



Arkema Inc.  
900 First Avenue  
King of Prussia, PA 19406

## FORANE® 404A

### 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 ranges. Its properties are similar to those of R-502.

#### SPECIFICATIONS

##### (Meets AHRI 700-2011 Specifications)

	Maximum (unless otherwise indicated)	Tolerance
Pentafluoroethane (HFC-125), wt %	44.0 (nominal)	± 2%
1,1,1-Trifluoroethane (HFC-143a), wt %	52.0 (nominal)	± 1%
1,1,1,2-Tetrafluoroethane (HFC-134a), wt %	4.0 (nominal)	± 2%
Air and Other Non-condensable Gases, vol %	1.5	
Volatile Impurities, wt %	0.5	
High Boiling Residue, vol %	0.01	
Moisture (H <sub>2</sub> 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	-52.1°F / -46.2°C
Dew Point at 1 atm	-49.9°F / -45.5°C
Flammable Limits (LFL, UFL), vol % (1 atm, 25°C)	Not Applicable
ANSI/ASHRAE Standard 34 Safety Group Classification	A1
Ozone Depletion Potential (ODP) (CFC-11 = 1.0)	0
Global Warming Potential (GWP) (CO <sub>2</sub> = 1.0) (100 year)	3,700

Temperature	50°F	70°F	105°F	115°F	130°F
Vapor Pressure, psia <sup>(1)</sup>	118.3	162.1	266.7	304.3	368.2
Liquid Density, lb./ft <sup>3</sup> (1)	69.3	66.3	60.0	57.8	54.0

<sup>(1)</sup> generated using NIST REFPROP Version 9.0

**CAS Number:** 354-33-6 (HFC-125) / 420-46-2 (HFC-143a) / 811-97-2 (HFC-134a)

**Customer Service: 1.800.245.5858**

June 11, 2012

**BEFORE HANDLING THIS MATERIAL, READ AND UNDERSTAND THE MSDS (MATERIAL SAFETY DATA SHEET) FOR ADDITIONAL INFORMATION ON PERSONAL PROTECTIVE EQUIPMENT AND FOR SAFETY, HEALTH AND ENVIRONMENTAL INFORMATION.**

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