

FUNCTIONAL SGP-565

Saw Guide Oil Package

APPLICATION:

FUNCTIONAL SGP-565 is a multifunctional package optimized for paraffinic saw guide oils and chain saws including multi-blade saws, gang saws and trimmers used in lumber mill operations. **FUNCTIONAL SGP-565** contains an engineered blend of antiwear and friction modifiers to provide exceptionally low friction and operating temperatures at high speeds when properly formulated. **FUNCTIONAL SGP-565** is also recommended for biodegradable vegetable oil based fluids.

FUNCTIONAL V-178 tackifier at 0.5% treat will provide a sufficiently tacky oil for most operations. When properly formulated with an emulsifier the formulated oil is able to emulsify small amounts of water that enter the oil. If water demulsification is required then a suitable demulsifier such as should be added to the formulated oil. Contact Functional Products Inc. for more information.

COMPOSITION:

FUNCTIONAL SGP-565 does not contain halogens, or heavy metals.

Typical Properties	
Appearance	Amber liquid
Color (ASTM D1500)	1.5
Odor	Mild
Specific Gravity	0.97
Lbs. per Gallon	8.1
Flash Point	146°C / 295°F
Kinematic Viscosity (ASTM D445)	94 cSt @ 40°C
Elemental Analysis	3.8% Phosphorus
Performance (1.5wt% in formulated tacky ISO 100 Group II Oil)	
Kinematic Viscosity (ASTM D445)	104.5 cSt @ 40°C
Turbine Oil Rust (ASTM D665)	Pass
Copper Corrosion (ASTM D130, 3hrs)	1a
4-ball wear at 20 kgf, mm (ASTM D4172)	0.45 mm; CoF = 0.0823
Performance (1.5wt% in ISO 32 Vegetable Oil only)	
Turbine Oil Rust (ASTM D665)	Pass
Copper Corrosion (ASTM D130, 3hrs)	1a
4-ball wear at 20 kgf, (ASTM D4172)	0.27 mm; 0.0663 CoF

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: 2020.05.22

FUNCTIONAL PRODUCTS INC.

Innovative Chemistry for Lubricants

Technical Data Sheet

TREATMENT LEVEL:

The recommended treatment level of **FUNCTIONAL SGP-565** is 1.5wt% in vegetable oils, Group II, Group III, and white oils.

HANDLING:

Store in a cool, dry area. Review the current Safety Data Sheet before use and use proper protective equipment. **FUNCTIONAL SGP-565** is not hazardous when used as recommended.

MINERAL OIL FORMULATION GUIDE:

FUNCTIONAL SGP-565's performance was designed and balanced for vegetable base oils and paraffinic base oils. The recommended tackifier is **Functional V-178** in Group II oils and **FUNCTIONAL V-584** for vegetable oils. It is not advisable to use Group I or naphthenic oils in forestry applications as performance may vary from lower solvency paraffinic oils.

	ISO 46	ISO 68	ISO 100	ISO 150
Tackiness 50 - 65 DS*	1.5% SGP-565 0.5% V-178 220N Base Oil	1.5% SGP-565 0.5% V-178 350N Base Oil	1.5% SGP-565 0.5% V-178 500N Base Oil	1.5% SGP-565 0.5% V-178 600N Base Oil

* **DS** indicates the tackiness level determined by Functional Products Ductless Siphon Tackiness Test at room temperature.

It is up to the user to determine the exact formulation to meet the required performance targets.

BIODEGRADABLE VEGETABLE OIL FORMULATION GUIDE:

A vegetable oil such as canola is ideal for formulating environmentally friendly biodegradable saw guide and chainsaw oils. Canola oil can be thickened to the desired ISO grade by using **FUNCTIONAL V-521**.

	ISO 46	ISO 68	ISO 100	ISO 150
Tackiness 20 - 40 DS*	1.5% SGP-565 2 - 4% V-584 4 wt% V-521 Canola Oil	1.5% SGP-565 2 - 4% V-584 8 wt% V-521 Canola Oil	1.5% SGP-565 2 - 4% V-584 14 wt% V-521 Canola Oil	1.5% SGP-565 2 - 4% V-584 20 wt% V-521 Canola Oil

It is up to the user to determine the exact formulation to meet the required performance targets.

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: 2020.05.22