Material Data Sheet

Bio-Chem Valve, Inc. Silicone Tubing for use in Bio-Chem Valve pinch valves

Biocompatibility Tests

Tests conducted per the standards set by the United States Pharmacopeia National Formulary XVII(NF XVII), 1990, Class VI Biological Test for Plastics.

This tubing is FDA Masterfile listed (MAF 819) which includes the following test results:

| <u>Test</u> | Results per Standard |
|---|----------------------|
| Hemolysis Test | 0.0% |
| Heavy Metals as Lead | None Detected |
| Cell Culture Toxicity | None |
| USP Class VI 7-Day Implant Study | Complies |
| USP Muscle Implant Study with Histopathology (12 weeks) | Complies |
| Dichlorobenzoic Acid Residue | None Detected |
| Odor Test | Complies |
| Particulate Analysis | Complies |
| PCB's by EPA 8080 | Complies |
| Trace Impurities | Complies |
| Appearance, Haze, and Luminous Transmittance | Complies |
| Crystallinity by X-Ray Diffraction | Complies |
| Peristaltic Pump, Flow Rate Accuracy | Excellent |
| Elevated Temp. Pinch-off | No effect after 35 |
| days at 185F | |
| USP Physiochemical Tests | Complies |

| Physical Property | ASTM Method | Typical Value |
|------------------------------------|-------------|---------------|
| Hardness, Durometer A | D-2240 | 50 |
| Tensile Strength, psi | D-412 | 1250 |
| Elongation, % | D-412 | 575 |
| Tear Resistance, Die B | D-624 | 200 |
| Compression set %, 22 hrs. at 350F | D-395 | 40 |