

ALADDIN SCIENTIFIC CORPORATION  
14078 Meridian Parkway, Riverside, CA. 92518

### Certificate of Analysis

Date of Testing: 2023-08-22 11:05:21  
Date of Next Testing: 2027-08-21 11:05:21  
Product Name: **Betaine Hydrochloride**  
CAS Number: 590-46-5  
Specifications & Purity:  $\geq 99\%$   
Lot #: H2318178  
SKU #: **B113358**  
Version: **1**  
Analysis #: **241668**  
Storage Temperature: Room temperature

Parameter	Limit Values	Result
Ignition Residue(Ash)	0-0.1 (%)	0.02000 %
Heavy metals	0-0.001 (%)	0.00000 %
(As)Arsenic	0-2 (ppm)	0.00000 ppm
Water content	0-0.5 (%)	0.05700 %
pH(2.5g in 10ml H2O, 25°C)	0.8-1.2	0.81700
Purity(Titration by AgNO3)	98.5-101.5 (%)	101.23000 %
Appearance (B113358)	White Powder or Crystals	White Powder or Crystals
Clear colorless solution(50mg/ml,water)	pass	Pass
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager