

## Certificate of Analysis

Date of Testing: 2022-09-29 19:29:46  
Date of Next Testing: 2026-09-28 19:29:46  
Product Name: **N-(2-Hydroxyethyl)piperazine**  
CAS Number: 103-76-4  
Specifications & Purity: 98%  
Lot #: I2220127  
SKU #: **H101744**  
Version: **0**  
Analysis #: **141120**

Parameter	Limit Values	Result
Purity(GC)	98-100 (%)	98.05 %
Density (20°C)	1.061-1.063	1.06
Water by Karl Fischer	0-0.5 (%)	0.22 %
Refractive index n <sub>20</sub> /D	1.5055-1.5075	1.51
Appearance (H101744)	Colorless Liquid	Colorless liquid
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager