Chem-Impex International, Inc.

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Certificate of Analysis

Catalogue Number Lot Number	03061 000424-160118-16728
Product	D-Glutamic acid dibenzyl ester 4- toluenesulfonate salt
	D-Glu(OBzl)-OBzl•TosOH
CAS Number	19898-41-0
Molecular Formula	$C_{19}H_{21}NO_4 \cdot C_7H_8O_3S$
Molecular Weight	499.6
Appearance	White powder
Solubility	Clear solution (0.3 g in 2 mL Methanol)
Melting Point	141.3-141.6 °C
Water Content (Karl Fisher)	0.045%
Optical Rotation	$[a]_D^{20} = -8.3^\circ$ (C=1 in MeOH)
Infrared Spectrum	Conforms to structure
Analysis by Mass Spectra	Conforms to standard
Loss on Drying	0.3% (70 °C, 2h)
¹ H NMR	Conforms to structure
Purity by HPLC	98.94%
Storage	Store at 0-8 °C
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

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Bala Kumar Quality Control Manager