

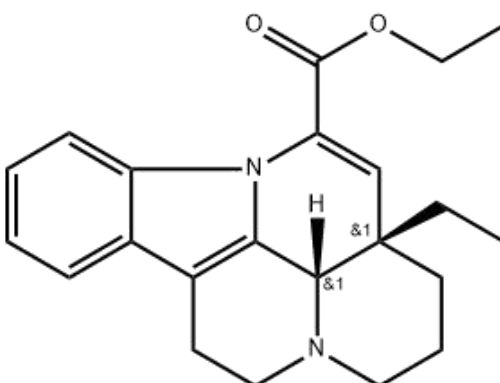


Wuhan HengHeDa Pharm Co., Ltd

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Wuhan Economic& Technological Development Zone, Wuhan, China

CERTIFICATE OF ANALYSIS

Product name	VINPOCETINE	
CAS NO	42971-09-5	
Molecular formula	C22H26N2O2	
Molecular weight	350.46	
Quantity	200KG	
Batch NO	HHD20220325	
Production date	2022.03.25	
Expiry Date	2024.03.24	
Test based on enterprise standard		
Test Item	Specification	Result
Appearance	It is white or very slightly yellow,crystalline powder	Conforms
Solubility	Practically insoluble in water, soluble in methylene chloride, slightly soluble in anhydrous ethanol	Conforms
Specific optical rotation	+127°~+134°	+131.4°
A. Specific optical rotation	Should comply (see tests)	Conforms
B. IR	Infrared absorption spectrum of test and standard are concordant	Conforms
Residue on ignition	≤ 0.1%	0.05%
Heavy metals	≤ 10ppm	Conforms

Related Substances (HPLC)	Impurity A ≤ 0.6% Impurity B ≤ 0.5% Impurity C ≤ 0.3% Impurity D ≤ 0.5% Unspecified impurities ≤ 0.1% Total impurities ≤ 1.0%	0.02% 0.09% 0.03% 0.04% 0.02% 0.2%
Loss on Drying	≤ 0.5%	0.3%
Sulfated ash	Not more than 0.1% w/w	0.04%
Assay Residual solvents (by head space GC)	98.5% ~ 101.5%	99.68%
-Methanol	Not more than 3000 ppm	Not detected
-Ethyl alcohol	Not more than 5000 ppm	Not detected
-Acetone	Not more than 5000 ppm	Not detected
-Dichloromethane	Not more than 600 ppm	123 ppm
Heavy Metal	Not more than 20 ppm	Complies
Total microbial count	1000 cfu/g	40cfu/g
Total mould and yeast	100 cfu/g	Below 10 cfu/g
Staphylococcus aureus	Should be absent	Absent
Pseudomonas aeruginosa	Should be absent	Absent
Enterobacteriaceae	Should be absent	Absent
E.Coli	Should be absent	Absent
Salmonella spp	Should be absent	Absent
Bacterial Endotoxin	NMT 0.25 EU/mg	Complies

Storage	Store in cool & dry place, keep away from strong light and heat.
Shelf life	2 years when properly stored.
Conclusion: This product complies with above specification.	

Inspector
Shen Wu

Director
King Yang

