AURON HFE-7500

CAS 297730-93-9
Heat transfer fluid

Efficient Cooling. Safe Operation. Sustainable Performance.

PRODUCT OVERVIEW

AURON HFE-7500 is a clear, colorless, and odorless fluorinated heat transfer fluid for industrial applications. It is suitable for heat transfer, electronic testing, cleaning processes, and applications in semiconductor manufacturing.

Thanks to its wide operating temperature range, low viscosity, and excellent dielectric properties, it is particularly well-suited for cooling ion implanters, dry etchers, CVD systems, and other power electronics. The product is non-flammable, thermally stable, and has a low global warming potential.

KEY FEATURES

- Non-flammable — no flash point
- Excellent dielectric properties
- Very low Low-viscosity
- Low GWP & zero ODP
- Chemical and thermal stability
- Good material compatibility
- Wide liquid temperature range

APPLICATIONS

- Cooling ion implanters
- Electrical testing
- Heat transfer systems
- dry etching systems
- CVD processes

TECHNICAL SPECIFICATIONS

Appearance / Odor	Clear, colorless, odorless
Chemical Type	Fluorinated heat transfer fluid
Flash Point	None
Boiling Point	128°C
Pour Point	-100°C
Critical Temperature	261°C
Critical Pressure	1.55 MPa
Density (25°C)	1.62 kg/l
Molecular Weight	414 g/mol
Kinematic Viscosity (25°C)	0.75 cSt
Kinematic Viscosity (-35°C)	3.05 cSt
Surface Tension	16.2 mN/m
Specific Heat Capacity	1.143 kJ/(kg·K)
Thermal Conductivity	68 mW/(m·K)
Heat of Vaporization	88.5 kJ/kg
Expansion Coefficient	~0.00129 K^{-1}
Vapour Pressure	849 Pa
Water Solubility	< 3 ppm
***n*-octanol-water partition coefficient**	Log Pow: 5.75

ENVIRONMENT & SAFETY

- ODP: 0
- GWP: < 100-120
- Non-toxic
- Non flammable

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ELECTRICAL INSULATION

The fluid is suitable for applications involving live electrical components

- Dielectric strength: 35 kV
- Low dielectric constant: 5.8
- High resistivity: 2,2 x10⁸ Ω·cm

THERMAL PERFORMANCE

The fluid provides efficient heat transfer due to:

- Very low viscosity
- Good surface wetting characteristics
- Stable thermal properties
- Wide liquid temperature range

Recommended operating range (typical)

- Approx. -90°C to +120°C

MATERIAL COMPATIBILITY

Compatible with a wide range of materials.

Testing recommended for specific applications!

- Metals: Aluminium, copper, stainless steel, monel, nickel
- Plastics: ABS, PC, PE, PP, PMMA
- Elastomers: EPDM, natural rubber, polyurethane

SAFETY

- Read Safety Data Sheet (SDS) before use
- For industrial/professional use only
- AURON HFE-7500 is a PFAS material

PACKAGING & STORAGE

- Available packaging: 1lk aluminium bottle, 5kg plastic bottle, 25kg plastic canister

- Store in closed original containers
- Keep in cool, dry environment
- Avoid contamination during handling

ECONOMIC ADVANTAGES & SUSTAINABILITY

- Replacement for PFPE-, PFC-, HCFC-, and HFC-based fluids
- Low operating costs due to low viscosity
- Long service life
- Sustainable alternative for industrial cooling

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

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