## FUNCTIONAL PRODUCTS INC.

**Innovative Chemistry for Lubricants** 

### **Technical Data Sheet**

## **FUNCTIONAL BC-10**

### **Bar and Chain Oil Additive Package for Mineral Oils**

#### **APPLICATION:**

**FUNCTIONAL BC-10** is a multifunctional ashless package optimized for mineral oil-based chain saws including multi-blade saws, gang saws and trimmers used in lumber mill operations. **FUNCTIONAL BC-10** contains an engineered blend of antiwear and friction modifiers, ferrous corrosion inhibitor, and a pour point depressant to provide exceptional performance even in cold climates. To help prevent sling-off of the fluid from the bar or chain a tackifier should be used. 0.5%w FUNCTIONAL V-178 is recommended.

#### **COMPOSITION:**

**FUNCTIONAL BC-10** is a blend of phosphorus and sulfur based additives and does not contain zinc, halogens, or heavy metals.

Typical Properties				
Appearance	Dark brown Liquid			
Color (ASTM D1500)	8.0			
Odor	Strong			
Specific Gravity	0.948			
Lbs. per Gallon	7.90			
Flash Point	121°C / 250°F			
Kinematic Viscosity (ASTM D445)	545 cSt @ 40°C, 90 cSt @ 100°C			
Elemental Analysis	6.4% Sulfur; 1.2% phosphorus			

#### TREATMENT LEVEL:

The recommended treatment level of **FUNCTIONAL BC-10** is 1.5wt% in mineral oil-based formulations. A tackifier is recommended such as 0.5% V-178. See next page for recommended formulations.

#### **HANDLING:**

Store in a cool, dry area. Review the current Safety Data Sheet before use and use proper protective equipment. **FUNCTIONAL BC-10** provides no hazards at recommended treat in a formulation.

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: 2021.06.07

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#### **MINERAL OIL FORMULATION GUIDE:**

If using different base stocks (naphthenic, bright stock, recycled) for a saw guide oil or bar & chain oil then consult Functional Products for testing and optimization. Performance depends on base oil composition.

FUNCTIONAL V-178 tackifier at 0.5wt% or FUNCTIONAL V-176 at 0.75wt% perform best.

	Tacky	Tacky	Tacky
	ISO 46	ISO 68	ISO 100
220N Group II	98.0%	53.8%	8%
600N Group II		44.2%	90.0%
FUNCTIONAL BC-10 (package)	1.5%	1.5%	1.5%
FUNCTIONAL V-178 (tackifier)	0.5%	0.5%	0.5%

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