European Monitoring Centre for Drugs and Drug Addiction

EU EARLY WARNING SYSTEM FORMAL NOTIFICATION

Date issued	16 July 2021	RCS ID	EU-EWS-RCS-FN-2021-0028
Issued by	EMCDDA	Transmitted by	Action on New Drugs Sector, EMCDDA
Subject	Formal notification of *N*-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-hexyl-1*H*-indazole-3-carboxamide (ADB-HEXINACA) 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*-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-hexyl-1*H*-indazole-3-carboxamide (ADB-HEXINACA) for the first time in Europe.

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

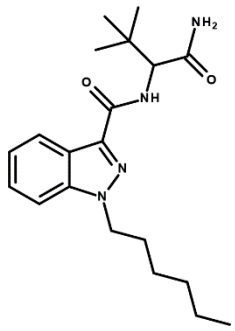
2. Data use restrictions

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*-(1-amino-3,3-dimethyl-1-oxobutan-2-yl)-1-hexyl-1*H*-indazole-3-carboxamide
- Chemical names: *N*-(1-carbamoyl-2,2-dimethyl-propyl)-1-hexyl-indazole-3-carboxamide
- Common name: ADB-HEXINACA
- Other names: ADB-HxINACA; ADB-HINACA; ADMB-HEXINACA
- Chemical formula: $C_{20}H_{30}N_4O_2$
- Molecular weight: 358.48
- CAS Registry number: not registered.
- InChIKey: PZMLDAGKYPJWHJ-UHFFFAOYSA-N

Molecular structure



4. Substance classification

Synthetic cannabinoid

5. Detection

Type: Seizure
Case Report identifier: EDND-CR-2021-610

Details: ADB-HEXINACA was identified in 6.3 grams of plant/herbal material, in 17 unmarked plastic foil bags, seized by PI Nürnberg Mitte, on 25 May 2021.

The substance was analytically confirmed using GC-MS, FTIR, HR-LC-MS and NMR by the EU-funded project ADEBAR plus. The synthetic cannabinoid EDMB-PINACA was also identified in the plant/herbal material with the base form of ADB-HEXINACA.

Other detections

ADB-HEXINACA was identified in plant material seized in the United States in April 2021. The substance was analytically confirmed using GC-MS with reference material and LC-QTOF by NPS Discovery at the Center for Forensic Science Research and Education (CFSRE) [1].

6. Chemistry and Analysis

Chemical classification: azacyclic; azole; indazole

ADB-HEXINACA is an indazole-based synthetic cannabinoid and a higher homologue of ADB-PINACA and ADB-BUTINACA, formally notified in 2013 and 2019 respectively. It differs from ADB-PINACA and ADB-BUTINACA due to the replacement of the pentyl and butyl tails with a hexyl tail.

ADB-HEXINACA also shares structural similarities with ADB-CHMINACA, which was formally notified in 2014. In this case, the cyclohexylmethyl moiety in ADB-CHMINACA is replaced with a hexyl tail. ADB-CHMINACA was risk assessed in November 2017 and subsequently placed under international control in 2019 (Schedule II of the 1971 United Nations Single Convention on Psychotropic Substances).

A reference standard for the *S*-isomer of ADB-HEXINACA is available, which is reported to be soluble in DMF (10 mg/ml), DMSO (10 mg/ml); ethanol (10 mg/ml) and ethanol:PBS (pH 7.2; 1:8; 0.1 mg/ml) [2].

ADB-HEXINACA contains a stereogenic centre and therefore two possible enantiomers may exist.

7. Pharmacology and toxicology

Pharmacological classification: cannabinoid

There is no information available on the pharmacology and toxicology of ADB-HEXINACA. Based on its structural similarity with other synthetic cannabinoids, such as ADB-CHMINACA, ADB-HEXINACA is expected to act as a cannabinoid receptor agonist.

8. Further information

Further information on this substance is available on the EDND profile:
https://ednd2.emcdda.europa.eu/ednd/substanceProfiles/1240

9. Acknowledgements

The German National Focal Point, PI Nürnberg Mitte and the EU-funded project ADEBAR plus are kindly acknowledged for the information and analytical data provided.

10. Attachments

None.

11. References

[1] https://www.npsdiscovery.org/wp-content/uploads/2021/04/ADB-HEXINACA_042921_CFSRE-Chemistry_Report.pdf?mc_cid=6b77be1125&mc_eid=61f76987ec%20
[2] https://www.caymanchem.com/product/33820/adb-hexinaca