

ASAHIKLIN AE3100E



AsahiKlin AE3100E is a fluorinated solvent used for cleaning, alcohol drying, and dewatering. This Hydrofluoroether (HFE-347pc-f) is a nonflammable solvent that has excellent material compatibility, low surface tension, low Global Warming Potential, and Zero ODP.

Typical Applications

- Defluxing of electronics, electrical components, and printed wiring assemblies
- Precision cleaning of metals, alloys, composites, and plastics
- Drying agent after cleaning with hydrocarbons or alcohols
- Drying after wet plating and for Carbide Metal before coating
- Particle removal
- Replacement for HCFC, Dupont™ Vertrel®, & 3M™ Novec™ solvents

Benefits

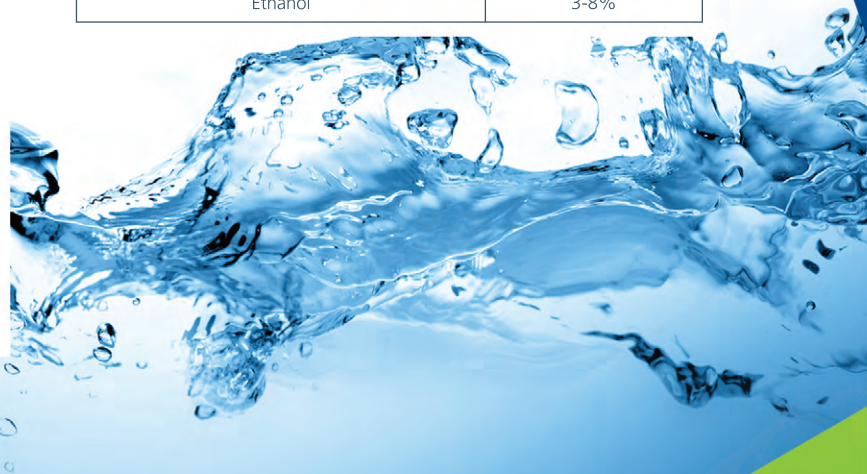
- Non-flammable
- Non-corrosive
- Superior drying property
- Excellent permeability
- Recyclable
- Low global warming potential (GWP)
- Zero ozone depletion potential (ODP)
- No surfactants necessary
- Recoverable by simple distillation
- Can be used with ultrasonics
- Low surface tension & viscosity
- High liquid density
- Excellent thermal, chemical, and hydrolytic stability

Physical Properties

Property	AsahiKlin AE3100E
Boiling Point	54 °C (129.2 °F)
Melting Point	-86 °C (-122.8 °F)
Density (g/cm ³ , 25 °C)	1.40
Viscosity (cST, 25 °C)	0.43
Surface Tension (dyne/cm, 25 °C)	16.1
Specific Heat (kJ/kg K, 25 °C)	1.49
Latent Heat of Vaporization (KJ/kg, 39 °C)	187
Relative Evaporation Rate (Ether=100)	66
Flash Point (Open/Closed cup)	None
Vapor Pressure (kg/cm ² , 25 °C)	0.28

Composition

Components	AsahiKlin AE3100E
1,1,2,2-tetrafluoroethyl-2,2,2-trifluoroethyl ether	92-97%
Ethanol	3-8%



Cleaning Procedure

It is recommended that AsahiKlin AE3100E be used in a vapor degreaser to optimize cleaning efficiency, economy, and emission control. Cleaning procedures for AsahiKlin AE3100E are quite similar to those of AK225 products. The procedures consist of immersing a workload into the boiling solvent, rinsing or spraying with cool solvent and drying in solvent vapor.

Material Compatibility

AsahiKlin AE3100E has a broad range of compatibilities.

Effect of AsahiKlin AE3100E on Unstressed Plastics and Elastomers at the Boiling Point

Material	At boiling for 3 days	
	Weight Change (%)	Linear Swell (%)
Polypropylene	<2.5	<2.0
Polystyrene	<2.0	<1.0
Polymethyl methacrylate	Affected	Affected
ABS	<7.5	<2.5
PTFE	<2.5	<2.5
Fluoroelastomer	>69	>21
Silicon Rubber	<20	<5.0
EPDM	<0.1	<0.1

Environmental Properties

Property	AsahiKlin AE3100E
Ozone Depletion Potential (ODP), CFC-11 = 1.0	None
Global Warming Potential (GWP), CO ₂ = 1.0, 100yr ITH	580 (as per the NEAT product)
Flash Point	None

Environmental Health and Safety

Please read the current product Material Safety Data Sheet (available through your AGCCA technical service representative) and the precautionary statement on the product package prior to use. Follow all applicable precautions and directions.

AsahiKlin AE3100E is nonflammable. The solvent is an azeotrope and is resistant to thermal breakdown and hydrolysis during storage and use. Recommended handling procedures are provided in the Material Safety Data Sheet, which is available from your AGCCA representative upon request.



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