Availability of nitazenes for purchase in Australia and internationally via cryptomarkets, September 2021 - August 2025

Nicola Man, Agata Chrzanowska, Rachel Sutherland, Vandit Sadaphale, Monica J. Barratt, Raimondo Bruno, and Amy Peacock

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For further information: drugtrends@unsw.edu.au | https://doi.org/10.26190/unsworks/31698

5,945 nitazene listings were identified in cryptomarkets from Sep 2021 to Aug 2025.

While 3 in 4 nitazene listings were advertised as available for delivery to Australia over the total period, there was a decline over time.

North America overtook Asia and became the primary geographic origin of nitazene listings by the end of 2023.

The most frequently listed nitazenes at the beginning and end of the monitoring period.

Introduction

Nitazenes are a class of highly potent synthetic opioids, first developed in the 1950s for their potential analgesic effects but never approved for therapeutic use given their toxicity risk (1). More recently, clandestine laboratories have started illicitly manufacturing nitazenes (2), with subsequent health harms documented in a number of countries (3, 4). In Australia, there have been increasing detections of nitazenes, and growing reports of harms from their use (5-9). While only a small proportion of drug purchases occur via cryptomarkets ('darknet marketplaces'), there is some evidence that these marketplaces are being used for the purchase of new psychoactive substances like nitazenes in Australia (10, 11). We previously issued a bulletin on availability of nitazenes for purchase on cryptomarkets from February 2023 to January 2024 (12). Given rising concerns regarding nitazenes, the aim of this bulletin was to extend and update the time series to:

1) Describe the trend in nitazene listings, overall and those that deliver to Australia, from September 2021 to August 2025; and,
2) Identify the most frequently listed nitazenes on cryptomarkets.

Methods and Results

- Data on drug listings were collected for four years from 37 cryptomarkets (excluding Abacus and Televend), first twice a month for the period from September 2021 to May 2025 and then once per month from June to August 2025. Televend was excluded because it is a variant on the traditional cryptomarket (13). Abacus was excluded because of the labour-intensive nature of the scrape preventing regular scrapes from being

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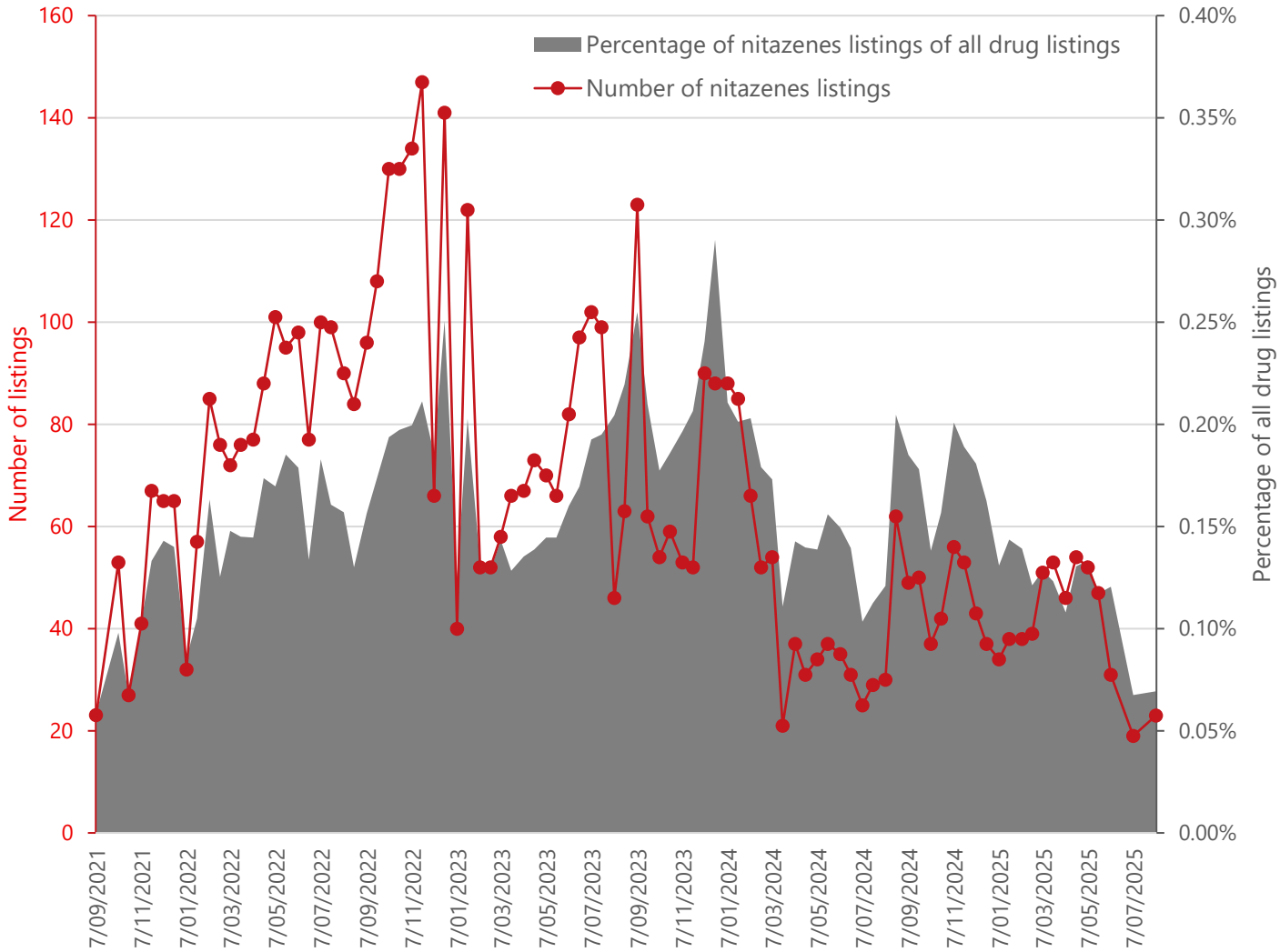
undertaken. We note that Abacus had closed and ceased operation in June 2025. For more information, refer to the Drugs and New Technologies (DNeT) bulletin (14).

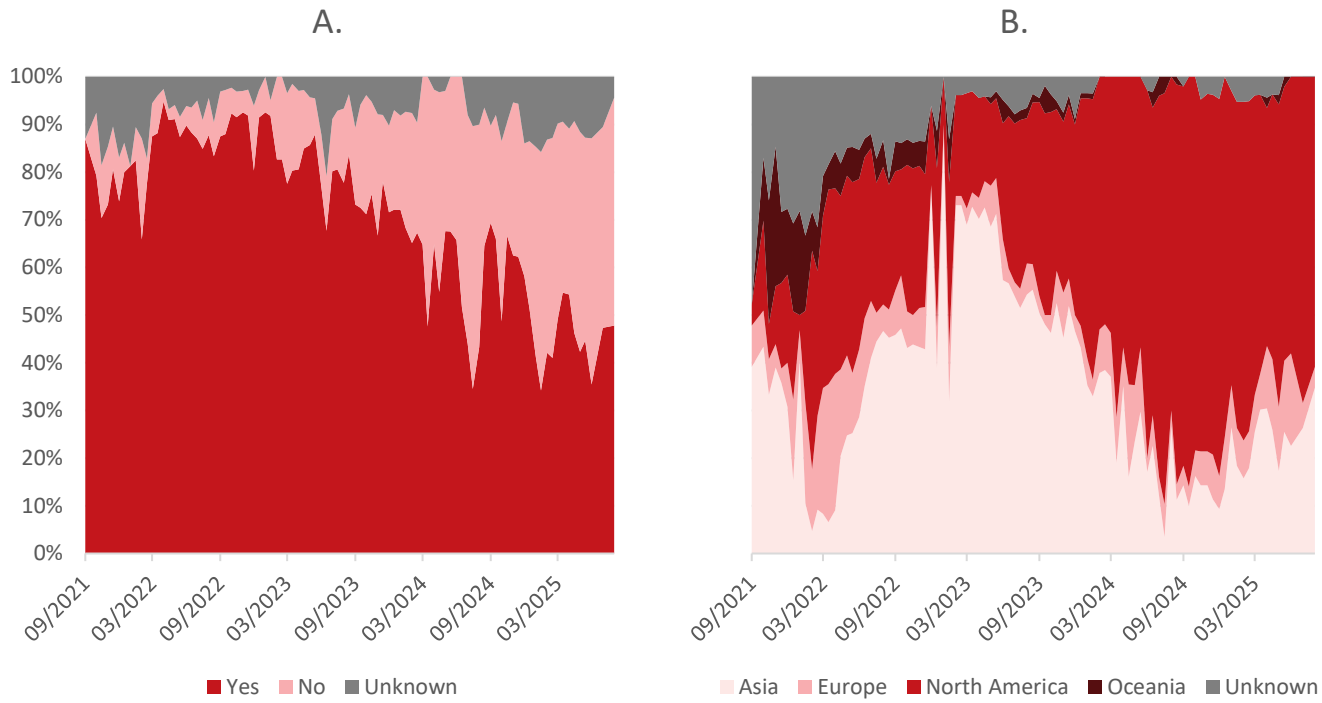
Figure 1. Total number of nitazene listings and as percentage of all cryptomarket drug listings, September 2021 to August 2025



- A total of 5,945 listings selling nitazenes were identified. This constituted 0.16% of all drug listings in the 4-year period. The percentage (of all drug listings) and number of nitazene listings on the cryptomarkets fluctuated over time, varying between 0.06% and 0.29% with the lowest percentages at the beginning and end of the four-year period (Figure 1).
- Approximately 3 in 4 nitazene listings (75%) were offered as available for delivery to Australia[1], although this varied between 34% and 95%, with a notable decline in the last two years (Figure 2A).
- There has been a shift in the origin of nitazene listings from Asia (predominantly China) to North America (predominantly the US) over the period from September 2021 to August 2025. North America was the primary geographic origin of nitazene listings by the end of 2023 (Figure 2B).

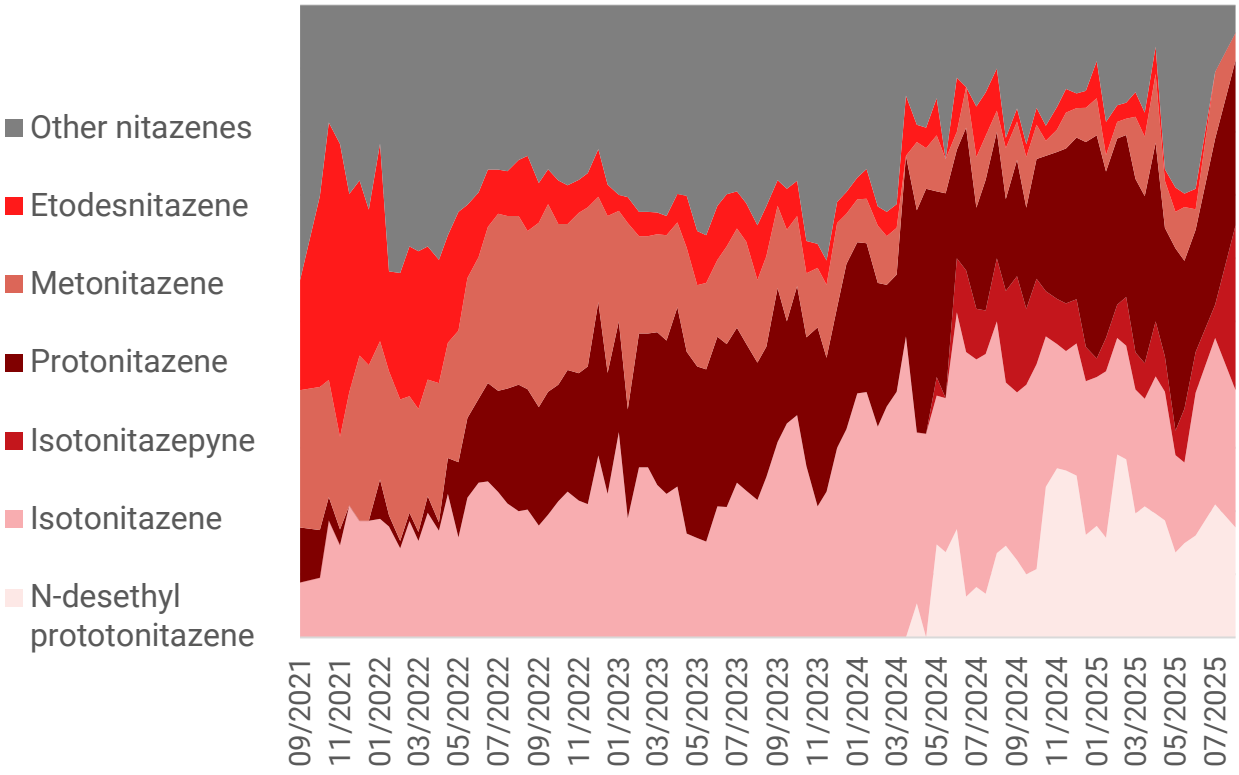
[1] Of the 5945 listings, delivery information could not be extracted for 1785 listings (30.0%). These were cross-filled with destination information using vendor data in other markets where they can be verified as unambiguous for their delivery to Australia (i.e. specified Australia, Oceania and/or worldwide) or otherwise, for all or most (>95%) of their listings where delivery information were available. This reduces the number with no delivery information to 438 listings (7.4%).

Figure 2. Nitazene cryptomarket listings by delivery to Australia (A) and geographic origin (B), September 2021 to August 2025



- Isotonitazene, protonitazene and metonitazene were the most frequently identified nitazenes in the four-year period; this was consistent when studying overall listings and specifically those which offered delivery to Australia (Table 1).

Figure 3. Nitazene cryptomarket listings by nitazene type



Note: Other nitazenes include listings with >1 nitazene identified.

Table 1. Specific nitazenes identified in cryptomarket listings

	Number and percentage of listings	
Nitazene	**All (% of total nitazene listings)**	**Offer delivery to Australia (% of total nitazene listings delivering to Australia)**
Isotonitazene[1]*	1388 (23%)	783 (17%)
Protonitazene[2]*	1128 (19%)	773 (17%)
Metonitazene[3]*	971 (16%)	861 (19%)
Etodesnitazene[4]*	514 (9%)	377 (8%)
Etonitazepyne	244 (4%)	213 (5%)
Etomethazene	213 (3%)	212 (5%)
N-desethyl protonitazene	209 (4%)	178 (4%)
Protonitazepyne[5]	209 (4%)	168 (4%)
Fluonitazene	201 (3%)	194 (4%)
Metonitazepyne	175 (3%)	137 (3%)
Butonitazene	145 (2%)	142 (3%)
N-desethyl etonitazene	137 (2%)	110 (2%)
Isotonitazepyne*	96 (2%)	73 (2%)
N-desethyl isotonitazene[6]	87 (1%)	73 (2%)
Etonitazene[7]	45 (0.8%)	25 (1%)
Metodesnitazene	29 (0.5%)	29 (1%)
Methoxy-nitazene	19 (0.3%)	19 (0%)
Etonitazepipne	18 (0.3%)	15 (0%)
Protodesnitazene	9 (0.2%)	6 (0%)
Isotodesnitazene	6 (0.1%)	6 (0%)
>1 nitazene identified[8]	102 (2%)	85 (2%)
Total	**5,945 (100%)**	**4,484 (100%)**

Note. [1]Isotonitazene includes those mis-spelt as isotoniazene. [2]Protonitazene includes propoxynitazene, pronitazene, and those mis-spelt as rotonitazene. [3]Metonitazene includes those mis-spelt as metanitazene. [4]Etodesnitazene includes etazene and those mis-spelt as etazen. [5]Protonitazepyne includes N-pyrrolidino protonitazene. [6]N-desethyl isotonitazene is also known as norisotonitazene but the synonym was not identified in the cryptomarket listings. [7]Etonitazene includes those mis-spelt as etonitazen. [8]These are listings with more than one specific nitazene identified. *Underlined nitazenes are also in Figure 3 with the cells in corresponding colour for each nitazene.

- However, between 2021 to 2025, the variety and prevalence of specific nitazene types on cryptomarkets has changed, with compounds like etodesnitazene and metonitazene becoming less prominent while substances such as protonitazene, N-desethyl protonitazene and isotonitazepyne becoming more common (Figure 3).

Discussion

Nitazenes were listed for sale across a range of cryptomarkets but represent only a small proportion of all drug listings, declining notably since late 2023. Approximately three-quarters of nitazene listings across the monitoring period were advertised as available for shipping to Australia, though this proportion has decreased in recent years. While most early nitazene listings were identified as originating from Asia, since late 2023 North America (specifically the US) has become the primary reported region of origin. This shift may reflect strengthened regulatory controls on synthetic opioids in China and other countries, as well as change in cryptomarkets monitored.

All of the most common nitazenes identified on cryptomarkets (Figure 3) have also been detected in Australia through clinical, forensic, and epidemiological data, as well as drug alerts (5-9, 15, 16, 17). In addition, several new nitazene analogues were observed on cryptomarkets which, at the time of emergence, had not yet been detected in Australia (e.g., etomethazene, metodesnitazene). This reinforces the value of cryptomarket

monitoring in providing early insight into the dynamic nature of drug markets and highlighting the emergence and spread of new nitazene variants over time.

Drug markets adapt rapidly to regulatory changes, recently evolving more towards increasingly novel, potent, synthetic, and adulterated substances. These findings underscore the need for preparedness and agility in responding to emerging drugs of concern to reduce the risk of harm. Accessible, acceptable, and effective drug treatment and other harm reduction initiatives, such as take-home naloxone, remain critical. Expanding drug checking services equipped with advanced technologies capable of detecting new psychoactive substances, including nitazenes, will not only reduce harm but also enhance early identification of emerging substances (8, 9). Timely and effective communication of drug alerts, developed in partnership with people with lived and living experience of substance use, is likewise essential to enable harm reduction behaviours (9).

It is important to note that cryptomarket listings represent a proxy for availability rather than confirmed sales, and observed trends may be influenced by the highly dynamic nature of these markets, including the closure of several large platforms during the study period. In addition, only English-language markets were analysed; other evidence suggests non-English markets, particularly Russian-language markets, play a substantial role in the broader dark web ecosystem (3). Abacus market, which reportedly was the highest grossing Western dark web market up until closure in July 2025 and had design components targeted at Australian buyers (e.g., used Australian slang, had an Australian moderator), was also not captured in these analyses (18). Nonetheless, these data offer valuable insight into the evolving availability of nitazenes on cryptomarkets, the emergence of new variants, and the importance of robust monitoring systems capable of early detection and that enable rapid, effective response.

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