



# INDOFINE Chemical Company, Inc.

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## *Certificate of Analysis*

<b>Catalogue Number</b>	04-676
<b>Product</b>	<b>Boc-L-glutamic acid <math>\gamma</math>-benzyl ester</b>
<b>Lot Number</b>	000424-140410-30603 Boc-L-Glu(OBzl)-OH Boc-L-glutamic acid 5-benzyl ester
<b>CAS Number</b>	13574-13-5
<b>Molecular Formula</b>	C <sub>17</sub> H <sub>23</sub> NO <sub>6</sub>
<b>Molecular Weight</b>	337.4
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<b>Appearance</b>	White powder
<b>Solubility</b>	Clear solution (0.3 g in 2 mL DMF)
<b>Melting Point</b>	69.5-71.9 °C
<b>Water Content (Karl Fisher)</b>	0.063%
<b>Optical Rotation</b>	$[\alpha]_D^{20} = -5.4^\circ$ (c=1 in AcOH)
<b>Infrared Spectrum</b>	Conforms to structure
<b>Analysis by Mass Spectra</b>	Conforms to standard
<b>Loss on Drying</b>	0.17% (30 °C, 2 hr)
<b><sup>1</sup>H NMR</b>	Conforms to structure
<b>D-Enantiomer</b>	Not detected
<b>Purity by HPLC</b>	98.42%
<b>Storage</b>	Store at 0-8 °C