



FluoSolv[®] 7500

3M Novec 7500 Replacement Fluid

Technical Information

High-Performance Engineered Fluid

Introduction

FluoSolv[®] 7500 mirrors the performance of 3M[™] Novec[™] 7500 Engineered Fluid with identical key properties, offering a nonflammable, low Global Warming Potential (GWP 90) heat transfer solution. It's optimized for diverse cooling tasks across semiconductor, electronics, pharmaceutical, and industrial sectors—providing superior dielectric performance and environmental safety.

Key Features & Benefits

- Nonflammable with high safety margin
- Wide operational thermal range (boiling point 128 °C, pour point –100 °C)
- Low Global Warming Potential (GWP ~90) and Ozone Depletion Potential (ODP = 0, with U.S. VOC-exempt status)
- Excellent dielectric properties and thermal performance
- Low toxicity and minimal aquatic ecotoxicity
- Compatible with most electronic and mechanical materials

Applications

FluoSolv[®] 7500 excels in:

- **Heat transfer** in ion implanters, dry etchers, CVD systems, semiconductor test equipment
- **Immersion cooling** for supercomputers, military electronics, and high-voltage transformers
- **Freeze-drying**, reactor cooling, and pharmaceutical processing
- Replacement for higher-GWP PFCs and PFPEs in demanding thermal applications

Material Compatibility

Metals: Stainless steel, Nickel, Copper, Aluminum, and Monel

Plastics: Polycarbonate, PMMA, ABS, Polypropylene, and Polyethylene

Elastomers: EPDM, Natural Rubber, and Polyurethane

Physical Properties

Property	NuGenTec FluoSolv® 7500	HCFC 141b	HCFC-225
Boiling Point °C	128	32	54
Liquid Density (kg/m³)	1614	1.23	1.55
Surface Tension (dynes/cm)	16.2	19.3	16.2
Solubility of Solvent in Water	<3 ppmw	210	330
Vapor Pressure at 25°C (mmHg)	14.3	569	290
Global Warming Potential (GWP)	90	700	180/160
Ozone Depleting Chemical	0	0.10	0.03
Volatile Organic Compounds (VOC)	Exempt	Exempt	-
Flash point	None	None	None

Free Solvent Sample and Vapor Degreaser for Testing

NuGenTec offers a small loaner vapor degreaser and a loaner 5-gallon pail to assist with your testing. The loaner vapor degreaser plugs into a standard wall outlet and fits on a standard pallet. This allows you to test our FluoSolv® solvent in your own controlled environment without immediately changing the solvent in your current equipment.

FluoSolv® 7500 is available for purchase in three package sizes:

- 55-gal phenolic lined metal drums
- 5-gal phenolic lined pails
- 1-gal HDPE plastic bottles

For further information about FluoSolv® 7500 for testing or purchasing please contact:

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