Drug Enforcement Administration
Diversion Control Division
Drug & Chemical Evaluation Section

March 2025
DEA/DC/DOE

ALPHA-METHYLTRYPTAMINE

(Street Name: Spirals)

Introduction:

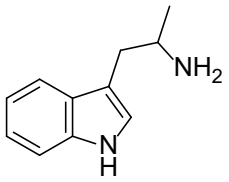
alpha-Methyltryptamine (AMT) is a tryptamine derivative and shares pharmacological similarities with schedule I hallucinogens, such as alpha-ethyltryptamine; *N*,*N*-dimethyltryptamine; psilocybin; and LSD. Since 1999, AMT has become popular among drug abusers for its hallucinogenic-like effects. In the 1960s, following extensive clinical studies on AMT as a possible antidepressant drug, the Upjohn Company concluded that AMT was a toxic substance and that AMT produces psychosis.

Licit Uses:

AMT has no currently accepted medical uses in treatment in the United States.

Chemistry:

AMT has the molecular formula $C_{11}H_{14}N_2$ and a molecular weight of 174.24 g/mol. The hydrochloride salt of AMT is a white crystalline powder. The chemical structure of AMT is shown below:



Pharmacology:

AMT, similar to several other schedule I hallucinogens, binds with moderate affinities to serotonin (5-HT) receptors (5-HT1 and 5-HT2). AMT inhibits the uptake of monoamines (especially 5-HT)—the brain chemicals important for sensory, emotional, and other behavioral functions—and is a potent inhibitor of monoamine oxidase (MAO) (especially MAO-A)—an enzyme critical for the metabolic degradation of monoamines.

AMT has been shown to produce locomotor stimulant effects in animals. The stimulant effects of AMT are hypothesized to be mediated by 5-HT and dopamine systems. In animals, AMT produces behavioral effects that are substantially similar to those of 4-methyl-2,5-dimethoxyamphetamine (DOM) and methylene-dioxymethamphetamine (MDMA), both schedule I hallucinogens.

In humans, AMT elicits subjective effects, including hallucinations. AMT has an onset of action of approximately 3–4 hours and a duration of approximately 12–24 hours; however, in some subjects, AMT may produce an extended duration of 2 days. Subjects report uncomfortable feelings, muscular tension, nervous tension, irritability, restlessness, unsettled feeling in stomach, and the inability to relax and sleep. AMT can alter sensory perception and judgment.

AMT can pose serious health risks to the user and the general public. Abuse of AMT led to two emergency department admissions and one death. AMT increases blood pressure and heart rate, dilates pupils, causes deep tendon reflexes, and impairs coordination.

Illicit Uses:

AMT is abused for its hallucinogenic effects and is used as substitute for MDMA. AMT is often administered orally as either a powder or capsules at doses ranging from 15–40 mg. Other routes of administration include smoking and snorting.

User Population:

The main abusers of AMT are youth and young adults. High school students and U.S. soldiers have used internet websites to obtain and abuse AMT.

Illicit Distribution:

The Drug Enforcement Administration's National Forensic Laboratory Information System (NFLIS) Drug database is a system that collects drug analysis identification information from participating federal, state, and local forensic drug laboratories. NFLIS-Drug received the first report of AMT in 1999. Reports of AMT increased from 10 in 2002 to 31 in 2003. In the years after temporary scheduling of AMT in 2003, the number of reports declined. Reports of AMT to NFLIS-Drug increased for a period between 2012 and 2014, peaking in 2013 with 49 reports, before declining again. Recently, the number of reports of AMT to NFLIS-Drug have totaled only 3 in 2019, 0 in 2020, 1 in 2021, 2 in 2022, and 0 since then.

In the United States, AMT has been illicitly available from foreign chemical companies and internet websites. There is also evidence of attempted clandestine production of AMT.

Control Status:

AMT is controlled in schedule I of the Controlled Substances Act.

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section; Fax 571-362-4250, Telephone 571-362-3249, or E-mail DPE@dea.gov.