

MicroCare™
ENGINEERED FLUIDS

72FL

Specialty Cleaning Fluid for Aircraft

Use for aircraft maintenance and cold cleaning.

- Engineered for cleaning the outer surfaces of aircraft, including flaps, control systems, connectors, electronic components, relays, and circuit protection devices
- Ideal replacement for Novec™ 72FL
- Replaces TCE, perchloroethylene, HCFCs, HFCs, nPB

Introduction

A precision-engineered cleaning solution, MicroCare 72FL Engineered Fluid delivers effective cleaning results with outstanding environmental and safety profiles.

Benefits

- Fast Drying & Low Odor – Evaporates quickly without leaving residue.
- Non-Flammable – Enhances workplace safety.
- Excellent Plastic Compatibility – Safe for most plastics, minimizing damage risk.
- Low Toxicity – Safer alternative to traditional solvents.
- No Rinsing Required – Reduces processing time and effort.
- Non-Corrosive & Non-Conductive – Safe for sensitive electronic components.
- 80% U.S. EPA VOC Exempt – Helps meet regulatory compliance.
- Does Not Contain TCE, Perchloroethylene, HCFCs, HFCs, nPB, or HAPs – Safer for users and the environment.

Use Procedures

Well-suited for cold cleaning methods such as flushing, wiping, and spraying to remove particulates, fluorinated lubricants, light oils, and fluoropolymer residues. Effectively cleans hydraulic fluid without compromising corrosion-inhibiting coatings (CIC). Not intended for vapor degreasing, as the non-azeotropic formulation causes vapor composition to change over time, making it unsuitable for such applications.



Replacements for
3M™ Novec™
Engineered Fluids

We offer chemically equivalent fluid formulas for the ones you already rely on, delivering the same high-quality cleaning performance without costly operational changes.

Our products meet or exceed 3M Novec™ performance standards, and as a leading supplier of high-purity HFEs, we ensure they pass the industry's most stringent quality metrics.

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Applications

- Cold Cleaning Applications – Ideal for flush, wipe, and spray cleaning.
- Aircraft Exterior Cleaning – Removes light oils, greases, and particulates from flaps, controls, connectors, circuit breakers, relays, electromechanical devices and exterior surfaces.
- Cleaning Electromechanical Devices – Safe for relays, circuit breakers, and connectors.
- Hydraulic Fluid Removal – Cleans without affecting corrosion-inhibiting compounds (CIC coatings).
- Fluoropolymer and Fluorolube Cleaning – Effective on specialized lubricants and coatings.
- Electronics Cleaning – Removes dust and particulates without residue.

Specifications

Properties	Value
Boiling Point (°C)	45
% Volatile	100
Evaporation Rate (relative to n-Butyl Acetate)	0.10
Surface Tension (dynes/cm²)	16*
Liquid Density (g/ml)	1.40

* Estimated Value.

Properties	Value
Dielectric Strength	>25 kV
Shelf Life	Initially 1 Year (further testing underway)
Heat of Vaporization	38*
Vapor Density	7.9
Vapor Pressure	330

Materials Compatibility

MicroCare™ 72FL Engineered Fluid is compatible with most plastics

Material	Compatibility	Material	Compatibility
ABS	Excellent	PMMA	Excellent
Nylon	Excellent	POM	Excellent
Lexan®/Polycarbonate	Excellent	PP	Excellent
HDPE	Excellent	PS	Excellent
CDPE	Excellent	PTFE	Excellent
C.E. Phenolic	Excellent	PVC	Excellent

Environmental Health and Safety

Properties	Novec 72FL	HCFC-14b*	HCFC-225*
Ozone Depletion Potential¹ (ODP)	0	0.1	0.03
Global Warming Potential² (GWP)	71	725	370
Flashpoint	None	None	None
Exposure Guideline (ppmV, 8 hr time weighted average)	200	500	50

¹ CFC-11=1.0, ² GWP-100 year integration time horizon. CO₂ = 2.0

* HCFC-141b is no longer produced in the U.S. and HCFC-225 will be banned after 2014.

Storage and Handling

Before using this product, read carefully and follow all precautions and directions provided on the product label and on the Safety Data Sheet (SDS).

MicroCare™ 72FL Engineered Fluid is nonflammable and highly resistant to thermal breakdown and hydrolysis during storage and use. It is thermally and hydrolytically stable, keeping integrity under normal storage conditions without oxidation or degradation. To ensure the best performance, store containers in a clean, dry area away from direct sunlight, with a recommended storage temperature not exceeding 30°C.

For detailed handling and safety recommendations, refer to the SDS, available from your local representative or online at microcare.com.



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