

# Silicone solutions for medical device lubrication

## Achieve optimum performance with our broad product portfolio

Bio-compatible silicone lubricants are used to reduce friction between components in medical devices and human tissue. The lubrication properties of silicone polymers are the result of long, linear polymer chains with high molecular mobility. Other desirable properties of lubricious silicone for medical devices include oxidative resistance, chemical inertness and hydrophobicity.

When you are considering how to reduce break-loose, insertion or drag forces, it's helpful to review a range of lubricious silicone solutions. That's why the NuSil™ brand provides:

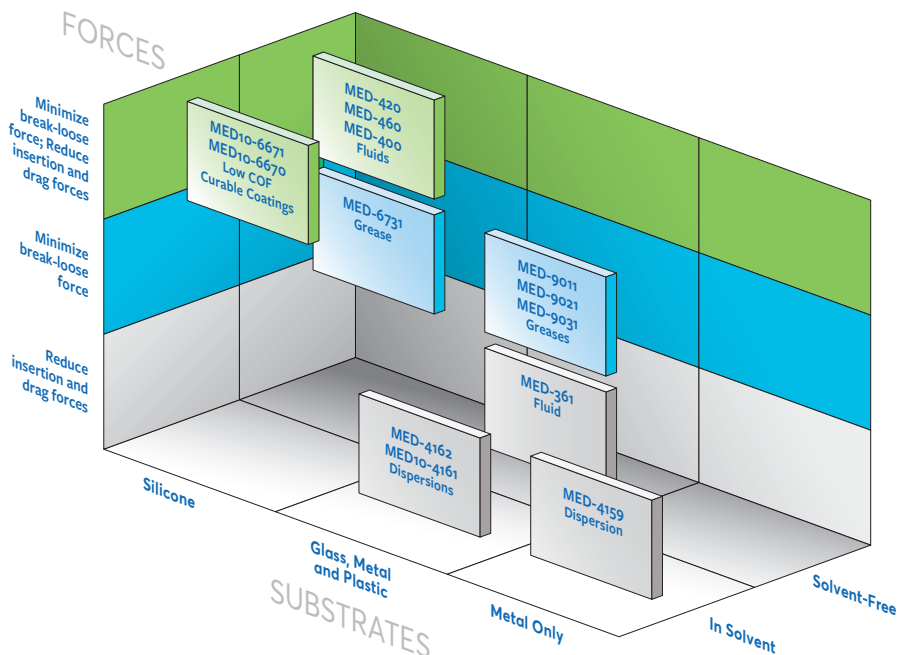
- A broad portfolio of off-the-shelf lubricious silicone solutions from dispersions, fluids and greases, to curable low COF coatings and self-lubricating elastomers
- Customization to meet desired properties for lubricity, substrate compatibility, performance characteristics and cure chemistries

### HIGH-PURITY MEDICAL GRADE SILICONES

Our advanced quality management system maintains purity at every step in the manufacturing process. Moreover, our lubricious silicone products are supported by Master Files with U.S. FDA and international authorities which include the biological testing conducted on each of our products.



# NuSil™ brand lubricious silicone solutions



## MAKING THE OPTIMAL CHOICE IS EASY

### 1. Consider the substrate

- Metal › Glass › Plastic › Silicone
- Will the lubricant contact silicone parts?

### 2. Consider the type of force reduction needed in your design

- Lower insertion force for needles, cannulas, trocars, cutting edges
- Reduce drag (on other components or skin) for catheters, guidewires, cutting edges
- Minimize break-loose force for valves, stopcocks

### 3. Consider solvent vs. solvent-free needs

## Look into the NuSil™ Portfolio for Advanced Lubricious Silicone Solutions

For over 30 years, the NuSil™ brand has offered a wide range of silicone lubricants for use in medical devices. The NuSil™ brand lubricious silicone team is eager to collaborate with medical device designers to provide medical grade lubricious silicone solutions to satisfy your unique force reduction and material requirements. We look forward to working with you to advance the application of lubricious silicone in medical devices.

### 4. Other considerations

- If a hydrophobic coating function is needed — e.g., for syringe barrels — consider MED-361
- If a dry, non-migrating lubricant is needed, consider MED10-6670 and MED10-6671
- Otherwise, lubricants are considered “wet” if they do not use a completely cured/crosslinked formulation
- Some wet lubricants are fluids with no curing; others are loosely crosslinked/cured to provide a lubricant with limited flow/migration

**For efficient, one-step lubrication, consider NuSil™ brand self-lubricating elastomers where your concern is:**

- Improving productivity
- Eliminating silicone blocking and slit healing
- Getting convenient off-the-shelf or custom solutions

To learn more visit [www.nusil.com/siliconelubricants](http://www.nusil.com/siliconelubricants)  
or contact NuSil today at [silicone@nusil.com](mailto:silicone@nusil.com) or  
**+1 (805) 684-8780**

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