

Cosutin Industrial CO., Limited

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HFC-404A (R404A)

GENERAL DESCRIPTION

HFC-404A is a zero ozone depletion (ODP) hydrofluorocarbon (HFC) refrigerant blend. HFC-404A is a ternary blend of R125, R143a and R134a (44%/52%/4%). It has been formulated to closely match the properties of CFC R502. It is widely used in new equipment that would have previously used R502 and can with specific modifications be retrofitted into existing R502 equipment. HFC-404A cylinders are colored brown. HFC-404A rated A1 by ASHRAE (lowest levels of toxicity and flammability), having zero ozone depletion potential and a Global Warming Potential of 3922.

Mainly used to medium and low temperature refrigeration systems such as food display and storage cabinets, cold storage rooms, ice machines, refrigerated transportation and process refrigeration. HFC-404A has similar properties to R502, it is possible (with modifications) to use it in existing R502 systems.

SPECIFICATIONS

Appearance :	Colourless and not turbid
Purity,%	≥99.8%
Moisture%	≤0.001
Evaporation residue %	≤0.01
Acidity %	≤0.0001

PROPERTIES

HFC-404A

CAS Number: 420-46-2/354-33-6/811-97-2

Colour: Colourless

Smell: Ether-like

Appearance: Colourless and not turbid

Chemical name: 1,1,1-Trifluoroethane /Pentafluoroethane/1,1,1,2-Tetrafluoroethane

Chemical formula: C₂H₃F₃/C₂H₂F₅/C₂H₂F₄

pH Neutral

pKa Not applicable

Melting point/freezing point -103°C (Pentafluoroethane)

Boiling point/boiling range -46.7°C

Flash point Not applicable

Evaporation rate No data

Flammability (solid, gas) The product is not flammable

Flammability Not applicable

Explosive properties Not explosive

Vapour pressure 10.98 bar at 20°C

20.03 bar at 50°C

Vapour density >3

Density Not applicable

Bulk density Not applicable

Solubility 430 mg/l at 25°C, water
(pentafluoroethane)

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Solubility/qualitative	No data available
Partition coefficient: n-octanol/water	log Pow: 1.48, 20°C (pentafluoroethane)
Auto-ignition temperature	728°C
Decomposition temperature	>700°C
Viscosity	Not applicable
Oxidizing properties	Non oxidizer

Handling method and safety information

HFC-404A is liquefied gas. Read the Material Safety Data Sheet (MSDS) before use.

Hazard pictogram(s):



Packaging specifications

Filled in 10.9kg/400L/800L/926L cylinders, ISO tank.