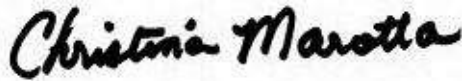


**MP Biomedicals, LLC**29525 Fountain Parkway  
Solon, Ohio 44139Telephone: 440/337-1200  
Toll Free: 800/854-0530

## Certificate of Analysis

**Product Description:** DL-Dithiothreitol  
**Catalog Number:** 100597  
**Lot:** MR31763**Formula:** C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>  
**CAS #:** 27565-41-9  
**Physical Description:** White Powder**Formula Weight:** 154.25  
**Storage:** +4°C

| Test               | Specification        | Result               |
|--------------------|----------------------|----------------------|
| Identity Test      | Passes               | Passes               |
| Purity (Titration) | ≥99.0%               | 99.5%                |
| Melting Point      | 40 - 50°C            | 42 - 43°C            |
| FTIR               | Conforms to Standard | Conforms to Standard |
| OD Readings        | For Information Only | 0.221%               |

pH (H<sub>2</sub>O): 5.24  
Heavy metals: 1.5 ppm08/18/2014 - Christina Marotta  
MP Biomedicals, LLC.  
Technical DirectorThis is an electronically generated document  
<mailto:biotech@mpbio.com>  
<http://www.mpbio.com>Online Ordering, MSDSs, certificates of analysis and data sheets now available on our web site  
Technical Service: 1-800-279-5490 (440-337-1200) Customer Service: 1-800-854-0530 (440-337-1200)