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DEA/DC/DOE

## FLUALPRAZOLAM

(Street Name: Flualp)

### Introduction:

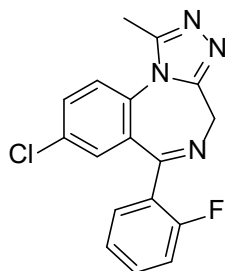
Flualprazolam is a triazolobenzodiazepine, which is chemically related to a class of drugs known as benzodiazepines. Benzodiazepines produce central nervous system (CNS) depression and are commonly used to treat panic disorders, insomnia, and anxiety. Flualprazolam is generally encountered in pill form.

### Licit Uses:

Benzodiazepines are widely prescribed drugs; however, flualprazolam does not currently have an accepted medical use in the United States.

### Chemistry:

Flualprazolam (chemically known as 8-chloro-6-(2-fluorophenyl)-1-methyl-4H-benzo[1,2,4]triazolo[4,3-a][1,4]diazepine) is a triazolobenzodiazepine and is structurally similar to alprazolam and other schedule IV benzodiazepines. Flualprazolam is composed of a benzene ring fused to a seven-membered 1,4-diazepine ring and also contains a fused triazolo ring. A methyl (–CH<sub>3</sub>) group is attached at the 1-position, a 2-fluorophenyl ring is attached at the 6-position, and a chlorine is attached at the 8-position of the triazolobenzodiazepine structure. Flualprazolam has a molecular formula of C<sub>17</sub>H<sub>12</sub>ClFN<sub>4</sub> and a molecular weight of 326.76 g/mol. The structure of flualprazolam is shown below:



### Pharmacology:

Information on the pharmacology of flualprazolam is limited in published literature. However, recent in vitro data obtained by the Drug Enforcement Administration (DEA) indicate that in the presence and absence of GABA, flualprazolam binds to GABA receptors with a greater affinity compared to diazepam (a GABA receptor agonist) and flumazenil (a nonspecific GABA receptor antagonist). Additionally, in drug discrimination studies, flualprazolam fully substituted for the discriminative stimulus effects of midazolam. Although there are no studies regarding the effects of flualprazolam in humans, anecdotal reports online describe sedation and physical impairment following oral ingestion, which suggests prolonged and severe sedation associated with coma. Following oral administration, the onset of action of flualprazolam is reported to be 10–30 minutes and a long duration of action (6–14 hour) compared to the relatively short-acting alprazolam.

### Illicit Uses:

Flualprazolam is generally abused for its sedative-hypnotic

effects. Reports from online drug user forums describe this substance to be similar to clonazepam and alprazolam. Recently, the Centers for Disease Control and Prevention released “The Fentalog Study”, which utilizes data collected from 10 geographically diverse hospitals in 9 states across the United States. As of December 2024, the study tested 1,476 samples between February 2020 and August 2024; of these, 8% of blood specimens from suspected opioid-involved overdoses tested positive for illicit benzodiazepines.

Toxicological data indicate that flualprazolam is a public health concern. The American Association of Poison Control Centers’ National Poison Data System, which collects data from the nation’s 54 poison centers, reported 0 flualprazolam single substance exposures in 2014 and 2015, 2 exposures in 2018, and 11 in 2019. Additionally, the United Nations Office on Drugs and Crime (UNODC) Early Warning Advisory on new psychoactive substances (NPS) Toxicology Portal (Tox-Portal)—an online tool to collect toxicological and harm data associated with NPS use—has published biannual reports (Current NPS Threats) to identify most harmful NPS since 2019. In 2023, flualprazolam was the second most common benzodiazepine-type NPS reported in postmortem (n=20) and DUID (n=39) cases. In 2024, UNODC reported that benzodiazepine-type NPS continued to constitute the greatest number of NPS reported to the Tox-Portal across postmortem, DUID (68%), and clinical admission (56%) cases.

### User Population:

Flualprazolam is used as a recreational substance in the United States. This substance is generally abused by young adults, especially males.

### Illicit Distribution

Flualprazolam can be purchased via the internet as a research chemical. This substance is generally encountered in pill form, and its external markings have been found to mimic that of Xanax® and Klonopin®.

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 1 report of flualprazolam in 2017; 114 in 2018; 2,012 in 2019; 4,819 in 2020; 2,161 in 2021; 912 in 2022; 292 in 2023; and 134 in 2024 (reports still pending).

### Control Status:

Flualprazolam is controlled in schedule I of the Controlled Substances Act. At the 2020 Commission on Narcotic Drugs’ 63rd session, the Commission decided to include flualprazolam in Schedule IV of the 1971 Convention on Psychotropic Substances.

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](mailto:DPE@dea.gov).