

ALADDIN SCIENTIFIC CORPORATION

14078 Meridian Parkway, Riverside, CA. 92518

## Certificate of Analysis

Date of Testing: 2022-09-21 10:25:42  
Date of Next Testing: 2026-09-20 10:25:42  
Product Name: **1,4-Piperazinediethanesulfonic acid(PIPES)**  
CAS Number: 5625-37-6  
Specifications & Purity: 99%  
Lot #: 12215680  
SKU #: **P105090**  
Analysis: **138172**

Parameter	Limit Values	Result
Purity (Titration by H <sub>2</sub> SO <sub>4</sub> )	99-100 (%)	99.56%
UV Absorbance 290nm(20% in 1N NaOH)	0-0.1	0.06
Heavy metal (as Pb)	0-5 (ppm)	2.55 ppm
Appearance (P105090)	white crystalline powder	white crystalline powder
Infrared spectrum	Conforms to Structure	Conforms to Structure
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Solubility,0.25g/ml of 1N NaOH	Clear colorless	Clear Colorless



John Su  
QA & QC Manager