≤0.0001
VINYLDENECHLORIDE +DICHLOROACETYLENE%	≤0.02

### PROPERTIES

#### HCFC-22

CAS Number: 75-45-6

Colour: Colourless

Odor: Slightly ethereal

Appearance: Colorless gas

Chemical name: CHLORODIFLUOROMETHANE

Chemical formula: CHClF<sub>2</sub>

Boiling point: -40.80°C @ 101,325 kPa

Vapor Density 3.03 at 25 °C (Air = 1)

Liquid Density 1.194 g/cm<sup>3</sup> at 25°C (77 deg F)

Vapour pressure: 1040 kPa @ 21°C

Ozone depletion potential: 0.055

Solubility in Water: 0.3 WT % at 25°C (77 deg F)