

CERTONAL HFE7200 Specialty Cleaning and Rinsing Agent, Carrier Fluid

Introduction

Certonal™ HFE7200 Engineered Fluid is a clear, colourless, and low odour vapor degreasing fluid designed for various applications, including parts cleaning, rinsing, heat transferring for sensitive processes and carrying and deposition of lubricants and coatings. Its low surface tension and low viscosity make it ideal for light-duty vapor degreasing or cold cleaning applications.

Applications

- Removing light oils and particulates
- Lubricant carrier for fluorocarbons, hydrocarbons and silicones

Benefits

- Non-flammable for improved workplace safety
- Very low global warming potential (GWP), contributing to climate protection
- Non-ozone depleting, ensuring minimal environmental impact
- Fast drying for improved process efficiency
- Excellent toxicity profile (200 ppm)
- Provides reliable chemical and thermal stability

Table 1 Physical Properties

Property	Certonal 71IPA
Formula	C4F9OC2H5
Molecular Weight	264
Boiling Point (°C)	76
Freeze Point (°C)	-138
Liquid Density (g/ml)	1.43
Surface Tension (dynes/cm)	13.6
Solubility of Solvent in Water (ppmw)	<20
Solubility of Water in Solvent (ppmw)	92
Vapor Pressure (mmHg)	109
Viscosity (cps)	0.61
Heat of Vaporization (cal/g @ boiling point)	30
Specific Heat (cal/g°C)	0.29

Table 2 Product Comparison Chart

Property Certonal™	Property Certonal™	Property Certonal™	Property Certonal™	Property Certonal™	Property Certonal™
BP (C)	76	33	55	56	51
KB Value	<20	<20	<20	<20	<20
Specific Gravity	1.53	1.36	1.58	1.47	1.39
Surface Tension (dyne/cm)	13.6	13	14.1	16.4	15
GWP	55	2	1650	580	27
Plastic Compatibility	Good	Good	Good	Good	Fair

Materials Compatibility

Certonal™ HFE7200 Engineered Fluid is compatible with most metals and hard polymers such as:

Short -Term Exposure Compatibility		
Metals	Plastics	Elastomers
Aluminum	Acrylic (PMMA)	Butyl Rubber
Molybdenum	Epoxy	Natural Rubber

Copper	Polyethylene	Nitrile Rubber
Tantalum	PET	EPDM
Carbon Steel	Polypropylene	
Tungsten	Phenolic	
302 Stainless Steel	Polycarbonate	
Cu/Be Alloy C172	ABS	
Brass	Polyester	
Mg Alloy AZ32B		

Exceptions: Some swellings of PTFE and Silicone Rubber. Some surface oxidations of copper during heat aging.

Environmental Health & Safety

Properties	
Ozone Depletion Potential (ODP) ¹	None
Global Warming Potential (GWP) ²	55
Atmospheric Lifetime (years)	0.77
Flash Point	None
Flammability Range in Air	2.4–12.4%
Exposure Guidelines (8 hr. time-weighted average)	200
Acute Toxicity (4 hr. LC50 [Rat])	>92,000

¹ HCFC-225 ca/cb ratio is 45/55

² CFC-11 = 1.

Storage & Handling

Before using this product, carefully read and follow all precautions and directions provided on the product label and in the Safety Data Sheet (SDS). Certonal™ HFE7200 Engineered Fluid is non-flammable 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.

