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

4-Iodo-2,5-Dimethoxyphenethylamine
(Street Names: 2C-I, i)

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Introduction:

4-Iodo-2,5-dimethoxyphenethylamine (2C-I, 4-iodo-2,5-DMPEA) is a synthetic drug abused for its hallucinogenic effects. It has been encountered in a number of states by federal, state, and local law enforcement agencies.

Licit Uses:

2C-I has no approved medical uses in the United States.

Chemistry and Pharmacology:

4-Iodo-2,5-dimethoxyphenethylamine is closely related to the phenethylamine hallucinogens, 1-(4-bromo-2, 5-dimethoxyphenyl)-2-aminopropane (DOB) and 2,5-dimethoxy-4-methylamphetamine (DOM). Like DOM and DOB, 2C-I displays high affinity for central serotonin receptors. 2C-I selectively binds to the 5-HT receptor system.

Drug discrimination studies in animals indicate that 2C-I produces discriminative stimulus effects that are similar to those of several schedule I hallucinogens such as lysergic acid diethylamide (LSD), N,N-dimethyltryptamine (DMT) and methylene-dioxymethamphetamine (MDMA). In rats trained to discriminate LSD, DMT or MDMA from saline, 2C-I fully substituted for these schedule I hallucinogens.

In humans, 2C-I produces dose dependent psychoactive effects. User reports have mentioned oral doses between 3 and 25 mg, producing LSD-like hallucinations and visual distortions, and MDMA-like empathy. Onset of subjective effects following 2C-I ingestion is around 40 minutes with peak effects occurring at approximately 2 hours. Effects of 2C-I can last up to 8 hours. Various users reported delayed desired effects compared to related drugs, which may result in some users taking additional doses or other drugs which may increase the risk of toxicity or accidental over dosage.

Radioimmunoassay detection system that is commonly used for testing amphetamine and hallucinogens is not expected to detect 2C-I. In the Marquis Reagent Field Test, 2C-I produces a dark green to black color.

Illicit Uses:

2C-I is abused for its hallucinogenic effects. 2C-I is taken orally in tablet or capsule forms or snorted in its powder form. It has also been found impregnated on small squares of blotter paper for oral administration, which is a technique often seen for the distribution and abuse of LSD. The drug has been misrepresented by distributors and sold as other hallucinogens such as MDMA and LSD.

User Population:

2C-I is used by the same population as those using "Ecstasy" and other club drugs, high school and college students, and other young adults in dance and nightlife settings.

Illicit Distribution:

2C-I is distributed as capsules, tablets, in powder form, or in liquid form. DEA identified occurrences of the drug being purchased through Internet retailers. In one instance, it was purchased in powder form through the Internet and encapsulated for retail, at a street value of $6 per capsule. In Europe, 2C-I has often been seized in tablet form with an 'i' logo which may be to signify that it is not ecstasy (MDMA).

The National Forensic Laboratory Information System (NFLIS) 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. In 2009, 33 of the exhibits submitted to federal, state and local forensic laboratories were identified as 2C-I. To date, there are 29 exhibits identified as 2C-I in 2010.

Control Status:

Currently, 2C-I is not a scheduled drug under the Controlled Substances Act (CSA). However, 2C-I can be considered an analogue of 2C-B, which is a schedule I hallucinogen under the CSA (60 FR 28718). As such, 2C-I can be treated on a case-by-case basis as if it were a schedule I controlled substance, if it is distributed with the intention for human consumption [21 U.S.C. 802 (32), 21 U.S.C. 813].

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.