

**DL-Dithiothretiol (DTT)**

**Specifications**

**CAS-Number:** 3483-12-3  
**Formula:** C<sub>4</sub>H<sub>10</sub>O<sub>2</sub>S<sub>2</sub>  
**Formula weight:** 154.25 g/mol  
**Storage** Keep in refrigeration condition +2-8 °C

| Test  | Specifications  |
|---|---|
| Description                                       | A white free flowing powder, hygroscopic  |
| Solubility  | Freely soluble in methanol and methylene chloride.  |
| Clarity<br>a) In water<br>b) Sodium Acetate       | 5% (w/v) solution in water is clear and colorless<br>Clear and colorless  |
| Identification by<br>a) IR Spectrum<br><br>b) TLC | IR Spectrum of sample exhibits maxima at the same wavelengths as that of a similar preparation of reference compound.<br><br>R <sub>f</sub> value of the sample is comparable with that of the standard |
| Melting Range                                     | 41 ± 3 °C   |
| Related Substance<br>b) UV Spectroscopy           | Content of Oxidized DTT (Dihydroxydithiane) NMT 0.4%  |
| UV Absorbance<br>a) At 500nm<br>b) At 280nm       | Absorbance of 0.1M solution at 500nm NMT 0.035<br>Absorbance of 0.1M solution at 280nm NMT 0.100  |
| pH / Acidity                                      | pH of 0.1M solution in water is between 4.0 and 6.0   |
| Assay<br>(by Iodimetry)                           | >99%  |
| Loss on drying                                    | <0.5%   |