

## Analytical Data Sheet

Lot number **1075549**  
not for drug use

Catalog number **C-2630.0100**  
Product number **4001984.0100**  
Product **Z- Thr- OH**  
Molecular formula **C<sub>12</sub>H<sub>15</sub>NO<sub>5</sub>**  
Relative molecular mass **253.26**

| Tests                               | Results   |        |       |           |           |          |          |          |          |
|-------------------------------------|---|--------|-------|-----------|-----------|----------|----------|----------|----------|
| Appearance                          | white powder  |        |       |           |           |          |          |          |          |
| Appearance of solution              | clear, colorless solution (50 mg/mL in methanol)  |        |       |           |           |          |          |          |          |
| Identification (elemental analysis) | <table> <thead> <tr> <th>Theory</th> <th>Found</th> </tr> </thead> <tbody> <tr> <td>C = 56.9%</td> <td>C = 56.9%</td> </tr> <tr> <td>H = 6.0%</td> <td>H = 6.0%</td> </tr> <tr> <td>N = 5.5%</td> <td>N = 5.5%</td> </tr> </tbody> </table>           | Theory | Found | C = 56.9% | C = 56.9% | H = 6.0% | H = 6.0% | N = 5.5% | N = 5.5% |
| Theory                              | Found   |        |       |           |           |          |          |          |          |
| C = 56.9%                           | C = 56.9%   |        |       |           |           |          |          |          |          |
| H = 6.0%                            | H = 6.0%  |        |       |           |           |          |          |          |          |
| N = 5.5%                            | N = 5.5%  |        |       |           |           |          |          |          |          |
| Identification (TLC)                | complies with authentic material  |        |       |           |           |          |          |          |          |
| Melting point                       | 104 °C  |        |       |           |           |          |          |          |          |
| Specific optical rotation           | $[\alpha]_D^{24} = -5.4^\circ$ (2% in acetic acid)  |        |       |           |           |          |          |          |          |
| Purity (TLC)                        | > 99%   |        |       |           |           |          |          |          |          |
| Related impurities (TLC)            | < 0.1% Z-Thr-Thr-OH   |        |       |           |           |          |          |          |          |
| TLC conditions                      | chloroform/methanol/acetic acid 77.5/15/7.5<br>chloroform/methanol/acetic acid/H <sub>2</sub> O 45/13/1/2<br>ethylacetate/pyridine/acetic acid/H <sub>2</sub> O 60/20/6/11<br>plate: silicagel 60 F <sub>254</sub><br>detected by: UV, ninhydrin, TMB |        |       |           |           |          |          |          |          |
| Assay (elemental analysis)          | 99.9% (Cth 56.91 %, Cfd 56.86%)   |        |       |           |           |          |          |          |          |
| Water content (KF volumetric)       | 0.1%  |        |       |           |           |          |          |          |          |

Latest update: February 08, 2018

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