

### FUNCTIONAL V-5019

#### ISO 1900 Synthetic Ester Base Fluid

#### APPLICATION:

**FUNCTIONAL V-5019** is a highly shear stable ISO 1900 base fluid for blending heavy duty gear oils with high biodegradability and biobased content.

#### COMPOSITION:

**FUNCTIONAL V-5019** is a polymeric ester blend of synthetic and biobased esters.

Typical Properties	
Specific Gravity	0.96
Lbs per Gallon	8.0 – 8.1
Flash Point	>200°C / 392°F
Typical Kinematic Viscosity, ASTM D445	1900 cSt at 40°C 160 cSt at 100°C
Typical Viscosity Index, ASTM D2270	200
Pour Point, ASTM D97	-24°C
Color, ASTM D1500	Orange to Amber (< 5.0)
Renewable Content, wt%	60% Approx.
Biodegradability, OECD 301B	71% Approx.

#### TREATMENT LEVEL:

**FUNCTIONAL V-5019** is an ISO 1900 base fluid which may be blended with additives and other base fluids including: saturated and preferably short chain synthetic polyols, diesters, and complex esters, and water insoluble and oil soluble PAG. Vegetable oils and unsaturated esters like TMPTO are generally incompatible.

#### HANDLING:

While warming **FUNCTIONAL V-5019** to about 65°C (150°F) may facilitate pumping and handling, extended storage of this, or any other vegetable oil-derived product, at elevated temperatures is not recommended. Safe handling precautions are the same as those to be used with vegetable oils; see the current Safety Data Sheet.

This Technical Data Sheet and the Safety Data Sheet contain information believed to be accurate and reliable. No warranty is made, however, to information beyond the control of FUNCTIONAL PRODUCTS INC. The engineering and management personnel of the user are responsible for determining the suitability of this or any product for any specific application, and this information is offered to them for that purpose

Issued: 2021.11.03