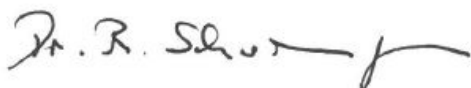


## Certificate of Analysis

**Product Name:** CYTISINE  
≥ 99.0 % HPLC, ≥ 99 %  
**Product Number:** 712264  
**Batch Number:** BCBZ9991  
**Brand:** Aldrich  
**CAS Number:** 485-35-8  
**Formula:** C<sub>11</sub>H<sub>14</sub>N<sub>2</sub>O  
**Formula Weight:** 190.24  
**Quality Release Date:** 29 JAN 2019  
**Recommended Retest Date:** DEC 2021

| TEST                     | SPECIFICATION         | RESULT         |
|--------------------------|-----------------------|----------------|
| APPEARANCE (COLOR)       | WHITE TO FAINT YELLOW | WHITE          |
| APPEARANCE (FORM)        | POWDER OR CRYSTALS    | POWDER         |
| PURITY (HPLC AREA %)     | ≥ 99.0 %              | 99.9 %         |
| SPECIFIC ROTATION (20/D) | -108.0 ± 3.0 DEGREES  | -106 DEGREES   |
| CONCENTRATION            | C=1 IN ETHANOL        | C=1 IN ETHANOL |
| MELTING POINT            | 155 - 159 C           | 156 C          |
| CARBON CONTENT           | 69.43 % (THEORY)      | 69.12 %        |
| HYDROGEN CONTENT         | 7.42 % (THEORY)       | 7.43 %         |
| NITROGEN CONTENT         | 14.73 % (THEORY)      | 14.77 %        |
| PROTON NMR SPECTRUM      | CONFORMS TO STRUCTURE | CONFORMS       |



Dr. Reinhold Schwenninger  
Quality Assurance  
Buchs, Switzerland

Sigma-Aldrich warrants that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current specification sheet may be available at Sigma-Aldrich.com. For further inquiries, please contact Technical Service. Purchaser must determine the suitability of the product for its particular use. See reverse side of invoice or packing slip for additional terms and conditions of sale.