

## Certificate of Analysis

Date of Testing:	2023-03-07 11:04:24
Date of Next Testing:	2027-03-06 11:04:24
Product Name:	<b>MES</b>
CAS Number:	4432-31-9
Specifications & Purity:	for plant cell culture, ≥99.5%
Lot #:	C2303778
SKU #	<b>M108952</b>
Version	<b>2</b>
<b>Analysis #:</b>	<b>156806</b>
Storage Temperature:	Room temperature

Parameter	Limit Values	Result
Water by Karl Fischer	0-5 (%)	0.26 %
PH(25 °C, 0.5 M in Water)	2.5-4	2.86
Total aerobic microbial count (TAMC)	0-100 (cfu/g)	12.65 cfu/g
Endonuclease Detection	0-0.1 (EU/g)	0.03 EU/g
Ignition Residue (as sulfate)	0-0.05 (%)	0.02 %
useful PH range	5.7-6.9	6.18
Purity(titration by NaOH)(anhydrous basis)	99.5-100.5 (%)	100.50000 %
Appearance (M108952)	White powder or crystal or granule	White powder or crystal or granule
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
Proton NMR spectrum	Conforms to structure	Conforms to Structure
Plant cell culture test	pass	Pass



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

John Su  
QA & QC Manager