

VCS 033 ANTIWEAR ADDITIVE AND RUST INHIBITOR

VCS 033 is a multifunctional additive which delivers antiwear and rust inhibiting properties to suitable oil formulations. This product also has a positive effect on the demulsibility properties of the finished lubricant, especially in a highly contaminated environment.

FEATURES

- Ideal for oil-based formulations including neat oil MWF
- Performance in a fluid may vary depending on the base oil and other additives present in the finished formulation

APPLICATION

VCS 033 has a recommended treat level 0.02 - 5.0 wt.% depending on the operation

CHARACTERISTICS

Physical	Typical
Flash Point, ASTM D92	90°C min
Neutralization Number, ASTM D974	160 mg KOH/g
Specific Gravity @15.6 °C, ASTM D1298	0.94
Viscosity @ 40°C, ASTM D7042	1200 cSt
Viscosity @ 100°C, ASTM D7042	90 cSt
Chemical	
Nitrogen, ASTM D6481	3.0%
Phosphorus, ASTM D6481	7.0%

PERFORMANCE

Base Oil		Group I ISO 32	Group I ISO 32	Group I ISO 32	Group II ISO 22	Group II ISO 22
% VCS 033		0.00	1.00	0.03	0.20	0.03
Four Ball Wear 20 kg, 1800 rpm, 1 hr	ASTM D2266	0.75 mm	0.395	–	0.42	–
Rust Protection, 4 hrs	ASTM D665 B	Fail	Pass	Pass	Pass	Pass
Rust Protection, 24 hrs			Pass	Pass	Pass	Pass

RECOMMENDED BLENDING, HANDLING & STORAGE CONDITIONS

VCS 033 can be blended with mechanical or in-line blending equipment at temperatures not above 180°F (82°C) or below 60°F (16°C). The additive can be heated to 195°F (90°C) for unloading or transfer. Should not be stored for long periods at temperatures over 100°F (38°C)

NOTE: Values indicated are typical physical properties and are not specification limits. Seller offers no warranty, expressed or implied, concerning the suitability of this product for any particular purpose.

