

## Certificate of Analysis

Date of Testing: 2023-12-15 09:03:47  
 Date of Next Testing: 2027-12-14 09:03:47  
 Product Name: **1,4,7,10-Tetraazacyclododecane**  
 CAS Number: 294-90-6  
 Specifications & Purity:  $\geq 97\%$ (GC)  
 Lot #: L2312079  
 SKU #: **C103173**  
 Version: **0**  
 Analysis #: **300054**  
 Storage Temperature: Store at 2-8°C, Argon charged

| Parameter            | Limit Values                                              | Result                                                    |
|----------------------|-----------------------------------------------------------|-----------------------------------------------------------|
| Purity(GC)           | 97-100 (%)                                                | 97.47 %                                                   |
| Melting point        | 108-113 (°C)                                              | 110.19000 °C                                              |
| Appearance (C103173) | white to Off-White to yellow powder or crystals or chunks | white to Off-White to yellow powder or crystals or chunks |
| Infrared spectrum    | Conforms to Structure                                     | Conforms to Structure                                     |



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