



Technical Bulletin

MetriLube is a concentrated oil-based instrument lubricant which coats metal instruments with a fine oil film to prevent corrosion and help hinges work freely. MetriLube may be used manually or in automated systems. MetriLube is formulated for the care of surgical instruments, is non-corrosive and is safe to use on non-porous metal instruments.

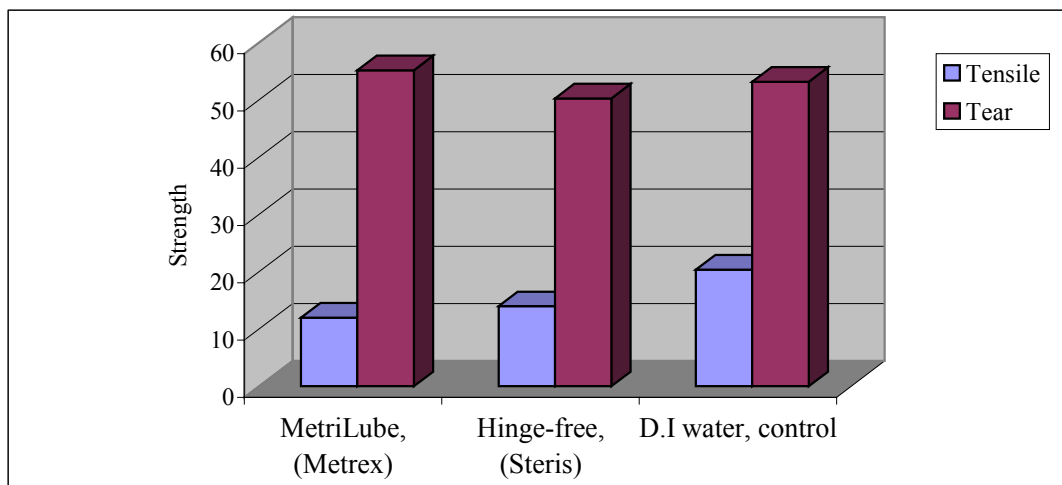
Material Compatibility

The lubrication ability of MetriLube comes from mineral oil. According to industrial experience, the prolonged use of latex with mineral oil can cause justifiable concerns of latex glove deterioration.

Since latex is one of the more commonly used types of gloves, the tear and tensile strengths were tested using ASTM methods (D624 and D412, respectively) using an Instron model 4467 machine. The tear strength measures the force per unit area required to tear the glove and tensile strength measures the greatest longitudinal stress without tearing apart.

Latex gloves were soaked in MetriLube and a competitor product for 6 hours at 30°C. Gloves were also soaked in deionized water to measure the best-case scenario as a comparison. The results show the average of four gloves per solution per test.

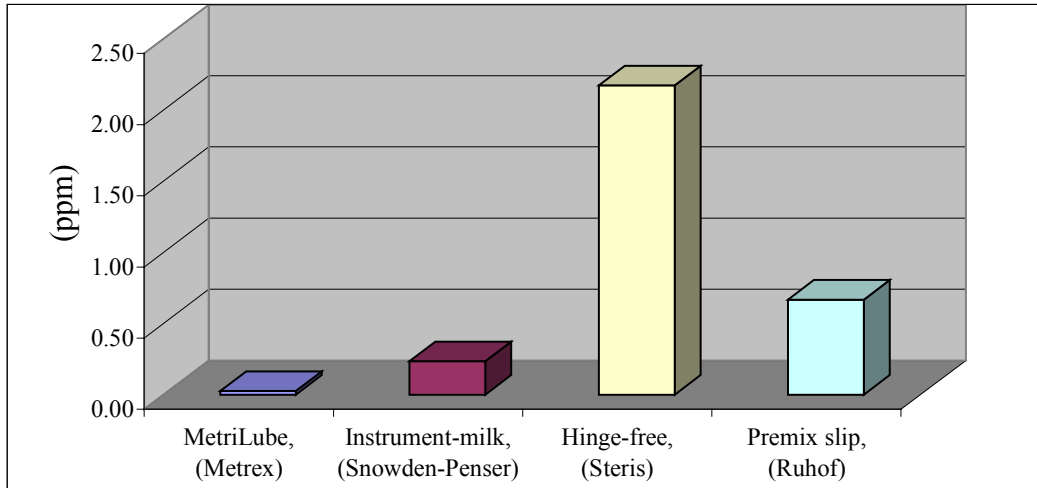
Graph 1. Tear and Tensile strength effects on latex gloves



Conclusion: MetriLube did not significantly affect the tear strength of the latex glove and only affected the tensile strength slightly more than the competitor product. MetriLube has little effect on the physical integrity of latex gloves

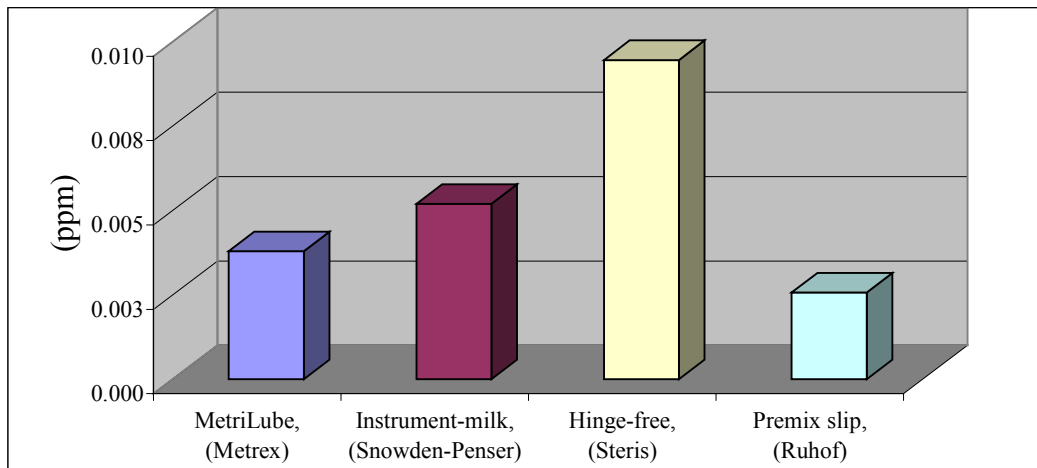
Metal powders were soaked for about 18 hours with MetriLube and several competitors. The results are shown in graph 2 (representing brass corrosion) and graph 3 (representing stainless steel corrosion).

Graph 2. Brass metal corrosion, Copper



Conclusion: The soft metal brass powder was detected as copper since copper is a major component therein. Though all the products shown are relatively low in corrosion, MetriLube is the least corrosive of the products. MetriLube is the least corrosive on brass metal of the products tested.

Graph 3. Stainless steel metal corrosion, Iron



Conclusion: The stainless steel powder was detected as iron. Though all the products shown are relatively low in corrosion, MetriLube is one of the least corrosive of the products tested. MetriLube performed favorably.