

FORANE® 404A

CAS No. 354-33-6 (HFC-125) / 420-46-2
(HFC-143a) / 811-97-2 (HFC-134a)

Pentafluoroethane (HFC-125) / 1,1,1-Trifluoroethane (HFC-143a) / 1,1,1,2-Tetrafluoroethane (HFC-134a)

GENERAL DESCRIPTION

A zero ODP near azeotropic HFC refrigerant blend, which has applications in medium to low temperature refrigeration applications. Its properties are similar to those of R-502.

SPECIFICATIONS

(Meets AHRI 700-2017 Specifications)

	Maximum (unless otherwise noted)	Tolerance
Pentafluoroethane (HFC-125), wt %	44.0 (nominal)	± 2.0%
1,1,1-Trifluoroethane (HFC-143a), wt %	52.0 (nominal)	± 1.0%
1,1,1,2-Tetrafluoroethane (HFC-134a), wt %	4.0 (nominal)	± 2.0%
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 of blend)	97.60
Bubble Point at 1 atm	-51.2°F / -46.2°C
Dew Point at 1 atm	-49.9°F / -45.5°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)	3,943

(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⁾	118.3	162.1	266.7	304.3	368.2
Liquid Density, lb./ft ³ (2)	69.3	66.3	60.0	57.8	54.0

(2) Generated using NIST REFPROP Version 9.1

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

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