

ALPHA-1 FLUID®

Fire Resistant Insulating Oil

Alpha-1 fluid is a fire-resistant dielectric fluid that cools transformers better than other fluids. Because of its cooling characteristics, it is the industry standard for retrofilling mineral oil transformers. Made with synthetic hydrocarbon oils, it is the best insulating oil that can be created with current technology. It has both the best heat transfer characteristics and the best low-temperature properties available. Alpha-1 pumps easier, is biodegradable, and is compatible with conventional transformer oil and any insulation that is compatible with oil.

APPLICATIONS: Use Alpha-1 fluid in any application for dielectric fluid where the risk of fire must be minimized. These include power and distribution transformers, transformer-rectifier sets, voltage regulators, and in loadbreak and tapchanger switches.

Alpha-1 Fluid excels in jobs where operating temperatures need to be minimized. With Alpha-1 Fluid's excellent heat transfer characteristics, equipment will run at the lowest temperatures possible. Alpha-1 Fluid has oxidation resistance that is superior to any other biodegradable dielectric oil. This means longer service life. Its electrical characteristics are excellent.

Alpha-1 Fluid is also chosen for use in high temperature transformers, in overloaded transformers, in viscosity-dampened switchgear, and in very low-temperature applications. Alpha-1 Fluid has become the fluid of choice for retrofilling mineral oil filled transformers to upgrade their fire safety.

FEATURES:

- Alpha-1 fluid is **crystal clear** in color.
- Alpha-1 fluid has a **high dielectric strength**.
- Alpha-1 fluid has an **excellent fire safety rating**
- Alpha-1 fluid **cools transformers efficiently**
- Alpha-1 fluid is an **excellent switching medium**
- Alpha-1 fluid is **compatible with** mineral oil and PCB fluids.



Approved

TYPICAL CHARACTERISTICS

Characteristic & ASTM method	Alpha-1 Fluid	ASTM Oil Spec
Fire Point, D92, °C.	308	165
Viscosity, D88, cSt. @ 100 °C	8.48	3
Density @ 20 °C, g/cc	0.83	0.86
Pour Point, D97, °C.	-54	-40
Appearance	clear	yellow
Dielectric Breakdown, D1816, kV	58	56
Dissipation Factor, 100 °C, D924, %	0.001	0.01
Relative Permittivity	2.1	2.2
Acid Value, D664, mg KOH/g	0.01	0.02
Biodegradability (per BOD tests)	yes	some

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