

## Product Data Sheet

### **Activa MTS Premium**

#### **Description and Applications**

**Saheli Activa MTS Premium (Machine Tool and Slideway)** series are premium quality multifunctional oils developed for lubrication of slideways, hydraulic systems and gear boxes of machine tools. Their outstanding frictional properties and ability to readily separate from aqueous cutting fluids reduce “stick-slip” problems and lead to improved surface finish and dimensional accuracy of workpieces.

**Saheli Activa MTS Premium** also possesses excellent anti-wear and EP characteristics, adhesiveness filterability and also provides superior protection against oil degradation and corrosion of machine tool surfaces even in presence of aqueous cutting fluids.

**Saheli Activa MTS Premium’s** multifunctional performance characteristics combined with its high thermal and oxidative stability and load-carrying ability reduces the potential of misapplication and assures excellent equipment performance.

**Saheli Activa MTS Premium** is available in four viscosity grades viz. **ISO VG 32, 68, 100 and 220** and exceed the performance requirements of Cincinnati Machine, DIN 51524 part 2, AFNOR NFE 48-603 (HM), DIN 51517 part 3 and US Steel 224.

#### **Features and Benefits**

- Low frictional properties reduce chatter and stick-slip of slides and ways and lead to improved surface finish and dimensional accuracy of workpieces.
- Excellent protection against rust and corrosion even in the presence of aqueous cutting fluids.
- Good filterability provides easy circulation through filters and reduces stick-slip, chatter and wear.
- Excellent demulsibility provides ready separation from soluble cutting fluids and leads to prolonged coolant life and reduced cost of replacement and disposal.
- Superior thermal and oxidative stability reduces deposit and sludge formation and provide long lubricant life.
- Excellent anti-wear and EP properties provide high level of protection for slideways, gears, bearings and hydraulic system components.
- The Multifunctional performance characteristics reduce the potential of misapplication and assure excellent equipment performance.

#### **Applications**

- Machine tool slides and ways, tables and feed mechanism of lathes, shapers, grinders and milling machines. **Saheli Activa Premium 32, 68 or 100** are recommended for horizontal slide lubrication and **Saheli Activa Premium 220** is recommended for vertical or inclined slides and ways.
- Machine tool hydraulic systems particularly for machines having combined hydraulic and slideway lubrication system.
- Machine tool gearboxes.

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#### Specifications

- Cincinnati Machine P-47 (ISO VG 68), P-50 (ISO VG 220), P-53 (ISO VG 32)
- DIN 51524 Part 2-HLP
- ISO 11158 HM (excepts ISO VG 220)
- DIN 51517 part 3 (ISO VG 220)
- US Steel 224 (ISO VG 220)

Test Parameters	Test Method	Typical Results				
		32	68	100	220	
<b>ISO VG</b>						
Density @ 15°C gm/cm3	ASTM D1298	0.870	0.881	0.886	0.894	
Viscosity Index	ASTM D2270	100	99	97	96	
Viscosity @ 40°C (cSt)	ASTM D 445	31.2	68.3	98.3	221	
Pour Point °C	ASTM D 97	-21	-15	-12	-6	
Flash Point (COC) °C	ASTM D 92	202	218	230	256	
Rust Test	ASTM D 665A/B	Pass	Pass	Pass	Pass	
Copper Corrosion	ASTM D 130	1b	1b	1b	1b	
Stick-Slip, Ratio	ASTM CM	0.76	0.76	-	0.73	
Thermal Stability	CM-Procedure B	Pass	Pass	-	Pass	
Acid Number, mgKOH/g	ASTM D 974	0.40	0.41	0.42	0.44	
FZG EP Gear, pass stage	ASTM D 5182	12	12	12	12	
Emulsion Test 30 Min. Max	@54°C	ASTM D 1401	Pass	Pass	-	-
	@82°C		-	-	Pass	Pass
Four Ball Wear, Scar 20KG, 1800rpm, 1hr, @54°C, mm	ASTM D 4172	0.37	0.29		0.26	