



# Product Information

www.miller-stephenson.com

## TriboSys™ MS-381HC/383H Connector Lubricant

### Description:

By combining the superior lubricating qualities of Polyphenyl Ether with the cleaning power of a hydrofluoroether azeotrope, Miller-Stephenson has created Connector Lubricant, a formulation that provides the most advanced total treatment for connectors.

### Advantages:

- Cleans, lubricates and protects multi-pin connectors
- Reduces insertion forces
- Greatly increases mating cycles (especially important where high pin counts are involved)
- Extends connector life by preventing corrosion and galling
- Removes contaminants and oxides.
- Is non-migrating-contains no silicones.
- Non ozone depleting
- Available with an UV (ultraviolet) indicator
- No interference in electrical continuity
- Nonflammable
- NSN-6850-01-538-3496 (MS-383H)
- RoHS Compliant

VOC content of MS-381HC.....522 gms/l  
VOC content of MS-383H.....699 gms/l

The active ingredient of Connector Lubricant is a six (6) ring polyphenyl ether lubricant. This lubricant will help protect metal connector surfaces from excessive wear, when subjected to hundreds of mating cycles, thereby increasing the life of the connectors. It will also reduce insertion forces and provide corrosion protection in harsh environments.

Polyphenyl ethers (PPE) are very viscous fluids and only a very thin film is required. Connector Lubricant MS-381HC/383H is a 2% PPE concentration is at the proper concentration for connectors operating at room temperatures where there is little or no vibration. Higher concentrations are available in Bulk formulations.

### Maximum Operating Temperatures

Estimated 20 year film life 230°F/110°C  
Estimated 5 year film life 257°F/125°C

**Note:** Higher temperatures result in shorter film life.

### Physical Properties: 6-ring Polyphenyl Ether

**Surface Tension** 54.2 dynes/cm

**Evaporation Loss** (ASTMD-972) 6.5 hrs.

400°F/204°C @ 760mm 0.04%  
500°F/260°C @ 760mm 0.50%  
500°F/260°C @ 140mm 1.10%

<b>Oxidation – Corrosion</b>		<u>wt.change</u>	<u>500°F/</u>	<u>600°F/</u>
		<u>of metals</u>	<u>260°C</u>	<u>316°C</u>
(FS-791	Magnesium	-0.01		+0.12
Method 5308.2,	Aluminum	-0.02		0
48 hrs. @ temp.,	Titanium	-0.01		+0.01
5.5 hr. air flow)	Steel	-0.01		+0.03
	Copper	+0.02		-0.20
	Silver	-0.01		+0.89

**Thermal Stability** 836°F/447°C

**Low-Temperature Performance:** Performs consistently over a wide range of low temperatures to – 20°C.

### Electrical Properties: 6-ring Polyphenyl Ether

**Dielectric Constant** 60cy 1kc 10kc 100kc  
(@ 77°F/25°C) 4.54 4.54 4.55 4.53

**Resistivity @ 77°F/25°C @ 500VDC** 1.56 x 10<sup>14</sup>ohm-cm

**Dielectric Strength** 43 Kv

**Safety Data Sheets are available upon request.**

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