

## Certificate of Analysis

Date of Testing: 2022-08-12 18:43:35  
Date of Next Testing: 2026-08-11 18:43:35  
Product Name: **N,N'-Bis(2-hydroxyethyl)ethylenediamine**  
CAS Number: 4439-20-7  
Specifications & Purity:  $\geq 97.0\%$ (GC)  
Lot #: H2209510  
SKU #: **N140386**  
**Analysis: 124926**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
Purity(GC)	97-100 (%)	97.06 %
Purity(Neutralization titration)	96.5-103.5 (%)	99.54 %
Melting point	98-102 (°C)	98.18000 °C
Appearance (N140386)	White to Light Yellow Powder or Solid or chunks	White to Light Yellow Powder or Solid or chunks
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager