



EU EARLY WARNING SYSTEM FORMAL NOTIFICATION

Date issued	08 July 2022	RCS ID	EU-EWS-RCS-FN-2022-0019
Issued by	EMCDDA	Transmitted by	Action on New Drugs Sector, EMCDDA
Subject	Formal notification of <i>N</i> -ethyl-2-[6-methyl-2-(4-methylphenyl)imidazo[1,2- <i>a</i>]pyridin-3-yl]acetamide (<i>N</i> -ethyl zolpidem) by Germany as a new psychoactive substance under the terms of Regulation (EC) No 1920/2006 and Council Framework Decision 2004/757/JHA		

1. Read me first

This document provides formal notification of the analytical identification of *N*-ethyl-2-[6-methyl-2-(4-methylphenyl)imidazo[1,2-*a*]pyridin-3-yl]acetamide (*N*-ethyl zolpidem) for the first time in Europe.

Please report any additional data you have on this substance to: ews@emcdda.europa.eu

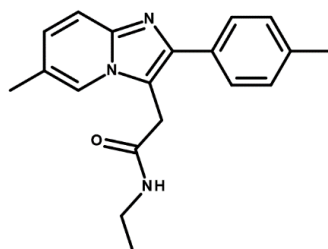
2. Data use restrictions

As with all formal notifications issued by the EU EWS remember that they may contain information that could be regarded as sensitive. Should you provide some of the information in this notification to other groups we would ask that you exercise your best judgment on what information needs to be provided. If you have any questions in this respect, please contact us.

3. Names of substance and other identifiers

- IUPAC name: *N*-ethyl-2-[6-methyl-2-(4-methylphenyl)imidazo[1,2-*a*]pyridin-3-yl]acetamide
- Chemical names: *N*-ethyl-2-[6-methyl-2-(*p*-tolyl)imidazo[1,2-*a*]pyridin-3-yl]acetamide
- Common name: *N*-ethyl zolpidem
- Chemical formula: C₁₉H₂₁N₃O
- Molecular weight: 307.39
- CAS Registry number: 82626-54-8
- InChIKey: GQJSOTATHCNTSW-UHFFFAOYSA-N

Molecular structure



4. Substance classification

Other

5. Detection

Type: Seizure

Case Report identifier: EDND-CR-2022-367

Details: *N*-ethyl zolpidem was identified in 0.82 grams of white powder seized by Bavarian State Police on 1 May 2021.

The substance was analytically confirmed using GC-MS, (HR)-LC-MS, ATR-IR, GC-sIR and NMR by the EU-project ADEBAR plus. *N*-ethyl zolpidem was identified in a mixture of sugar in the seized sample.

6. Chemistry and Analysis

Chemical classification: azacyclic; other azacyclic

N-ethyl zolpidem is an imidazo[1,2-*a*]pyridine, structurally related to the internationally controlled zolpidem (Schedule IV of the United Nations 1971 Convention on Psychotropic Substances). Zolpidem is a non-benzodiazepine hypnotic-sedative (one of the so-called 'Z-drugs'), sold under the brand name Ambien, used for the short-term treatment of insomnia. *N*-ethyl zolpidem is a structural isomer of zolpidem and differs from zolpidem due to the replacement of *N,N*-dimethyl with *N*-ethyl.

N-ethyl zolpidem also shares structural similarities with zopiclone, zaleplon and pagoclone, formally notified in 2012, 2017 and 2019, respectively.

N-ethyl zolpidem was originally mentioned in a 1982 patent on 'Imidazo[1,2-*a*]pyridine derivatives and their therapeutic use' [1].

7. Pharmacology and toxicology

Pharmacological classification: anxiolytic or sedative-hypnotic

There is no information available on the pharmacology and toxicology of *N*-ethyl zolpidem. Based on its structural similarity with zolpidem and other 'Z drugs', such as zopiclone and zaleplon, *N*-ethyl zolpidem is expected to have sedative hypnotic effects.

8. Further information

Further information on this substance is available on the EDND profile:

<https://ednd2.emcdda.europa.eu/ednd/substanceProfiles/1321>

9. Acknowledgements

The German National Focal Point, Bavarian State Police and the EU-project ADEBAR plus are kindly acknowledged for the information and analytical data provided.

10. Attachments

None.

11. References

[1] Kaplan JP, et al. Imidazo [1, 2-a] pyridine derivatives and their therapeutic use. 1982 European Patent EP50563 A1.