

MicroCare™
ENGINEERED FLUIDS

71IPA

Specialty Cleaning Fluid, Flux Remover and Degreaser

Use for light duty cleaning, rinsing and degreasing.

- Removes oils, waxes, greases and fingerprints
- Ideal replacement for Novec™ 71IPA
- Replaces ozone-depleting substances like CFC-113 and HCFC-141b

Introduction

A precision-engineered azeotropic-like cleaning solution, MicroCare™ 71IPA Engineered Fluid delivers effective cleaning results with outstanding environmental and safety profiles. With superior polar soil solvency and low surface tension, MicroCare™ 71IPA Engineered Fluid is ideal for precision and specialty cleaning. It efficiently eliminates particulates, fingerprints, and light contaminants from metal, plastic, and glass surfaces.

Benefits

- Effectively removes light oils, greases, waxes, fingerprints, and particulates from metal, plastic, and glass surfaces.
- Low surface tension allows for thorough penetration and cleaning of complex geometries.
- Safe for use with a wide range of metals, plastics, and elastomers.
- High volatility ensures quick evaporation, leaving no residue.
- Resistant to thermal breakdown and hydrolysis, ensuring long-term performance.
- Nonflammable under normal operating conditions, with a low toxicological profile.
- Does not contain hazardous air pollutants (HAPs) and meets environmental safety standards.

Use Procedures

It is recommended that MicroCare™ 71IPA Engineered Fluid be used in a vapor degreaser or closed-loop system to maximize cleaning efficiency, economy, and emission control. Cleaning procedures for MicroCare™ 71IPA are like those of conventional vapor degreasing products. The procedures consist of immersing a workload into the vapor or boiling solvent, rinsing with solvent, and then drying in the solvent vapor. Coating can be conducted by mixing the coating material with MicroCare™ 71IPA Engineered Fluid and dipping a workload into the coating bath followed by air drying.



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

- Removes light soils from delicate components in electronics, medical, and optics industries.
- Works with co-solvents to clean no-clean flux residues in electronics.
- Quickly removes moisture from components due to its high volatility.

Recovery

MicroCare™ 71IPA Engineered Fluid is recoverable by simple distillation, either by using a vapor degreaser or a simple still apparatus, reducing waste and operational costs.

Recovery should be closely watched to ensure that the operating levels are maintained. Spent ingredients and still bottoms need to be disposed of according to Federal, State, and local regulations.

Specifications

Property	MicroCare™ 71IPA	Vertrel™ XM	Vertrel™ XE	Tergo™ PF105	Tergo™ PF100IPA	Tergo™ XCF1
BP (C)	55	48	52	54	51	54
KB value	<20	<20	<20	<20	<20	44
Specific Gravity	1.48	1.49	1.52	1.4	1.42	1.39
Surface Tension (dyne/cm)	14.5	14.1	14.1	~ 16	~ 16	21.7
GWP	310	1222	1248	580	555	<1
Plastic Compatibility	Fair	Good	Good	Good	Good	Fair

Materials Compatibility

Testing of MicroCare™ 71IPA Engineered Fluid demonstrates compatibility with a wide range of metals, plastics and elastomers, similar to the performance of perfluorinated liquids. Good compatibility with particularly sensitive plastics such as polycarbonate and PMMA indicates utility in cleaning of assemblies containing many composite materials. As with most fluorinated liquids, MicroCare™ 71IPA fluid will absorb into fluorinated plastics and elastomers over longer exposures.

Metals	Plastics	Elastomers
Aluminum	Acrylic (PMMA)	Butyl Rubber*
Copper	Polyethylene	Natural Rubber
Carbon Steel	Polypropylene	Nitrile Rubber
302 Stainless Steel	Polycarbonate	EPDM
Brass	Polyester	
Molybdenum	Epoxy	
Tantalum	PET	
Tungsten	Phenolic	
Cu/Be Alloy C172	ABS	
Mg Alloy AZ32B		

Compatible after one hour exposure at boiling temperature.

Exceptions: Some swelling of PTFE and Silicone Rubber. Some surface oxidation of copper during heat aging.

**Butyl Rubber best for extended exposure >1 month.*

Environmental Health and Safety

Properties	MicroCare™ 71IPA Engineered Fluid
Ozone Depletion Potential–ODP ¹	0.0
Global Warming Potential ²	310
Flash Point	None

¹ CFC-11=1.0

² GWP–100 year ITH, CO₂ = 1.0

*Isopropyl alcohol (IPA) has an 8 hr. TWA exposure guidelines of 400 ppm

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™ 71IPA 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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