

## Autonics AES-X - Spindle Oil

High-Performance Precision Lubricant for Textile Machinery Spindle Bearings

PRODUCT CODE: AES-X (10 & 22)

PRODUCT TYPE: Textile Machinery Spindle Oil

### 1. PRODUCT DESCRIPTION

**Autonics AES-X - Spindle Oil** is a premium-grade, high-performance precision lubricant specifically formulated for the high-speed spindle bearings of modern textile machinery. Featuring a crystal-clear, transparent liquid appearance, it is engineered using ultra-refined light base oils blended with specialized friction-reducing and anti-wear chemistry. It ensures ultra-smooth operation at extreme rotational velocities while maintaining exceptional oil film integrity.

### 2. FEATURES AND BENEFITS

- Low Friction & Wear Protection:** Minimizes mechanical friction and wear on ultra-high-speed spindles, prolonging machinery life.
- Oxidation & Thermal Stability:** Resists thermal breakdown and oxidation at intense operating speeds, preventing sludge formation.
- Rust & Corrosion Resistance:** Provides premium protection for precision components, even under humid textile plant conditions.
- Low Foaming Characteristics:** Eliminates foam generation at high velocities, preventing oil loss and ensuring stable pressure.
- Superior System Cleanliness:** Resists fiber lint and environmental contaminants to prevent critical equipment blockages.
- Seal & Component Compatibility:** Fully compatible with elastomeric seals and precision synthetic bearing materials.

### 3. APPLICATION GUIDELINES

- Explicitly designed for high-speed spindle bearings in spinning mills, yarn spinning machines, and rotor spinning equipment.
- Optimized for precision textile machineries requiring specialized thin-film lubrication to eliminate overheating.
- Ideal for any manufacturing plant precision machinery where low friction, low viscosity, and long service life are critical.

### 4. TECHNICAL SPECIFICATIONS

PROPERTIES	METHOD	UNIT	AES-X 10	AES-X 22
ISO Viscosity Grade	—	—	10	22
Kinematic Viscosity @ 40°C	ASTM D445	mm <sup>2</sup> /s	10	22
Kinematic Viscosity @ 100°C	ASTM D445	mm <sup>2</sup> /s	2.65	4.30
Viscosity Index (VI)	ASTM D2270	—	90	96
Flash Point	ASTM D92	°C	180	191
Pour Point	ASTM D97	°C	-30	-30
Appearance	Visual	—	Clear Transparent Liquid	

### 5. SAFETY, HEALTH & HANDLING INFORMATION

**Precautions & First Aid:** Always wear proper personal protective equipment (PPE) such as protective gloves and goggles during handling. In case of skin contact, wash thoroughly with soap and water. In case of eye contact, rinse immediately with clean water and seek medical attention. If ingested, seek immediate medical attention; \*\*do not induce vomiting\*\*. Prolonged or repeated exposure may cause minor skin irritation.

**Storage & Formats:** Keep containers tightly sealed in a cool, clean, and dry environment. Formulated for industrial supply across national textile manufacturing hubs.

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