Cargill NatureCool™ Immersion Cooling Fluid

The next generation, plant based single-phase immersion cooling fluid.

Nature derived
- Derived from >90% vegetable oil, a renewable resource
- Readily biodegradable in as little as 10 days
- Non-toxic to humans, soil and water

Superior fire safety
- 325°C flash point
- Won't self ignite, flames out after heat source is removed

More sustainable*
- CO_2 neutral
- Global Warming Potential of zero

More efficient cooling
- 10% higher heat capacity than synthetics

*Compared to synthetics and bioderived hydrocarbons

Cargill Bioindustrial
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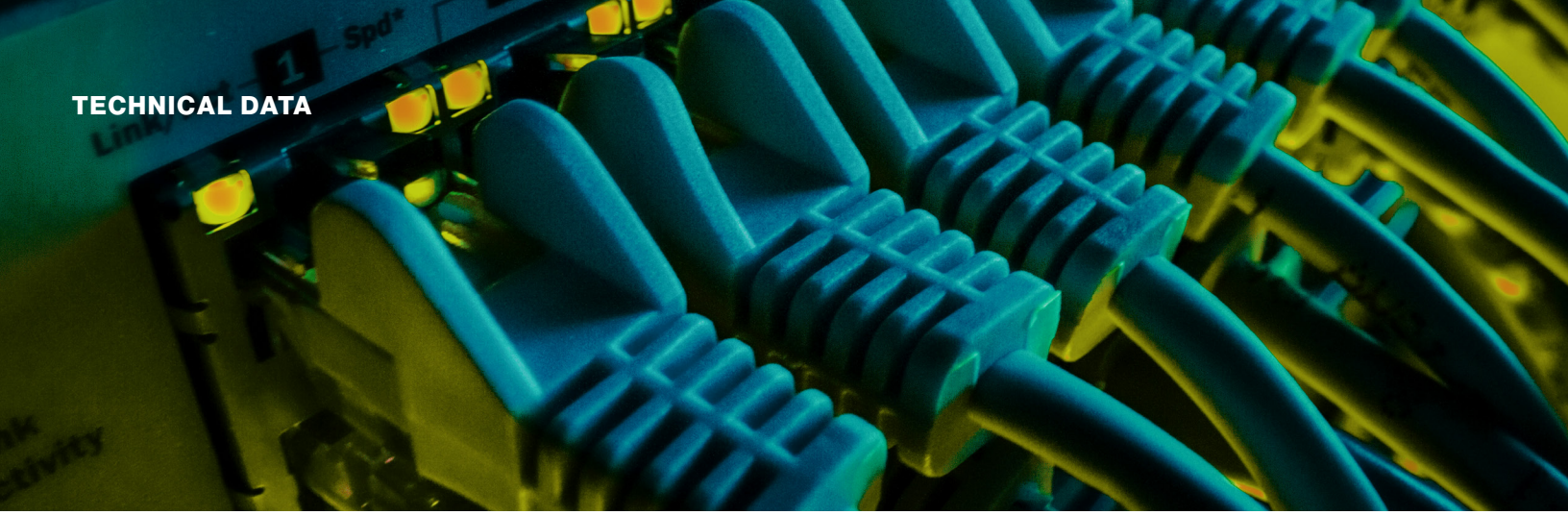
www.naturecool.com

Cargill® Helping the world *thrive*



TECHNICAL DATA

Cargill NatureCool™ 1000 Immersion Cooling Fluid

The biodegradable, high-performing and fire-safe choice for immersion cooling dielectric fluid.

Product Description: Bio-based immersion liquid for use as a dielectric coolant.

Material: >90% natural ester vegetable derived product - renewable raw material source.

Typical Properties:

Property	Typical	Units of Measure	Reference Test Method
Appearance	Teal, free from sediment and suspended matter	N/A	N/A
Viscosity at 40 °C	31	mm2·s-1	ASTM D445
Viscosity at 60 °C	19	mm2·s-1	ASTM D445
Viscosity at 80 °C	12	mm2·s-1	ASTM D445
Fire Point (by COC)	355	°C	ASTM D92
Flash Point (COC)	325	°C	ASTM D92
Density at 20 °C	0.9206	(g/mL)	
Specific Heat at 60 °C	2.3076	(kJ/kg°K)	
Thermal Conductivity at 20 °C	0.1644	(W/mK)	
Volume Expansion at 20 °C	0.00073066	(1/°C)	
Breakdown Voltage	> 35 kV	(kV, 2.5 mm gap)	
Acid Value	< 0.06	(mg KOH/g)	
Biodegradability	> 99	%	
Bio-derived Content	> 90	%	
Global Warming Potential	0	%	

Material Compatibility: It is recommended to verify the chemical compatibility for each application. Some restrictions may exist with materials such as PVC's, certain silicone rubber formulations, and polyurethanes.

Storage: Store indoors in the original, closed container; out of direct sunlight at temperatures between 0 to 40 °C.

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