Drug Enforcement Administration
Diversion Control Division
Drug & Chemical Evaluation Section

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4-IODO-2,5-DIMETHOXYPHENETHYLAMINE

(Street Names: 2C-I, i)

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 several states by federal, state, and local law enforcement agencies.

Licit Uses:

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

Chemistry:

4-Iodo-2,5-dimethoxyphenethylamine is closely related to the phenethylamine hallucinogens 4-bromo-2,5-dimethoxyamphetamine (DOB) and 2,5-dimethoxy-4-methylamphetamine (DOM).

Pharmacology:

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 3,4-methylenedioxymethamphetamine (MDMA, sold as "Ecstasy"). 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. Users' reports have mentioned oral doses between 3 and 25 mg produce LSD-like hallucinations, 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 and lasting up to 8 hours. Various users reported delayed desired effects compared to related drugs; this can lead some users to take additional doses or other drugs, which may increase the risk of toxicity or accidental over dosage.

The 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. The Drug Enforcement Administration (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 sales 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 MDMA or "Ecstasy."

DEA's National Forensic Laboratory Information System (NFLIS) Drug database collects scientifically verified data on drug items and cases submitted to and analyzed by participating federal, state, and local forensic drug laboratories. NFLIS-Drug received the first report of 2C-I in 2003 and has a total of 629 reports from 41 states. Reports of 2C-I peaked at 95 reports in 2011 and in 2012, before declining to 1 report in 2022, 0 in 2023, and 1 in 2024 (reports still pending).

Control Status:

2C-I 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 Email DPE@dea.gov.