



CT-COOL

Technological advancements such as cloud computing, artificial intelligence, blockchain technology and the need for faster information processing, are driving data centers to maximize efficiencies while using a tremendous amount of power and energy. CT-COOL immersion cooling fluid provides a highly efficient solution for cooling electrical components and optimizing data center performance by effectively transferring the heat away from technology systems. Compared to energy intensive air cooling, CT-COOL reduces the overall power consumption to lower energy costs. Our fluid is used in single-phase immersion cooling to prevent over-heating and protect equipment from failure.

Advantages:

- **Server performance:** Conducts heat better than air to remove excess heat generated by equipment.
- **Reliability:** Helps keep equipment operating smoothly with fewer break down interruptions.
- **Reduced energy usage:** Effective at transferring heat and reducing energy costs.
- **Safety:** Food-grade purity, PFAS-free: Promoting a healthier environment and does not contribute to global warming. (PFAS-free contains no intentionally added fluorocarbons). Low volatility.

Typical Properties	Units	Method	CT-COOL
Thermal Conductivity @ 50 °C	W/m*K	ASTM D7896	0.1213
Specific Heat @ 50 °C	J/kg*K	ASTM E1269	1935
Dielectric Constant, 40 GHz 70 °C		Split Cylinder Resonator	2.14
Loss Tangent, 40 GHz 70 °C		Split Cylinder Resonator	0.00053
Dielectric Strength (1mm gap)	kV	ASTM D1816	20.8
Volume Resistivity @ 60 °C	GΩm	ASTM D1169	61000
Volumetric Expansion	1/°C	ASTM D1903	0.00066
FOM1 @ 25 °C		OCP	33
FOM1 @ 50 °C		OCP	41
Sulfur	ppm	ASTM D5453	0.24
Flash Point (Closed Cup)	°C	ASTM D93	187
Autoignition Point	°C	ASTM E659	320
Fire Point	°C	ASTM D92	211
Pour Point	°C	ASTM D97	-29
Acid Number	mg KOH/g	ASTM D664	0.01
Kinematic Viscosity @ 40 °C	cSt	ASTM D7042	12.1
Kinematic Viscosity @ 100 °C	cSt	ASTM D7042	3.0
Density @ 50 °C	kg/m ³	ASTM D4052	813
Vapor Pressure @ 70 °C	mbar	ASTM D2879	<0.13
Color, Saybolt		ASTM D156	30
FDA Food Contact	Pass	21 CFR 178.3620	Direct (a)