

# Chem-Impex International, Inc.

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## Certificate of Analysis

**Catalogue Number** 07067  
**Lot Number** 000127-1057005  
**Product** **N- $\omega$ -Hydroxy-L-norarginine diacetate salt**

nor-NOHA diacetate

L-2-Amino-{4-(2'-hydroxyguanidino)butyric acid diacetate

**CAS Number** 189302-40-7

**Molecular Formula** C<sub>5</sub>H<sub>12</sub>N<sub>4</sub>O<sub>3</sub>

**Molecular Weight** 176.21

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**Appearance** Off-white powder

**Solubility** Clear, slightly yellow solution (50 mg/mL in Water),  
Clear, slightly yellow solution (50 mg/ml in 80% acetic acid)

**Water Content (Karl  
Fisher)** 0.5%

**TLC System** Methanol/Chloroform/Ammonia 17% (2/2/1)  
n-butanol/Acetic acid/H<sub>2</sub>O (4/2/2)  
Ethyl acetate/Pyridine/Acetic Acid/H<sub>2</sub>O (60/60/12/36)  
Plate: silicagel 60 F<sub>254</sub>

**Optical Rotation** Detected by: UV, ninhydrin, chlorine-tolidine, TMB  
[ $\alpha$ ]<sub>D</sub><sup>24</sup> = +14.8° (C=1% in 80% acetic acid)

**Assay** 63.1% (Nth 31.80%, Nfd 20.05%)

**Purity by TLC** > 97%

**Storage** Store at  $\leq -4$  °C

**Additional Information** Acetic Acid (HPLC): 34.3%

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**Remarks**

See material safety data sheet for additional information

For laboratory use only

**The foregoing is a copy of the Certificate of Analysis as provided by our supplier**



**Bala Kumar**  
**Quality Control Manager**