

# ROYCO® 81MS SYNTHETIC HIGH TEMPERATURE LUBRICANT MOLYBDENUM DISULFIDE, SILICONE BASE

**ROYCO® 81MS** is a homogeneous, high-temperature semi-fluid lubricant formulated with lubricant-grade micro-fine molybdenum disulfide (  $\text{MoS}_2$  ) and thermally stable methyl phenyl polysiloxane synthetic oil. This gray-black mixture may be applied via paint brush, squirt can, or pressure applicator. The  $\text{MoS}_2$  particles adhere and penetrate metal surfaces thereby providing lubrication and anti-seize protection even when the oil component is removed.

## APPLICATIONS

**ROYCO® 81MS** is designed for use on slow speed sliding metal on metal surfaces operating at temperatures up to 400°C (~750°F), as found in aircraft gas turbine engines. ROYCO® 81MS may also be used as an anti-seize compound on threaded parts at temperatures up to 760°C (~1400°F). STIR WELL IMMEDIATELY BEFORE USING.

## FEATURES AND BENEFITS

### Features

- **High viscosity index silicone fluid**
- **Micro-fine molybdenum disulfide**
- **High thermal/oxidative stability**

### Benefits

- **Very wide operating temperature range - outstanding high temperature performance**
- **Excellent film protection at high temperatures**
- **Protects sliding steel surfaces even under heavily-loaded conditions. Minimizes excessive wear, even under shock loading.**
- **Extended intervals between re-lubrication**

## APPROVALS AND SPECIFICATIONS

**ROYCO® 81MS** meets all requirements of DOD-L-25681D Notice 2, NATO symbol S-1735.

**TYPICAL PROPERTIES**

PROPERTIES	TEST METHOD	ROYCO® 64
Base Fluid Properties		
Viscosity, cSt (mm <sup>2</sup> /sec)		
@ 100°C	ASTM D445	16
@ 40°C		71
Flash Point, °C (°F)	ASTM D92	338 (640)
Color	ASTM D1500	0.4
Molybdenum Disulfide, wt. %	SAE-AMS-M-7866	50
Materials	Specification	Conform

**LIMITATIONS**

The persistence of the molybdenum disulfide and the high penetrating properties of the synthetic base oil make this material difficult to remove from surfaces. The material may also stain yellow metals. Use of ROYCO® 81MS on antifriction bearings has not been investigated.

**PACKAGING**

**ROYCO® 81MS** is available in 24 x 1.75 pound cans. Other package sizes may be available on request.



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