

# Halogenates Chlorofluorocarbons / HCFCs

Partially halogenated chlorofluorocarbons (HCFCs) are used as refrigerants, propellants or solvents. HCFCs are manmade substances that are chemically stable, non-flammable, odourless and tasteless. They are hydrocarbons whose hydrogen atoms have been partially replaced with the halogens fluorine and chlorine. Compared to CFCs (e.g. R 12 ODP = 1), they are less stable and have both a lower ozone depletion potential (ODP = 0,02-0,06) and a lower direct global warming potential (GWP = 76-12,100). In Europe, HCFCs are not permissible as refrigerants in new plants.

Examples: R 22, R 123, R 124, R 141b, R 142b

## Characteristics:

ODP	1
GWP	8,100
Molecular weight	86.47 g/mol
Boiling point (1.013 bar)	-40.8 °C
Critical temperature	96.15 °C
Critical pressure	49.88 bar
Critical density	513 kg/m <sup>3</sup>
Vapor pressure at 25 °C	10.44 bar