

Certificate of analysis

Product Number: A12398

Product: (S)-(-)-Nicotine 99 %

Lot no: 61300054

Appearance	Colourless or brownish viscous liquid
Identification	A (UV Spectrum) must be comparable to Nicotine reference (i) Maximum at about 259 nm /complies (ii) Minimum at about 225nm/complies B (IR Absorption) Spectrum must be comparable to that of Nicotine reference spectrum/complies
Specific Optical Rotation	-134.12 using 96 % EtOH @ 25 C -145.89 using anhy. EtOH @ 20 °C
Water Content	0.10 %
Heavy Metals	Colour Less Intense than Std ($\leq 0.002\%$)
Chromatographic Purity (HPLC)	Cotinine ND Myosmine ND Nicotine-1'-N-oxide ND β -Nicotyrine ND Anatabine ND Anabesine ND Nornicotine ND Any other impurity ND
(Sum of all impurities: $\leq 0.8 \%$)	
Chromatographic Purity (GC)	Largest impurity < 0.1 % Total impurity < 0.1 %
Total Hydrocarbons	95.0 ppm
Assay (by Non- Aqueous Titration)	99.5 % of $C_{10}H_{14}N_2$ (Nicotine) as calculated on anhy. basis.

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