

### BIO-BASED, FIRE RESISTANT HYDRAULIC FLUID

#### DESCRIPTION:

**EcoSafe® V-200** is the latest addition to a line of hydraulic fluids designed for systems requiring readily biodegradable, nontoxic fluids. It can be used in industrial, marine and mobile service, including high pressure systems, systems with servo valves, and all robotics. It is formulated from select, high-quality, high-VI vegetable oils and additives providing the properties required in hydraulic fluids while satisfying the stringent criteria for biodegradability and toxicity.

**EcoSafe® V-200** provides the excellent anti-wear and film-strength characteristics necessary for hydraulic systems operating under moderate to severe conditions. **EcoSafe® V-200** is compatible with most commonly used elastomers of Buna-N, Viton®, and EPR. Silicone rubber should be avoided. It is Factory Mutual approved as a fire resistant hydraulic fluid. **EcoSafe® V-200** is a USDA certified biobased product in the USDA BioPreferred® program.

#### SPECIFICATIONS:

	Test Method	ESV200
Appearance		Clear, Green
Viscosity @ 40°C	ASTM D445	39.16 cSt
Viscosity @ 100°C	ASTM D445	8.37 cSt
Viscosity @ 100°F	ASTM D445	200 SUS
Viscosity @ 210°F	ASTM D445	54.2 SUS
Viscosity Index	ASTM D2270	198
Pour Point	ASTM D97	-29 C (-20 F)
Specific Gravity @ 25 °C	ASTM D1298	0.94 g/cm <sup>3</sup>
Flash Point	ASTM D92	291 °C (555 °F)
Fire Point	ASTM D92	318 °C (605 °F)
Autoignition Temperature		416 °C (781 °F)
Total Acid Number	ASTM D664	0.25 mgKOH/g
Biobased Determination	ASTM D6866B	57%
Rust Prevention (24h)	ASTM D665B	Pass
Oxidation Stability by Rotating Pressure Vessel	ASTM D2272	50.0 minimum
Foam Tendency/Stability, Sequence I/II/III	ASTM D892	450/0, 40/0, 370/0
Resistivity @ 25 °C	ASTM D1169	43.6 giga ohm-cm
Four-Ball Wear	ASTM D2266	0.38 mm
Hydraulic Pump Wear Test	ASTM D7043	<5 mg