



## Mobil Avrex S Turbo 256

ExxonMobil Aviation, Switzerland

Aircraft Type Gas Turbine Lubricant

### Product Description

Mobil Avrex S Turbo 256 gas turbine lubricant is a combination of a highly stable synthetic base fluid and a unique chemical additive package. The combination provides outstanding thermal and oxidative stability to resist deterioration and deposit formation in both the liquid and vapor phases, as well as excellent resistance to foaming.

The effective operating range of Mobil Avrex S Turbo 256 is between  $-54^{\circ}\text{C}$  and  $176^{\circ}\text{C}$  ( $-65^{\circ}\text{F}$  and  $350^{\circ}\text{F}$ ). The pour point is below  $-60^{\circ}\text{C}$  ( $-75^{\circ}\text{F}$ ). The product has a high specific heat in order to ensure good heat transfer from oil-cooled engine parts. In extensive laboratory testing and in-flight performance, Mobil Avrex S Turbo 256 exhibits excellent bulk oil stability at temperatures up to  $176^{\circ}\text{C}$  ( $350^{\circ}\text{F}$ ). The evaporation rate at these temperatures is low enough to prevent excessive loss of volume.

### Application

Mobil Avrex S Turbo 256 is recommended for aircraft gas turbine engines in commercial and military service, particularly where start-up temperatures are below  $-40^{\circ}\text{C}$  ( $-40^{\circ}\text{F}$ ). The product is approved against U.S. Military Specification MIL-PRF-7808, Grade 3, and by the following engine and accessory manufacturers:

#### Engine and Accessory Approvals

Approved in equipment specifying 3 centistokes, MIL-PRF-7808 (latest revision) lubricants. Mobil Avrex S Turbo 256 is compatible with other synthetic gas turbine lubricants meeting MIL-PRF-7808 or MIL-PRF-23699 Specifications. However, mixing with other products is not recommended because the blend would result in some loss of the performance characteristics of Mobil Avrex S Turbo 256. The product is compatible with all metals used in gas turbine construction, as well as with F rubber (Viton A), H rubber (Buna N), and FVMQ rubber (fluorosilicone).

### Advantages

Uniquely suited for use when extreme low temperatures restrict the use of higher viscosity engine oils.

### Typical Properties

Avrex S Turbo 256		MIL-PRF-7808 Grade 3 Requirements
Product Number	49423-7	-
Viscosity		
cSt at $100^{\circ}\text{C}$ ( $212^{\circ}\text{F}$ )	3.3	3.0 min
cSt at $40^{\circ}\text{C}$ ( $104^{\circ}\text{F}$ )	13.3	11.0 min
cSt at $-51^{\circ}\text{C}$ ( $-60^{\circ}\text{F}$ ) after 3 hr	10,459	17,000 max
cSt at $-51^{\circ}\text{C}$ ( $-60^{\circ}\text{F}$ ) after 72 hr	10,495	17,000 max
Flash Point, $^{\circ}\text{C}$ ( $^{\circ}\text{F}$ )	224 (435)	210 (410) min
Fire Point, $^{\circ}\text{C}$ ( $^{\circ}\text{F}$ )	256 (493)	-
Pour Point, $^{\circ}\text{C}$ ( $^{\circ}\text{F}$ )	$-60$ ( $-75$ )	-
Specific Gravity, 15/15 $^{\circ}\text{C}$ (60/60 $^{\circ}\text{F}$ )	0.9634	-
TAN, mg KOH/g	0.03	0.30 max
Evaporation Loss, %		
6.5 hr at $204^{\circ}\text{C}$ ( $400^{\circ}\text{F}$ )	19.6	30 max
Foam, volume/collapse time		

Avrex S Turbo 256		MIL-PRF-7808 Grade 3 Requirements
Static, ml/sec	20/6	100/60 max
Dynamic, ml/sec	pass	100/60 max
Rubber Swell, %		
H Rubber, 168 hr at 70°C (158°F)	28.6	12-35
F Rubber, 72 hr at 175°C (347°F)	19.1	2-25
FS Rubber, 72 hr at 150°C (302°F)	10.6	2-25

## Health and Safety

Based on available information, this product is not expected to produce adverse effects on health when used for the intended application and the recommendations provided in the Material Safety Data Sheet (MSDS) are followed. MSDS's are available upon request through your sales contract office, or via the Internet. This product should not be used for purposes other than its intended use. If disposing of used product, take care to protect the environment.

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Due to continual product research and development, the information contained herein is subject to change without notification. Typical Properties may vary slightly.

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