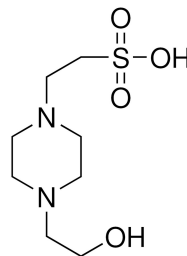


# Certificate of Analysis

**Product Name :** HEPES BioPerformance Certified, ≥99.5% (titration), suitable for cell culture  
**Product Number :** H4034-VAR  
**Batch Number :** 0000466848  
Source Batch : 0000436931  
CAS Number : 7365-45-9  
MDL Number : MFCD00006158  
Molecular Formula : C<sub>8</sub>H<sub>18</sub>N<sub>2</sub>O<sub>4</sub>S  
Formula Weight : 238.30 g/mol  
Expiry Date : Mar 2029  
Quality Release Date : 09 May 2025



Test	Specification	Result
Appearance (Color)	White	White
Appearance (Form)	Crystalline Powder	Crystalline Powder
Solubility (Color)	Colorless	Colorless
Solubility (Turbidity)	Clear	Clear
500 mg/ml, H <sub>2</sub> O		
Water (by Karl Fischer)	≤ 0.1 %	0.0 %
A260 UV Absorption	≤ 0.05	0.00
0.1 M		
A280 UV Absorption	≤ 0.05	0.00
0.1 M		
A290 UV absorbance	≤ 0.05	0.00
33% W/W		
Iron (Fe)	≤ 5 ppm	< 5 ppm
DNase, Exonuclease Detection	None Detected	None Detected
NICKase, Endonuclease Detection	None Detected	None Detected
RNase Detection	None Detected	None Detected
Protease Detection	None Detected	None Detected
Total Aerobic Microbial Count	≤ 100 CFU/g	1 CFU/g
Endotoxin Level	≤ 0.1 EU/mg	< 0.0 EU/mg
Cell Culture Test	Pass	Pass
Infrared Spectrum	Conforms to Structure	Conforms

Sigma-Aldrich warrants, that at the time of the quality release or subsequent retest date this product conformed to the information contained in this publication. The current Specification sheet may be available at [Sigma-Aldrich.com](http://Sigma-Aldrich.com). For further inquiries, please contact Technical Service. Purchase must determine the suitability of the product for its particular use. See reverse side of website or packing slip for additional terms and conditions of sale

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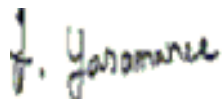
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**Product** H4034-VAR  
**Batch** 0000466848

Titration with NaOH	$\geq 99.5 \%$	100.0 %
Anhydrous		
ICP-MS	$\leq 5 \text{ ppm}$	$< 5 \text{ ppm}$
(Total: Ag, As, Bi, Cd, Cu, Hg, Mo, Pb, Sb, Sn)		

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Jagodige Yasomanee, Supervisor  
Quality Assurance  
St. Louis, Dekalb  
US

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