



# FluoSolv<sup>®</sup> 73DE

3M Novec 73DE Replacement Fluid

## Technical Information

### *Azeotropic Vapor-Degreasing Solvent*

#### Introduction

**FluoSolv<sup>®</sup> 73DE** is a high-performance azeotropic vapor-degreasing and immersion-cleaning solvent engineered to mirror the properties of 3M<sup>™</sup> Novec<sup>™</sup> 73DE. It offers powerful solvency for hard-to-remove oils, greases, waxes, silicones, and non-polar flux residues. With stable bath composition over long operational cycles, it serves as a cost-effective alternative to n-propyl bromide, TCE, HCFCs, and high-GWP HFCs—while remaining non-flammable and environmentally conscious.

#### Key Features & Benefits

- **Heavy-duty cleaning:** Exceptional solvency and low surface tension enable rapid removal of tough residues.
- **Eco-friendly and safe:** Zero Ozone Depletion Potential (ODP = 0) and low Global Warming Potential (GWP ≈ 47)
- **Stable and efficient:** Constant vapor/liquid composition supports reliable performance in vapor degreaser systems.
- **Non-flammable with strong safety profile.**

#### Applications

FluoSolv<sup>®</sup> 73DE is ideal for:

- Vapor degreasing and immersion cleaning
- Spray cleaning and vapor-phase drying
- Lubricant or coating deposition processes where robust solvent action is necessary

#### Material Compatibility

**Metals:** Compatible with stainless steel, Aluminum, Titanium, carbon steel.  
Incompatible with Copper (may oxidize), brass, Magnesium, Cadmium

**Plastics:** Compatible with acetal, epoxy, nylon, PEEK, polyester, polyethylene, polypropylene, PTFE (Teflon).  
Incompatible with ABS, acrylic, polycarbonate, polystyrene).

**Elastomers:** Compatible with butyl rubber, Viton<sup>™</sup>, fluoropolymer elastomers.  
Incompatible with silicone, fluoroelastomers, polyurethane.

Parts comprising silicone, acrylic, or Copper should be evaluated for swelling, crazing, or oxidation risk. For aerospace-grade testing, materials pass: Sandwich Corrosion, Effect on Painted Surfaces, Effect on Unpainted Surfaces, Total Immersion Corrosion, Low-Embrittling Cadmium Plate, Acrylic Stress Crazing, Stress Corrosion of Titanium Alloys

## Physical Properties

Property	NuGenTec FluoSolv® 73DE	HCFC 141b	HCFC-225
Boiling Point °C	48	32	54
Liquid Density (g/mL)	1.28	1.23	1.55
Surface Tension (dynes/cm)	19.9	19.3	16.2
Solubility of Solvent in Water (ppmw)	<10	210	330
Vapor Pressure at 20°C (mmHg)	~263	569	290
Global Warming Potential (GWP)	47	700	180/160
Ozone Depleting Chemical	0	0.10	0.03
Volatile Organic Compounds (VOC)	1090g/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® 73DE 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® 73DE for testing or purchasing please contact:

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