

## Certificate of Analysis

**HR2-629**

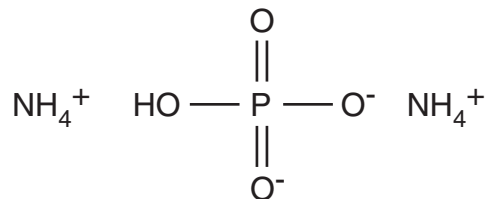
Optimize™ reagents are preformulated macromolecular crystallization grade solutions designed specifically for the crystallization of proteins, peptides, and nucleic acids. Each Optimize solution is formulated using high purity salts, polymers, and buffers. Sterile filtered Optimize reagents are formulated at convenient ready to use concentrations. Optimize reagents remove the guesswork and make the process of reproducing preliminary screening conditions and general optimization faster, easier, and more convenient. When using Optimize reagents the user moves directly from the screen to the optimization with no time wasted searching for and formulating salts, buffers, and viscous polymers. This Certificate of Analysis indicates the quality and performance of the reagent.

### Technical Support

Inquiries regarding Optimize reagent formulation, interpretation of screen results, optimization strategies and general inquiries regarding crystallization are welcome. Please e-mail, fax, or telephone your request to Hampton Research. Fax and e-mail Technical Support are available 24 hours a day. Telephone technical support is available 8:00 a.m. to 5:00 p.m. USA Pacific Standard Time.

Danielle Taylor  
Quality Control

<u>Property Test</u>	<u>Lot (Sample) Results</u>
Product Name	3.5 M Ammonium phosphate dibasic
Synonym	di-Ammonium hydrogenphosphate (sec) Ammonium hydrogenphosphate Diammonium hydrogenphosphate
Product Number	HR2-629
Formula	H <sub>9</sub> N <sub>2</sub> O <sub>4</sub> P or (NH <sub>4</sub> ) <sub>2</sub> HPO <sub>4</sub>
Formula Weight	132.06
CAS Number	[7783-28-0]
EC Number	2319878
Purity	≥ 99.0 %
Merck	13,546
Titration Range	99.1 - 99.7 %
Titration (Method)	N-Determination according to KJELDAHL
Appearance (Starting Material)	White, Fine Crystals with Lumps
Appearance (Solution)	Clear, Colorless
Residue (Filter Test)	No Residue
Melting Point (Starting Material)	155 °C (dec.) (lit.)



### Property Test

Metal Trace Analysis (ICP-OES)

Arsenic Traces (MHS-AAS)

Absorbance (λ)

Refractive Index Range

pH Range

Conductivity Range

### Lot (Sample) Results

Passed

≤ 0.1 mg/kg

1.0 M in H<sub>2</sub>O

λ: 260 nm A max: 0.065

λ: 280 nm A max: 0.065

1.40307 - 1.40395 at 20 °C

7.8 - 8.1 at 25 °C

87.4 - 106.7 mS at 25 °C

Al	≤ 0.0005%
As	≤ 0.00001%
Ba	≤ 0.0005%
Bi	≤ 0.0005%
Ca	≤ 0.001%
Cd	≤ 0.0005%
Cl	≤ 0.0005%
Co	≤ 0.0005%
Cr	≤ 0.0005%
Cu	≤ 0.0005%
Fe	≤ 0.0005%
K	≤ 0.005%
Li	≤ 0.0005%
Mg	≤ 0.0005%
Mn	≤ 0.0005%
Mo	≤ 0.0005%
Na	≤ 0.005%
Ni	≤ 0.0005%
NO <sub>3</sub>	≤ 0.001%
Pb	≤ 0.0005%
SO <sub>4</sub>	≤ 0.002%
Sr	≤ 0.0005%
Zn	≤ 0.0005%

Hampton Research  
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Aliso Viejo, CA 92656-3317 U.S.A.  
Tel: (949) 425-1321 • Fax: (949) 425-1611  
Technical Support e-mail: tech@hrmail.com  
Website: www.hamptonresearch.com