

# Chem-Impex International, Inc.

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## Certificate of Analysis

**Catalogue Number** 32531  
**Lot Number** 002918-20180501  
**Product** (+)-Sparteine

Pachycarpine

**CAS Number** 492-08-0  
**Molecular Formula** C<sub>15</sub>H<sub>26</sub>N<sub>2</sub>

**Molecular Weight** 234.38

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**Appearance** Light yellow viscous oily liquid

**Solubility** Easily soluble in ethanol

**Density** 1.023

**Refractive Index** 1.5280

**Heavy Metals** < 10 ppm

**pH** 11.6

**Optical Rotation** [α]<sup>20</sup><sub>D</sub> = +16.8 °

**Related Substances** 1.80%

**Assay by titration** 100.28% (On dry basis)

**Storage** Store at RT

**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