

Description

Dielectric oil based on plant-derived esters, rapidly biodegradable and non-toxic for both aquatic and land ecosystems. It is an increased safety fluid thanks to its high ignition point and the lack of risk factors on its safety sheet.

To be used as a dielectric insulator in transformers, reactors, and electrical switches. Can be used in both new electrical equipment as well as to fill equipment that was previously using a different type of dielectric fluid. Especially for those cases that require a fluid with a high flash point or for use in environmentally sensitive areas.

Properties

- Vegetable oil in a percentage greater than 99%.
- No synthetic antioxidants.
- No silicones, halogens, or any other component that could pose a risk to health or the environment.
- Ignition point over 300 °C. Reduces risk of fires and their consequences.
- Classified as a type K fluid according to IEC 61100.

Quality levels

- IEC 62770

Technical specifications

Physical and chemical properties	UNIT	METHOD	GUARANTEED VALUE	TYPICAL VALUE
Fire point	°C	ASTM D92	>300	362
Flash point	°C	ASTM D92	>250	330
Density at 20 °C	g/ml	ASTM D4052	<1	0.91
Kinematic viscosity at 100 °C	cSt	ASTM D455	<15	8.5
Kinematic viscosity at 40 °C	cSt	ASTM D455	<50	39.2
Kinematic viscosity at 0 °C	cSt	ASTM D455	<500	275.9
Pour point	°C	ASTM D97	<-10	-22
Appearance	--	ASTM D1524	Clear and bright	
Thermal expansion coefficient 0-50 °C	°C ⁻¹	ASTM D1903		0.00072
Thermal conductivity at 25 °C	W/K m	ASTM D2717		0.1691
Specific heat at 25 °C	J/kg	ASTM D2766		1.97
Acidity (neutralisation index)	mgKOH/g	ASTM D974	<0.06	0.05

A safety data sheet is available on request.

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Lubricants

Water content	mg/kg	IEC 60814	<200	150
Oxidation stability				
Total acidity	mgKOH/g	IEC 61125 C	0.6	0.16
Diel. dissipation factor 90 °C, 50 Hz	--	IEC 60247	0.5	0.065
Viscosity increase	%	ASTM D445	<30	10.4

Electrical properties	UNIT	METHOD	GUARANTEED VALUE	TYPICAL VALUE
Dielectric strength	kV	IEC 60156	>35	65
Diel. dissipation factor 90 °C, 50 Hz		IEC 60247	<0.050	0.03
Diel. dissipation factor 25 °C, 50 Hz		ASTM D924		0.002
Electrical conductivity at 25 °C	pS/m	ASTM D2624		3
Dielectric constant at 25 °C		IEC 60247		3.1
Gassing tendency	µl/min	IEC 60628 A		-31.2

Environmental properties	UNIT	METHOD	GUARANTEED VALUE	TYPICAL VALUE
Biodegradability - 28 days	%	OECD 301B	>60	85
Ecotoxicity in aquatic environment	mg/l	OECD 201	>100	>1000
		OECD 202	>100	>1000
		OECD 203	>100	>1000
Ecotoxicity in land environment	mg/kg	OECD 207	>100	>1000
		OECD 208	>100	>1000

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