Drug Enforcement Administration
Office of Diversion Control
Drug & Chemical Evaluation Section

ALPHA-METHYLTRYPTAMINE
(Street Name: Spirals)

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DEA/OD/ODE

Introduction:

Alpha-methyltryptamine (AMT) is a tryptamine derivative and shares many pharmacological similarities with those of 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 produces psychosis.

Licit Uses:

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

Chemistry/Pharmacology:

The hydrochloride salt of AMT is a white crystalline powder.

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 and is a potent inhibitor of monoamine oxidase (MAO) (especially MAO-A), an enzyme critical for the metabolic degradation of monoamines, the brain chemicals important for sensory, emotional and other behavioral functions. AMT has been shown to produce locomotor stimulant effects in animals. It has been hypothesized that both 5-HT and dopamine systems mediate the stimulant effects of AMT. In animals, AMT produces behavioral effects that are substantially similar to those of 1-(2,5-dimethoxy-4-methylphenyl)-2-aminopropane (DOM) and methylene-dioxymethamphetamine (MDMA), both schedule I hallucinogens, in animals.

In humans, AMT elicits subjective effects including hallucinations. It has an onset of action of about 3 to 4 hours and duration of about 12 to 24 hours, but may produce an extended duration of 2 days in some subjects. 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 and 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, and causes deep tendon reflexes and impairs coordination.

Illicit Uses:

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

User Population:

Youth and young adults are the main abusers of AMT. Internet websites are a source that high school students and United States soldiers have used to obtain and abuse AMT.

Illicit Distribution:

The National Forensic Laboratory Information System is a DEA database that collects scientifically verified data on drug items and cases submitted to and analyzed by state and local forensic laboratories. The System to Retrieve Information from Drug Evidence (STRIDE) provides information on drug seizures reported to and analyzed by DEA laboratories. According to the System to Retrieve Information from Drug Evidence (STRIDE) data, the first recorded submission by law enforcement to DEA laboratories of a drug exhibit containing AMT occurred in 1999.

NFLIS and STRIDE indicate that reports of AMT by federal, state, and local forensic laboratories increased from 10 in 2002 to 31 in 2003. In the years after temporary scheduling of AMT in 2003, the number of reports declined. In 2004, there were six reports and in 2005, there were two reports. From 2006 to 2011, NFLIS and STRIDE indicated a total of five AMT reports in those databases. However, in 2012, the number of AMT reports in NFLIS and STRIDE increased to 25. AMT has been illicitly available from United States and foreign chemical companies and from Internet websites. Additionally, there is evidence of attempted clandestine production of AMT.

Control Status:

The Drug Enforcement Administration (DEA) placed AMT temporarily in schedule I of the Controlled Substances Act (CSA) on April 4, 2003, pursuant to the temporary scheduling provisions of the CSA (68 FR 16427). On September 29, 2004, AMT was permanently controlled as a schedule I substance under the CSA (69 FR 58050).

Comments and additional information are welcomed by the Drug and Chemical Evaluation Section, Fax 202-353-1263, telephone 202-307-7183, or Email ODE@usdoj.gov.