



TECHNICAL DATA SHEET

SANTOLUBE® MCS-293

High-temperature Radiation-resistant Base Fluid

SANTOLUBE® MCS-293 is a polyphenyl thioether with excellent low and high-temperature properties and extraordinary resistance to degradation from heat, oxygen, radiation, and chemical attack. It is therefore well-suited for designing lubricants for use in applications that experience extreme and adverse conditions. SANTOLUBE® MCS-293 is compatible with most metals, plastics, and elastomers and is essentially nontoxic, especially when proper hygienic practices are employed.

ATTRIBUTES

- ◆ Good Low Temperature Properties
- ◆ Resists Chemical Attack
- ◆ Resists Oxidation and Radiation Degradation
- ◆ Prevents Noise and Fretting Wear
- ◆ High Thermal Stability
- ◆ High Surface Tension
- ◆ Excellent Resistance to Rust and Corrosion
- ◆ Protects Precious Metals

TYPICAL PHYSICAL AND PERFORMANCE PROPERTIES¹

Appearance	Clear Light Yellow Liquid	Corrosion and Oxidation Test - ASTM D 4636 (FTM 791-5307/5308) [600°C, 48h]	
Viscosity at 40°C – ASTM D 445, cSt	25.2	<i>TAN Change</i>	0.1
Viscosity at 100°C – ASTM D 445, CSt	4.1	<i>Viscosity Change at 40°C</i>	None
Pour Point – ASTM D 97, °C	-29	<i>Metal Weight Change, mg</i>	
Flash point – ASTM D 92, °C	229	Steel	0.04
Auto-ignition Temperature, °C	504	Magnesium	0.03
Refractive Index at 25°C	1.671	Titanium	0.04
Thermal Stability up to °C	329	Aluminum	0.04
Surface Tension at 100°F, Dyne/cm	50	Precious Metals Compatibility	Pass
Elastomer Compatibility – ASTM D 471 [Viton, Silicone, Teflon, Buna N]	Pass	Metals (Steel/Copper) Compatibility	Pass

¹ Please note that these data are typical of samples tested in the laboratory and are not to be considered as sales specifications.