FORANE® 32

CAS No. 75-10-5

Difluoromethane (CH_2F_2)

GENERAL DESCRIPTION

Forane® 32 has a unique balance of cost, performance, low GWP, and availability, making it a growing choice for HVAC. Forane® 32 (HFC-32 or R-32) is one of the next generation low GWP (677) solutions being implemented globally. R-32 is a refrigerant gas for air conditioning, with high capacity and zero glide, and electronics. Forane® 32 is growing in consensus as the choice for new air conditioning units, designed for mildly flammable refrigerants as a replacement for R-410A (GWP 1924).

SPECIFICATIONS

(Meets AHRI 700 - 2019 Specifications)

	Maximum (unless otherwise noted)
Difluoromethane (R-32), wt %	99.5 (minimum)
Air and Other Non-condensable Gases, vol %	1.5
Volatile Impurities, wt %	0.5
High Boiling Residue, vol %	0.01
Moisture (H_2O), 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	Clear, colorless liquid and vapor
Odor	Faint, ether-like odor
Molecular Mass (g/mole of blend)	52.02
Boiling Point at 1 atm	-61.1°F / -51.7°C
Flammable Limits (LFL, UFL), vol % (1 atm, 25°C)	14.4% / 31.0%
ANSI/ASHRAE Standard 34 Safety Group Classification	A2L
Ozone Depletion Potential (ODP) (CFC-11 = 1.0)	0.000
Global Warming Potential (GWP[1]) (CO_2 = 1.0)	677

(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]	160.5	220.5	364.3	416.1	504.2
Liquid Density, lb./ft³ [2]	63.6	61.0	55.6	53.8	50.7

(2) Generated using NIST REFPROP Version 10.0

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

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

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SDC/09-2021

FORANE® REFRIGERANTS BY ARKEMA

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