

# Aviation Oil EE

## Ashless Dispersant Oil for Aircraft Piston Engines

Aviation Oil EE is the brand name of a premium quality line of ashless-dispersant piston engine oils. Formulated with select highly refined base oils together with ashless-dispersant and anti-oxidant additives, Aviation Oil EE is designed to satisfy the requirements of all major engine manufacturers under all climatic conditions.

Cleaner engines and reduced wear are just two of the performance benefits gained through use of Aviation Oil EE. Through the action of the ashless-dispersant additive, solid contaminants remain suspended in the oil and are not allowed to accumulate as sludge or deposits on engine surfaces. The suspended contaminants are non-abrasive and circulate harmlessly in the oil until they are removed when the oil is drained. As a result, Aviation Oil EE produces significantly lower ring zone deposits, varnish, and sludge than a straight mineral oil.

### Features & Advantages

Aviation Oil EE, an ashless-dispersant piston engine oil, offers the following features and advantages:

- Meets SAE J1899
- All grades approved against MIL-L-22851D/J1899
- Appropriate viscosity grades approved for Pratt & Whitney (Spec No. 1183), Teledyne Continental Motors (MHS-24), Textron Lycoming (Spec No. 301F) engines
- Appropriate viscosity grades recommended for Curtis-Wright, Franklin, and Rolls-Royce engines
- Lower ring zone deposits, varnish, sludge than straight mineral oils
- Compatible with other aircraft piston engine oils – both straight mineral or ashless-dispersant
- Multi-grades reduce oil consumption in most engines and provide excellent performance over a wide range of ambient temperatures

### Typical Characteristics\*

Aviation Oil EE	80	100	120
SAE Grade	40	50	60
Military Grade	Type III	-	Type II
Gravity, °API	28.2	27.8	27.2
Gravity, Specific at 15.6°C (60°F)	0.886	0.888	0.892
Viscosity, Kinematic			
cSt at 40°C	130	197	256
cSt at 100°C	15.2	20.0	23.9
Viscosity index	121	118	117
Flash point, COC,			
°C	250	253	259
°F	482	487	498
Pour point,			
°C	-30	-27	-24
°F	-22	-17	-11
Ash content, mass %	nil	nil	nil
Acid No., mg KOH/g	0.02	0.02	0.04
Sulfur, mass %	0.40	0.50	0.55

\* Physical properties are listed in the table. Values not identified as maximum or minimum are typical and may vary within modest ranges.



## Grades

To meet a wide range of requirements, Aviation Oil EE is available in three single-viscosity grades (80, 100, and 120) .

## Performance

Extensive flight tests have demonstrated the high performance level of Aviation Oil EE. Engine protection and excellent lubricating properties have been proven in thousands of flying hours. All five grades are approved against U.S. Military Specification MIL-L-22851D, as well as the SAE J1899 specification which replaced it. Aviation Oil EE, in the appropriate viscosity grade, is recommended for Pratt & Whitney, Curtiss-Wright, Rolls-Royce, Continental, Franklin, and Lycoming piston engines.

## Compatibility

Aviation Oil EE is compatible with non-dispersant mineral oil as well as with other ashless-dispersant oils that meet the requirements of MIL-L-22851D/SAE J1899. It can also be used in high-time engines that have previously used a straight mineral oil. If this is done, however, it is advisable to carry out the oil-screen inspection recommended by the engine manufacturer.

## Run-In Procedure

New or newly overhauled aircraft engines should be broken in according to the engine builder's recommended procedure. Many major engine manufacturers advise running in on straight mineral oil for the first 25 to 50 hours of operation. In all cases, however, the engine manufacturer's recommendations should be followed, since the run-in procedure can vary from engine to engine.

## Health and Safety

Based on available toxicological information, it has been determined that this product poses no significant health risk when used and handled properly. Information on use and handling, as well as health and safety information, can be found in the Material Safety Data Sheet which can be obtained from your local distributor; via the Internet on <http://www.exxonmobil.com>; or by calling 1-800-662-4525 and selecting prompt 2.

For additional technical information or to identify the nearest U.S. ExxonMobil supply source, call 1-800-662-4525