

# ROYCO® 581

## CORROSION PREVENTATIVE COMPOUND CONCENTRATE FOR AIRCRAFT ENGINES

**ROYCO® 581** is a concentrated rust and corrosion preventative oil commonly used to preserve aircraft reciprocating and turbine engines. The ashless anti corrosion additive package and the highly refined petroleum base oils protect the engine by minimizing the effects of humidity and neutralizing the acidic components of engine oil oxidation and combustion by-products.

### APPLICATIONS

The engine to be preserved should be filled to normal capacity with the diluted preservative oil and then run at idle until the engine reaches normal operating temperature (approx. 10 - 15 minutes.) After shutdown it is recommended that the concentrated preservative compound be sprayed into the upper cylinder head areas to coat the valves, rockers, etc

**ROYCO® 581** is normally used as a concentrated engine oil additive for the internal preservation of engines or engine parts and accessories during moderate outdoor to long term indoor storage periods. Diluted with three parts engine oil (to MIL-L-6082 for piston engines - which has been superseded by SAE J1966 - or to MIL-PRF-6081 for turbine engines) the engine is then preserved for storage. This product can also be used as a "fly-away" oil for reciprocating engines however operation of engines preserved with the diluted material should be limited to a maximum of fifty hours before oil change.

This additive has also been used successfully in the preservation of industrial gasoline and diesel fuelled engines as well as preservation of industrial gearboxes and machine tools.

**NOTE:** Turbine engines using synthetic engine lubricating oils should use a MIL-C-8188 corrosion preventative concentrate.

### FEATURES AND BENEFITS

#### Features

- Offers outstanding rust and corrosion prevention
- Ashless additive technology
- Highly refined base-oils

#### Benefits

- Protects and preserves turbojets and reciprocating engines by minimizing the effects of acidic components of combustion by-products

### APPROVALS AND SPECIFICATIONS

**ROYCO® 581** meets all requirements of and is qualified to MIL-SPEC: MIL-C-6529C Notice 2, Type I.

**ROYCO® 581** is designated a preservative under Mil-STD-2073-1C.



**TYPICAL PROPERTIES**

PROPERTIES	TEST METHOD	ROYCO® 581
API Gravity, 60/60 °F	ASTM D287	25.05
High & Low Temp. Stability	MIL-C-6529	Pass
Kinematic Viscosity, cSt		
@ 100 °F	ASTM D445	279
@ 210 °F		21.54
Pour Point, °F	ASTM D97	0
Flash Point, °F	ASTM D92	544
Carbon Residue (MCRT), % wt.	ASTM D189	0.22
Volatility, Weight Loss, %		0.4
Viscosity after Test, 100°F, cSt		270
Viscosity after Test, 210°F, cSt	FTM 3480	21.2
Viscosity after Test, 210°F, SUS		103.3
Viscosity Index after Test		95
Precipitation Number, ml	ASTM 91	0.0
Ash, % wt.	ASTM D482	0.009
HBr Neutralization Test	MIL-C-6529	Pass
Lead Corrosion, 300°F, 4 hrs., mg/in <sup>2</sup>	FTM 5321	12.2
Copper Corrosion, 100°C, 3 hrs	ASTM D-130	1B slight tarnish
Rust Protection, Humidity Cabinet, 120°F, 336 hrs	MIL-C-6529	Pass
API Gravity (Mil-C-6529C Type II)	ASTM D287	27.1

**PACKAGING**

**ROYCO® 581** is available in 5-gallon pails and 55-gallon drums. Other package sizes may be available on special request.



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