



# FluoSolv<sup>®</sup> 7700

3M Novec 7700 Replacement Fluid

## Technical Information

### *High-Performance Engineered Fluid*

#### Introduction

FluoSolv<sup>®</sup> 7700 is NuGenTec's high-performance engineered fluid designed as a direct replacement for 3M<sup>™</sup> Novec<sup>™</sup> 7700. It offers excellent thermal stability, non flammability, and environmental responsibility, making it an ideal solution for demanding cooling and heat transfer applications.

With a boiling point of 167 °C, low vapor pressure, and zero Ozone Depletion Potential, FluoSolv<sup>®</sup> 7700 is tailored for industries requiring safe, reliable, and sustainable engineered fluids.

#### Key Features & Benefits

- Nonflammable fluid for enhanced workplace safety
- High boiling point (167 °C) suitable for a wide range of thermal management applications
- Low Global Warming Potential (GWP = 420) and Ozone Depletion Potential (ODP = 0)
- Chemically stable and compatible with many metals and plastics
- Excellent dielectric properties for use in electronic cooling
- Minimal toxicity with favorable safety profile

#### Applications

- Heat transfer in semiconductor equipment (ion implanters, etchers, CVD tools)
- Immersion cooling for supercomputers and data centers
- Thermal shock testing and environmental chambers
- Cooling for military electronics and high-voltage transformers
- Freeze-drying and reactor cooling in industrial and pharmaceutical processes

#### Material Compatibility

FluoSolv<sup>®</sup> 7700 is compatible with all metals, ceramic and other non-conducting materials. Most elastomeric materials are compatible except fluoroelastomers such as Viton & Kalrez which tend to swell. It is recommended that all materials be tested prior to use.

##### Compatible

<b>Metals</b>	Aluminum, Copper, S/S Titanium, BCASs, Tungsten
<b>Elastomers</b>	Neoprene, Butyl Rubber, EPDM, Kynar (PVDF)
<b>Plastics</b>	HDPE, PTFE, Nylon, PVC Epoxy, Phenolic

*Additional testing required for plastics such as ABS, Acrylic, Polycarbonate and fluoroelastomers (Viton A & B & others)*

## Physical Properties

Property	NuGenTec FluoSolv® 7700	HCFC 141b	HCFC-225
Boiling Point °C	167	32	54
Liquid Density (kg/m³)	1797	1.23	1.55
Surface Tension (dynes/cm)	18	19.3	16.2
Solubility of Solvent in Water	<1 ppb	210	330
Vapor Pressure at 25°C (mmHg)	0.75	569	290
Global Warming Potential (GWP)	420	700	180/160
Ozone Depleting Chemical	0	0.10	0.03
Volatile Organic Compounds (VOC)	1797 g/L	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® 7700 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® 7700 for testing or purchasing please contact:

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