



## Why Use 3M™ Novec™ Fluid to replace HFC Solvents?

- 1 Global Warming. HFC-4310mee and HFC-365mfc, HFCs used in solvent cleaning, have Global Warming Potentials (GWP) of 1500 and 890 and are regulated under (EC) No. 842/2006. Other HFCs have similarly high GWP figures.

**The Novec family of products, based on Segregated Hydro-Fluoro-Ethers have much lower GWP and are not covered by (EC) No. 842/2006.**

**For example, if HFC-4310 is replaced with Novec HFE-7200 fluid the greenhouse gasses emitted in CO<sub>2</sub> equivalent would be reduced by 96.3%. For 100Kg of each fluid HFE-7200 saves the equivalent of :- 144.5 Tonnes of CO<sub>2</sub> or 31 cars driven for a year or 336 Barrels of Oil.**

- 2 Special Operator Training & Operational Regulation. Under the requirements of (EC) No. 842/2006 operators are required to be certified as competent for systems using HFC fluids. There are also additional regulations relating to HFC vapour recovery for the equipment used.

**The family of Novec fluids are not covered by these regulations.**

- 3 HFC-based Solvents consume much higher volumes of Solvent.

**Novec Fluids have beneficial properties (Surface tension, vapour pressure, viscosity, heat of vaporisation & boiling point) which ensure far less solvent is used in a like-for-like comparison.**

- 4 Cleaning Performance.

**Novec fluids and patented cleaning processes, such as Co-Solvent & Bi-Solvent, have been successfully used in many applications across a wide range of industrial segments.**

- 5 Are You A Guinea-Pig? New HFC Blends are being made available to compete with the outstanding cleaning performance of the range of Novec fluids. Many of these blends are supplied with limited technical information relating to Materials Compatibility, Flammability, Toxicity, Stability & Environmental considerations. Some HFC products are not azeotropes, which means their composition may vary over time, possibly becoming flammable or reducing the cleaning performance.

**The range of Novec fluids and cleaning processes have been available for over 10 years and have been thoroughly tested and proven. 3M's Novec fluid products are backed by experienced Technical Service Engineers, Analytical Laboratories, Product Testing Facilities and R&D Teams, ensuring the products meet performance requirements along with Environmental & Safety considerations. Novec fluids are widely available and locally stocked ensuring reliable deliveries.**

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