

# SEV-PLUS SILICON DSF 50

SILICON FLUIDS

327400201

**DYADE**  
LUBRICANTS



## TECHNICAL GRADE DIMETHYL SILICONE FLUIDS

Dimethyl Silicone Fluids are clear, odourless and inert fluids made of dimethyl polysiloxane. The viscosity of these fluids is tightly controlled within +5% of the desired range and is available in a viscosity range from 20 cps to 300,000 cps. Unlike other fluids, these fluids have a chemical structure that has a backbone of silicon-oxygen linkage, which makes them more resilient to temperature extremes, oxidation, shear stresses and chemicals compared to similar organic fluids. Additionally, they exhibit good dielectric properties. Dimethyl Silicone fluids are soluble in hydrocarbon solvents, chlorinated hydrocarbon solvents and low molecular weight aromatic solvents. However, they have limited solubility in alcohols, ethers, acetone, and glycols, with solubility depending on viscosity. Silicone fluids find applications in a wide range of industries, including cosmetics and pharmaceuticals (such as creams, lotions, hair care products, and contraceptives), polishes for high-gloss automobile and furniture finishes, release agents for plastic, rubber, and non-ferrous die casting, liquid springs and shock absorbers,

heat transfer and power transmission, rust prevention, hydraulic and dielectric fluids, damping, water repellence for aerated cement slabs/bricks, paint and coating additives, lubricants, and textile finishing.

| PROPERTY                              | METHOD | VALUE                           |
|---------------------------------------|--------|---------------------------------|
| Appearance, clarity and odour         |        | Colourless, clear and odourless |
| Nominal viscosity @ 25 °C, cPs        |        | 50                              |
| Refractive index @ 25 °C              |        | 1.402                           |
| Flash point C.O.C, °C                 |        | 280                             |
| Pour point, °C                        |        | -55                             |
| Auto ignition temperature, °C         |        | >400                            |
| Dielectric Strength @ 25°C, volts/mil |        | 400                             |
| Volume Resistivity @ 25°C, ohm-cm     |        | 1.0x10 <sup>15</sup>            |

## CATEGORY

- Industry Specific

## BENEFITS

- The unique chemical structure permits silicone fluids to perform in applications where other fluids are not suitable. Low viscosity/temperature coefficient: they exhibit a smaller degree of change over a wider temperature range than petroleum oils (over 50 times more constant)
- Thermal stability: silicone fluids show excellent stability when exposed to high temperatures. They are stable from -57 °C to 200 °C for extended periods and can exceed this for short periods
- Oxidation stability: oxidation stability of these fluids is excellent up to 200 °C where sludging is eliminated that occurs with mineral oils above 150 °C
- Chemical inertness: they are chemically inert to most common materials
- Low flammability: flash point is in the range of 250 °C to 300 °C and auto ignition temperature is ranging from 438 °C to 460 °C
- Low service tension: silicone fluids have unusually low surface tensions that provide easy and efficient spreading, high surface activity and low internal cohesive energies
- Shear stability: shear stability of such fluids can be as much as twenty times that of quality petroleum oils
- Dielectric properties: electrical grade silicone fluids offer excellent dielectric properties that are
- Maintained for prolonged periods, even under adverse operating conditions
- Non-corrosive: silicone fluids contain no acid producing chemicals to cause staining or corrosion
- High compressibility: silicone fluids are highly compressible and thus more suitable for hydraulic purposes in comparison to hydrocarbon systems

All data on this technical data sheet is indicative only

202503V01



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