## **Chem-Impex International, Inc.**

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## Certificate of Analysis

Catalogue Number Lot Number Product	00461 002129-20150923 <b>Thiamine pyrophosphate</b>
	Thiamine pyrophosphate chloride
	Cocarboxylase
CAS Number Molecular Formula	154-87-0 C <sub>12</sub> H <sub>19</sub> ClN <sub>4</sub> O <sub>7</sub> P <sub>2</sub> S
Molecular Weight	460.77
Appearance Heavy Metals Anion	White powder < 20 ppm Chloride (Cl <sup>-</sup> ): 7.60%
Cation	Cadmium (Cd): Not detected Lead (Pb): 1 ppm Mercury (Hg): Not detected Arsenic (As): 1 ppm
рН	1.2% (10% in Water)
<b>Infrared Spectrum</b>	Conforms to structure
Loss on Drying	1.2% (130 °C)
<b>Residual Solvents</b>	0.22%
<b>Related Substances</b>	1.7%
Purity by HPLC	98.6% (Anhydrous basis)
Storage	Store at 0-8 °C
Additional Information	Thiamin hydrochloride: 0.2% Thiamin monophosphoric acid ester chloride: 1.1% A single unknown impurity: 0.06%

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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

letumer.

Bala Kumar Quality Control Manager