

## Certificate of Analysis

Date of Testing: 2023-02-25 16:45:16  
Date of Next Testing: 2027-02-24 16:45:16  
Product Name: **Tetrabutylammonium fluoride hydrate**  
CAS Number: 22206-57-1  
Specifications & Purity: 98%  
Lot #: B2323434  
SKU #: **T121585**  
**Analysis:** **181903**  
Storage Temperature: Argon charged

Parameter	Limit Values	Result
TBHF-HF(neutralization titration)	0-2 (%)	1.15 %
Water by Karl Fischer	0-20 (%)	19.33 %
Purity(Titration by HClO <sub>4</sub> )	97.5-102.5 (%)	98.86 %
Appearance (T121585)	White to Yellow Solid	White to Yellow Solid
Proton NMR spectrum	Conforms to Structure	Conforms to Structure
Infrared spectrum	Conforms to Structure	Conforms to Structure



John Su  
QA & QC Manager