

# Chem-Impex International, Inc.

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**Tel:** (630) 766-2112

**E-mail:** sales@chemimpex.com

**Shipping and Correspondence:**

935 Dillon Drive

Wood Dale, IL 60191

**Fax:** (630) 766-2218

**Web site:** www.chemimpex.com

**Manufacturing site:**

825 Dillon Drive

Wood Dale, IL 60191

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## Certificate of Analysis

**Catalogue Number** 00322  
**Lot Number** 0568471  
**Product** **Suc-Ala-Ala-Ala-pNA**

Succinyl-L-alanine-L-alanine-L-alanine 4-nitroanilide

**CAS Number** 52299-14-6  
**Molecular Formula** C<sub>19</sub>H<sub>25</sub>N<sub>5</sub>O<sub>8</sub>

**Molecular Weight** 451.44

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**Appearance** Slightly yellowish powder  
**Appearance of Solution** Clear slightly yellow solution (50 mg/mL in DMF)  
**Elemental Analysis (Theory)** C = 50.55%; H = 5.58%; N = 15.51%  
**Elemental Analysis (Found)** C = 50.87%; H = 5.55%; N = 15.55%  
**TLC System** Chloroform/Methanol/Toluene/H<sub>2</sub>O (8:8:8:1)  
Chloroform/Methanol/Acetic acid(98-100%)/H<sub>2</sub>O (45:13:1:2)  
Acetonitrile/H<sub>2</sub>O (1:1)  
Plate: silicagel 60 F<sub>254</sub>  
Detected by: UV, ninhydrin, chlorine-tolidine  
**Related Substances** < 0.1% pNA  
**Assay** 100.1% (Elemental analysis, Cth 49.36%, Cfd 49.40%)  
**Purity by TLC** > 99%  
**Storage** Store at ≤ -4 °C

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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**