

# *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>	21333
<b>Lot Number</b>	003183-0821-01
<b>Product</b>	<b>Harmalol hydrochloride dihydrate</b> 1-Methyl-7-hydroxy-3,4-dihydro- $\beta$ -carboline hydrochloride dihydrate
<b>CAS Number</b>	6028-00-8
<b>Molecular Formula</b>	$C_{12}H_{12}N_2O \cdot HCl \cdot 2H_2O$
<b>Molecular Weight</b>	272.73

---

<b>Appearance</b>	Yellow powder
<b>Solubility</b>	Clear solution in DMSO and Methanol
<b>Melting Point</b>	262.6 - 263.3 °C
<b><math>^1H</math> NMR</b>	Conforms to structure
<b>Purity by HPLC</b>	99.79%
<b>Storage</b>	Store at 0 - 8 °C
<b>Remarks</b>	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**