



## Biocompatible Lubricants for Medical O-Rings

**Application: Sinus Implant Deployment System**

**Location: USA**

### Challenge

Biocompatible lubricants are often recommended for medical applications, especially those that may come in contact with the skin or body cavity. These lubricants should not be confused with food-grade lubricants which are not required to pass ISO-standard biocompatibility testing. A customer designing a hand-held, sinus implant deployment system approached us in search of a lubricant for their silicone O-ring. The customer was only able to find silicone-based lubricants on the market, which are not compatible with silicone components. They came to us in search of a non-silicone, biocompatible lubricant to seal their O-ring and protect the implant against saline and water. They also needed a lubricant that was compatible with E-beam sterilization

### Solution

NYEMED® 7471

A completely fluorinated, inert fluid, exhibiting low solubility

- Biocompatible per ISO 10993-5, 10993-10, and 10993-11
- Does not swell plastics and elastomers
- Seals against moisture
- Resists oxidation and chemicals

### Results

We sent the customer two lubricants from our biocompatible NYEMED® product line for testing. Ultimately, NYEMED® 7471 passed the customers material compatibility and e-beam sterilization testing. The product was also able to successfully seal the O-ring to prevent saline from reaching the implant. The customer's application is now FDA-approved and NYEMED® 7471 has been approved for its delivery system.

### Advantages

Biocompatible

Does not swell plastics and elastomers

Resists oxidation and chemicals