

## Certificate of Analysis

Date of Testing: 2022-02-10 10:24:19  
 Date of Next Testing: 2026-02-09 10:24:19  
 Product Name: **MES**  
 CAS Number: 4432-31-9  
 Specifications & Purity: for plant cell culture, ≥99.5%  
 Lot #: B2209423  
 SKU #: **M108952**  
**Analysis:** **069975**  
 Storage Temperature: Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-5 (%)	2.50 %
PH(25 °C, 0.5 M in Water)	2.5-4	3.20
Total aerobic microbial count (TAMC)	0-100 (cfu/g)	15.20 cfu/g
Endonuclease Detection	0-0.1 (EU/g)	0.06 EU/g
Ignition Residue (as sulfate)	0-0.05 (%)	0.03 %
useful PH range	5.7-6.9	6.30
Purity(titration by NaOH)(anhydrous basis)	99.5-100.5 (%)	99.51000 %
Appearance (M108952)	white crystalline powder	white crystalline powder
DNases	none detected	none detected
Insoluble matter	pass	Pass
phosphatases	none detected	none detected
proteases	none detected	none detected
RNases	none detected	none detected
Solubility in H <sub>2</sub> O , soluble , 1M , 20°C, clear, colorless	pass	Pass
Plant cell culture test	pass	Pass
Proton NMR spectrum	Conforms to structure	Conforms to Structure



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A handwritten signature in black ink that reads "John Su".

John Su  
QA & QC Manager