

FORANE® 134a

CAS No. 811-97-2

1,1,1,2-Tetrafluoroethane (CH₂FCF₃)

GENERAL DESCRIPTION

A zero ODP HFC used alone (as an R-12 replacement) or as a component in blends (especially those designed to replace R-22 and R-502). Some current applications include automotive A/C, positive pressure centrifugal chillers, medium to high temperature commercial refrigeration, refrigeration appliances, and transport refrigeration.

SPECIFICATIONS

(Meets or exceeds AHRI 700-2017 Specifications)

	Maximum (unless otherwise noted)
1,1,1,2-Tetrafluoroethane, wt %	99.8 (minimum)
Air and Other Non-condensable Gases, vol %	1.5
Volatile Impurities, wt. %	0.5
High Boiling Residue, vol %	0.01
Moisture (H ₂ O), ppm by wt	10
Acidity, ppm by wt (as HCl)	1.0
Chloride, no visible turbidity (indicates about 3 ppm)	Pass
Particulates / solids (visually clean to pass)	Pass

PROPERTIES

Appearance	Colorless liquefied gas
Odor	Faint, ether-like odor
Molecular Mass (g/mole)	102.03
Boiling Point at 1 atm	-15.0°F / -26.1°C
Flammable Limits (LFL, UFL), vol % (1 atm, 25°C)	NA / NA
ANSI/ASHRAE Standard 34 Safety Group Classification	A1
Ozone Depletion Potential (ODP) (CFC-11 = 1.0)	0
Global Warming Potential (GWP ¹) (CO ₂ = 1.0)	1,300

(1) GWP according to IPCC AR5. Values for 100-year time horizon

TEMPERATURE

	50°F	70°F	105°F	115°F	130°F
Vapor Pressure, psia ⁽²⁾	60.1	85.8	149.6	173.3	213.4
Liquid Density, lb./ft ³⁽²⁾	78.7	76.2	71.4	69.9	67.5

(2) Generated using NIST REFPROP Version 9.1

Forane® Customer Service: 1-800-245-5858

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FORANE®
REFRIGERANTS
BY ARKEMA

Arkema Inc. (Americas)
900 First Avenue
King of Prussia, PA 19406
Tel.: +1 610 205 7000
Fax: +1 610 205 7497
arkema-americas.com

Headquarters: Arkema France
420, rue d'Estienne d'Orves
92705 Colombes Cedex – France
Tel.: +33 (0)1 49 00 80 80
Fax: +33 (0)1 49 00 83 96
arkema.com