

# Bufotenine — A Hallucinogen in Ancient Snuff Powders of South America and a Drug of Abuse on the Streets of New York City

---

**REFERENCE:** Chamakura RP: Bufotenine — A hallucinogen in ancient snuff powders of South America and a drug of abuse on the streets of New York City; *Forensic Sci Rev* 6:1–18; 1994.

**ABSTRACT:** Bufotenine, an isomer of psilocin, is a controlled Schedule I hallucinogenic substance under the New York state and federal laws. Bufotenine was identified in 34 case samples received at the New York City Police Laboratory during the last year. The samples were hard, resinous, dark reddish-brown material, sold on the streets as “hashish”. A few other cases were also seized in Orlando and Tampa, FL. Natural sources of bufotenine are: (a) plant material, mostly seeds of the genus *Anadenanthera* (formerly *Piptadenia*); (b) plant organs of other genera; (c) toads (*Bufo marinus*, *B. vulgaris*, *B. viridis*, and *B. alvaris*); and (d) mushrooms (*Amanita mappa*, *A. citrina*, *A. porphyria*, and *A. tomentella*). The genus *Anadenanthera* is native to South America and West Indies. Historically, material made from the seeds of genus *Anadenanthera* was, and in isolated areas is still, used by the native Indians of South America and West Indies. Native Indians make intoxicating snuffs from the seeds of *Anadenanthera*. Recently, bufotenine was identified in 1,200-year-old archaeological samples of an *Anadenanthera* material found in an excavated tomb in Northern Chile. Historical and published literature on the pharmacology, toxicology, and biological effects of bufotenine and bufotenine-containing material are reviewed. The case material was probably derived from the seeds of genus *Anadenanthera*. There were no prior reported cases of this material being used outside the native Indian areas of South America and West Indies. Indications are that in New York City this material is smoked in combination with marijuana. Bufotenine in case material can be identified by color tests, thin-layer chromatography, and gas chromatography/mass spectrometry (GC/MS). Though the mass spectra of bufotenine and psilocin (parent compounds and monoacetyl and diacetyl derivatives) are very similar, their GC retention times are different. Case samples also gave multiple GC peaks, probably due to the added ingredients during the preparation of this material.

**KEY WORDS:** Bufotenine, forensic chemistry, genus *Anadenanthera*, hallucinogen, indole alkaloid, tryptamine derivative.

---