

# Chem-Impex International, Inc.

---

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

---

## Certificate of Analysis

<b>Catalogue Number</b>	03129
<b>Lot Number</b>	000424-140218-10854
<b>Product</b>	<b>D-Proline benzyl ester hydrochloride</b>  D-Pro-OBzl•HCl  (R)-Pyrrolidine-2-carboxylic acid benzyl ester hydrochloride
<b>CAS Number</b>	53843-90-6
<b>Molecular Formula</b>	C <sub>12</sub> H <sub>15</sub> NO <sub>2</sub> •HCl
<b>Molecular Weight</b>	241.7
<hr/>	
<b>Appearance</b>	White powder
<b>Solubility</b>	Clear, solution (0.3 gram in 2 mL DMF)
<b>Melting Point</b>	140.0-140.8 °C
<b>Water Content (Karl Fisher)</b>	0.389%
<b>Optical Rotation</b>	[α] <sup>20</sup> <sub>D</sub> = +42.5° (C=1 in MeOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.90%
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	98.34%
<b>Storage</b>	Store at 0-8°C

# *Certificate of Analysis*

Catalog Number: 03129

Lot Number: 000424-140218-10854

---

**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**