



Efficient Cooling. Safe Operation. Sustainable Performance.

PRODUCT OVERVIEW

AURON FD-43 is a fully fluorinated dielectric heat transfer fluid designed for demanding thermal management, cleaning, and specialty industrial applications.

The clear, colorless liquid combines excellent dielectric properties, non-flammability, low viscosity, and exceptional chemical stability. Its broad liquid temperature range and material compatibility make it suitable for applications requiring both electrical insulation and efficient heat transfer.

In addition to thermal management, AURON FD-43 can be used as a precision cleaning solvent, lubricant carrier, and specialty process fluid.

KEY FEATURES

- ▶ Non-flammable — no flash point
- ▶ Excellent dielectric properties
- ▶ Low-viscosity
- ▶ High thermal stability
- ▶ Very good material compatibility
- ▶ Wide fluid temperature range
- ▶ Ultra-low evaporation residue
- ▶ Reliable long-term performance

APPLICATIONS

- ▶ Heat transfer systems
- ▶ Data center cooling, power electronics, semiconductor equipments
- ▶ Precision cleaning (heavy oils, greases, flux residues, oils, waxes, fluorinated lubricants...)
- ▶ Lubricant carriers (fluorocarbons, hydrocarbons, silicone formulations)

TECHNICAL SPECIFICATIONS

| | |
|--|---------------------------|
| Appearance | Clear, colorless |
| Chemical Type | Heat transfer fluid |
| Flash Point | None |
| Boiling Point | 160°C |
| Pour Point | -65°C |
| Density (25°C) | 1.790 kg/l |
| Kinematic Viscosity (25°C) | 1.77 cSt |
| Kinematic Viscosity (45°C) | 1.012 cSt |
| Specific Heat Capacity | 1.32 kJ/(kg·K) |
| Thermal Conductivity | 0.0521 W/(m·K) |
| Expansion Coefficient | 0.00118 K ⁻¹ |
| Dielectric Strength (0.1" gap) | 52.57 kV |
| Dielectric constant (25°C) 1KHz | 5.6 |
| Volume Resistivity | 5.06×10 ⁹ Ω·cm |
| Evaporation Residue | < 1ppm |

ENVIRONMENT & SAFETY

- ▶ ODP: 0
- ▶ Non-flammable
- ▶ Long service life / low maintenance requirements
- ▶ Extremely low residue formation



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ELECTRICAL INSULATION

The fluid is particularly suitable for applications where electrical insulation and thermal management must be combined:

- ▶ Dielectric strength: 52.57 kV (0.1" gap)
- ▶ Dielectric constant: 5.6
- ▶ Volume resistivity: $5.06 \times 10^9 \Omega \cdot \text{cm}$

THERMAL PERFORMANCE

AURON FD-43 offers:

- ▶ Efficient heat transfer
- ▶ Excellent thermal stability
- ▶ Wide liquid operating range
- ▶ Low viscosity for improved circulation
- ▶ Consistent thermal performance under demanding operating conditions

Recommended operating range (typical)

- ▶ Approx. -60°C to +155°C
- ▶ Suitable for single-phase cooling systems and immersion cooling applications

ECONOMIC ADVANTAGES & SUSTAINABILITY

- ▶ Reduced maintenance intervals
- ▶ Improved process reliability
- ▶ Enhanced equipment protection
- ▶ Suitable for high-value electronics and industrial assets

MATERIAL COMPATIBILITY

AURON FD-40 is chemically inert and generally compatible with numerous materials.

Testing recommended for specific applications!

- ▶ Metals: Aluminium, copper, stainless steel, brass, nickel
- ▶ Plastics: ABS, PC, PE, PP, PTFE, PMMA, PEEK
- ▶ Elastomers: EPDM, NBR, silicone, FKM

SAFETY

- ▶ Read Safety Data Sheet (SDS) before use
- ▶ For industrial/professional use only
- ▶ No hazardous polymerization
- ▶ Not regulated for transport
- ▶ AURON FD-40 contains fluorinated compounds

PACKAGING & STORAGE

- ▶ Available packaging: 1kg, 5kg plastic bottle
- ▶ Store in closed original containers
- ▶ Keep in cool, dry environment
- ▶ Keep away from strong oxidizers, acids and bases
- ▶ Avoid release to the environment

Disclaimer: Information based on current knowledge. User is responsible for verifying product suitability. No warranty for specific results. Specifications subject to change without notice.