

CERTIFICATE OF ANALYSIS

LOT NUMBER: 1357-034 (GR lotK4A241F)
DESCRIPTION: **BioVinca™ Vinpocetine**, Pharmaceutical Grade
SPECIES: *Vinca minor*
CLASSIFICATION: PLANT EXTRACT
DATE OF ISSUE: MARCH 31, 2005

SPECIFICATION

IDENTITY BY FT-NIR Conforms to reference standard
CHEMICAL ABSTRACTS REGISTRY NUMBER 42971-09-5
CHEMICAL FORMULA $C_{22}H_{26}N_2O_2$

CHEMICAL ANALYSIS

VINPOCETINE (HPLC) NLT 99.0%
MOISTURE NMT 0.3%
ASH NMT 0.1%
SPECIFIC OPTICAL ROTATION (D-021/2) +129 to + 133
(1% in Dimethylformamide)

MICROBIOLOGICAL

TOTAL PLATE COUNT (USP)-colonies/g < 10,000
COLIFORM (Petrifilm)-colonies/g < 10
E. COLI (Petrifilm)-colonies/g NEGATIVE
SALMONELLA (AOAC)-colonies/g NEGATIVE in 25 g
YEAST AND MOLD-colonies/g < 100

HEAVY METALS (USP)

NMT10 PARTS PER MILLION

PHYSICAL

ODOR NONE
APPEARANCE WHITE CRYSTALLINE POWDER
PARTICLE SIZE 80 ASTM MESH
SOLUBILITY IN WATER INSOLUBLE
TAPPED DENSITY 0.65-0.80 G/ML
MELTING POINT 150°-153° C

SHELF LIFE

TWO YEARS MINIMUM

REVISION DATE

5/3/2002

REVISION LEVEL

D

STANDARD PACKING: CORRUGATED BOX WITH POLY LINER, DATE CODE AND LOT NUMBER MARKED ON EACH CONTAINER.