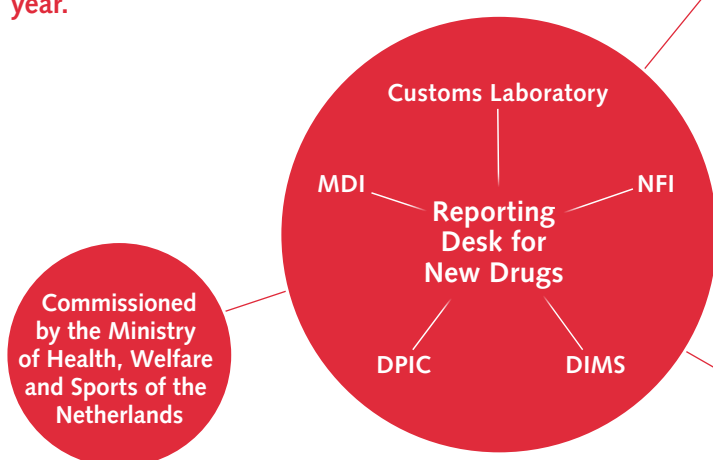


Annual Report 2021

Reporting Desk for New Drugs

What is the Reporting Desk for New Drugs?

The Reporting Desk for New Drugs is a large-scale national surveillance study in the Netherlands, which is coordinated by the Trimbos Institute. Through this surveillance study, data are collected about new psychoactive substances in the Netherlands. The Reporting Desk for New Drugs reports on which new psychoactive substances had been discovered to be present in the Netherlands, and if available, in which quantities these new psychoactive substances have been detected on the illicit drug market during the last year.



Organization: The Reporting Desk for New Drugs assembles, analyzes, and reports on data collected by a variety of organizations in the Netherlands about the production, trade, and consumption of new psychoactive substances. The Customs Laboratory of the Netherlands and the Netherlands Forensic Institute provide data about seized new psychoactive substances that have been sent to their laboratories for analysis. The Drugs Information and Monitoring System (DIMS) provides data about new psychoactive substances that have been detected in consumer samples submitted for laboratory analysis at a drug checking service¹. The Monitor Drug-related Incidents (MDI) and the Dutch Poisons Information Centre (DPIC) share data about adverse health-related events related to the use of new psychoactive substances. Additional information about new psychoactive substances being used in the Netherlands is also collected from pre-selected online discussion boards about drugs.

Application: The annual report from the Reporting Desk for New Drugs is used by the Ministry of Health, Welfare and Sports in the Netherlands and the Coordination point for Assessment and Monitoring new drugs (CAM²) to assess the distribution and possible risks associated with the sale, transport, and use of new psychoactive substances in the Netherlands.

What are new psychoactive substances?

The European Monitoring Centre for Drugs and Drug Addiction (EMCDDA) defines new psychoactive substances as "substances of abuse, either in a pure form or a preparation, that are not controlled by the 1961 Single Convention on Narcotic Drugs or the 1971 Convention on Psychotropic Substances, but which may pose a public health threat"³. The Reporting Desk for New Drugs focuses on substances that have been produced in and introduced to the illicit drug market for their psychoactive properties since the early 2000s.

A few substances, such as 2C-B, GHB/GBL, DMT, and ketamine, have also been included in the Reporting Desk for New Drugs. These substances are being monitored by the European Monitoring Centre for Drugs and Drug Addiction under the framework of the European Joint Action on new synthetic drugs.

New psychoactive substance groups

New psychoactive substances are usually classified according to their chemical structure or pharmacological properties. These classifications include:

- Synthetic cannabinoids
- Cathinones
- Phenethylamines
- Tryptamines
- Piperazines
- Other new psychoactive substances:
 - arylcyclohexylamines
 - synthetic opioids (i.e. fentanyl derivatives)
 - new benzodiazepines

Currently, there is no nationwide surveillance system for new psychoactive substances in the Netherlands, which means that underreporting of all new psychoactive substances is likely. However, the information from the Reporting Desk for New Drugs gives an indication of the situation regarding new psychoactive substances being present in the Netherlands on the illicit drug market.

2021 Highlights

In the Netherlands, a total of 98 different new psychoactive substances were reported to the Reporting Desk for New Drugs by the participating laboratories; 15 of these new psychoactive substances were detected on the illicit drug market in the Netherlands for the first time.

- Once again, cannabis adulterated with synthetic cannabinoids was found for sale on the illicit drug market in the Netherlands. In addition to MDMB-4en-PINACA, also ADB-BUTINACA was detected.
- In 2021, the Coordination point for Assessment and Monitoring new drugs subjected 3-MMC to a national risk assessment. On October 28 2021, 3-MMC was scheduled as a list II substance under the Opium act. Throughout the year, both the Customs Laboratory of the Netherlands and the Netherlands Forensic Institute detected 3-MMC in seized powders in high quantities. As well, the consumption of 3-MMC remained among the highest of new psychoactive substances, based on the number of drug samples submitted by consumers to DIMS. The Dutch Poisons Information Centre reported a considerable increase in the number of poisonings involving 3-MMC. Also, the Monitor Drug-related Incidents received an increased number of reports of adverse health-related events involving either 3-MMC or 4-MMC compared to the year before.

- Most likely due to the announcement that 3-MMC would be scheduled in 2021, the Customs Laboratory detected enormous amounts of 3-CMC. At DIMS however, consumers hardly submitted 3-CMC for analysis. The Dutch Poisons Information Centre reported only a few poisonings involving 3-CMC. Likewise, the Monitor Drug-related Incidents received only one report of an adverse health-related event involving 3-CMC.
- In April 2021, DIMS issued a warning for tablets missold as 2C-B containing a very high dose of DOC instead. The Monitor Drug-related Incidents received three reports of adverse health-related events involving these specific tablets.
- In particular the Dutch Poisons Information Centre reported a considerable amount of poisonings involving several new benzodiazepines including etizolam, clonazolam and flualprazolam.
- For the first time ever, a consumer submitted metonitazene for analysis at DIMS. This substance belongs to the group of synthetic opioids. No adverse health-related events involving this substance were reported. Interestingly, the Dutch Poisons Information Centre did report a number of poisonings involving O-desmethyltramadol (O-DSMT). Also DIMS, reported this substance for the first time.

Synthetic cannabinoids

Synthetic cannabinoids are substances that have a similar effect as THC. In 2021, nine different synthetic cannabinoids were reported to the Reporting Desk for New Drugs by the participating laboratories; five of these synthetic cannabinoids were detected on the illicit drug market in the Netherlands for the first time.

Developments in 2021

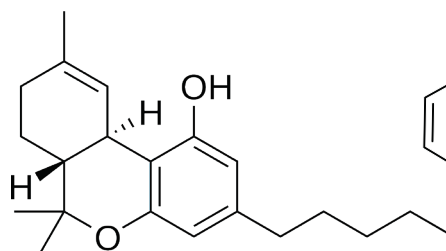
- Once again, in 2021 cannabis adulterated with synthetic cannabinoids was sold on the illicit drug market in Europe. In the Netherlands, both MDMB-4en-PINACA, but also ADB-BUTINACA were detected.
- In 2021, China used generic legislation to control a broad range of synthetic cannabinoids. Shortly after this, however, new variants of synthetic cannabinoids started to appear on the international drug market. These new variants, also known as OXIZID's, do not meet the conditions included in this generic definition. The Customs Laboratory of the Netherlands detected two of these variants.
- The Customs Laboratory also detected a relatively large batch of powder (2 kg) containing Cumyl-NBMICA.
- The high amount of seized material indicate the trade of synthetic cannabinoids in the Netherlands. Consumption of synthetic cannabinoids appears to be low, based on the low number of drug samples submitted at drug checking services and the low number of adverse health-related events.



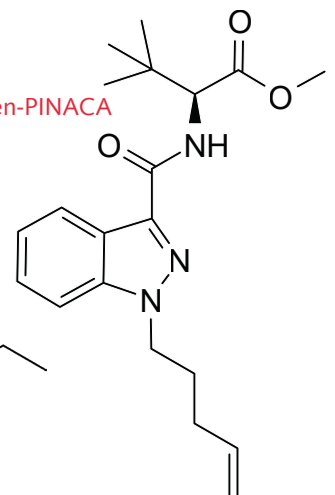
Proportion of synthetic cannabinoids compared to all substance groups reported in 2021

Structural formulas

THC



Example:
MDMB-4en-PINACA



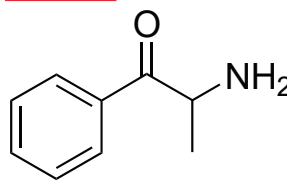
Cathinones

Cathinones are chemically related to cathinone, which is one of the active substances in the plant qat. In 2021, 21 different cathinones were reported to the Reporting Desk for New Drugs by the participating laboratories; one of these cathinones was detected on the illicit drug market in the Netherlands for the first time.

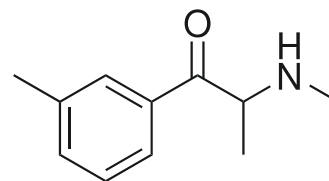


Structural formulas

Cathinone



Example: 3-MMC

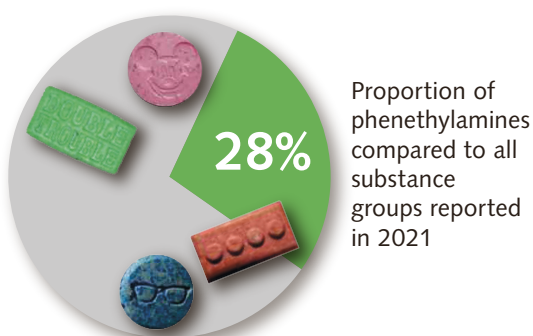


Developments in 2021

- In the spring of 2021, the Coordination point for Assessment and Monitoring new drugs executed a national risk assessment for 3-MMC. On October 28 2021, 3-MMC was scheduled as a list II substance under the Opium Act.
- The Customs Laboratory of the Netherlands detected four very large batches of 3-CMC (2547.1 kg), 3-MMC (602.5 kg), MDPHP (148 kg), and N-ethylhexedrone (100 kg).
- In addition to a number of large seizures of 3-MMC powder (over 7 kg), the National Forensic Institute reported a number of substantial seizures of a little over five thousand 4-MMC tablets (5752 pieces) and powder (32.6 kg). Furthermore, the National Forensic Institute detected large quantities of 4-CMC (2.7 kg).
- Regarding cathinones, DIMS received mainly 3-MMC and 4-MMC from consumers. Similar to 2020, about half of the samples that were purchased by consumers as 4-MMC were found to only contain 3-MMC in 2021.
- Given the high amounts of seized material, there is production and trade of cathinones in the Netherlands. The consumption of 3-MMC still appears to be on the increase based on the number of drug samples submitted by consumers. The Dutch Poisons Information Centre also registered a considerable increase in the number of poisonings with 3-MMC; 162 poisonings were reported in 2021, compared to 64 reported in 2020. Also, the Monitor Drug-related Incidents received an increased number of reports of adverse health-related events involving either 3-MMC or 4-MMC compared to the year before (95 in 2021 versus 28 in 2020).

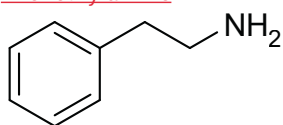
Phenethylamines

Well-known phenethylamines are mescaline, (meth)-amphetamine and MDMA. Many other phenethylamines mimic the effects of these drugs. In 2021, 27 different phenethylamines were reported to the Reporting Desk for New Drugs by the participating laboratories; two of these phenethylamines were detected on the illicit drug market in the Netherlands for the first time.

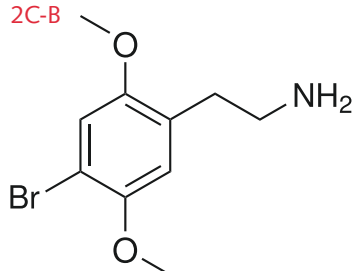


Structural formulas

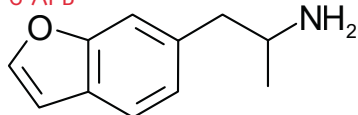
Phenethylamine



Example: 2C-B



Example: 6-APB



Developments in 2021

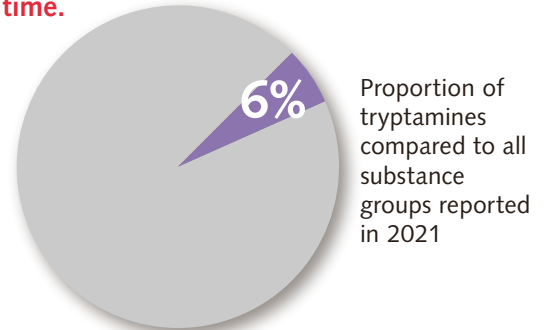
- 2C-B has been frequently reported by both the Netherlands Forensic Institute and DIMS. The Dutch Poisons Information Centre also registered a total of 27 poisonings related to the reported use of 2C-B. In contrast to previous years, the substance 2-bromo-4,5-dimethoxyphenethylamine (also known as 6Br-DMPEA) has only been reported a few times by one of the participating laboratories.
- Both the Netherlands Forensic Institute and DIMS detected a low dose of PMMA in a small subset of tablets sold as ecstasy. The Monitor Drug-related Incidents received one report of an adverse health-related event involving PMMA.
- In addition to 2C-B, DIMS received mainly 5/6-APB (Benzofury) from consumers. The Dutch Poisons Information Centre registered a total of nine poisonings involving Benzofury.
- In Spring 2021, DIMS issued a warning for tablets missold as 2C-B containing a very high dose of DOC instead. The Netherlands Forensic Institute was able to determine the dose of these tablets. The Monitor Drug-related Incidents received three reports of adverse health-related events involving these specific tablets.
- Given the high amounts of seized material, there is trade of phenethylamines in the Netherlands. Consumption of phenethylamines, and in particular 2C-B appears to be relatively high, based on the number of drug sample submitted by consumers and the number of adverse health-related events.

Tryptamines

Developments in 2021

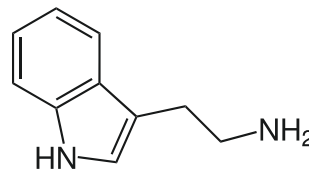
- In addition to DMT, which consumers had submitted to DIMS in 2021 most frequently, five other tryptamines were detected in consumer samples; 5-MeO-DMT and 4-HO-MET were the most commonly detected substances in consumer samples.
- Adverse health-related events after consumption of tryptamines is very rare. However, in 2021, the Dutch Poisons Information Centre registered seven poisonings with 4-HO-MET.
- Given the low amounts of seized tryptamines (apart from DMT), there is limited production and trade of tryptamines in the Netherlands. Also consumption of tryptamines is very low.

Tryptamines are compounds that can either be synthesized by humans, plants and fungi. Tryptamines, like psilocybine, have a hallucinogenic effect after consumption. In 2021, six different tryptamines were reported to the Reporting Desk for New Drugs; none of these tryptamines were detected on the illicit drug market in the Netherlands for the first time.

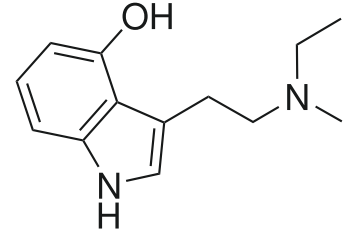


Structural formulas

Tryptamine

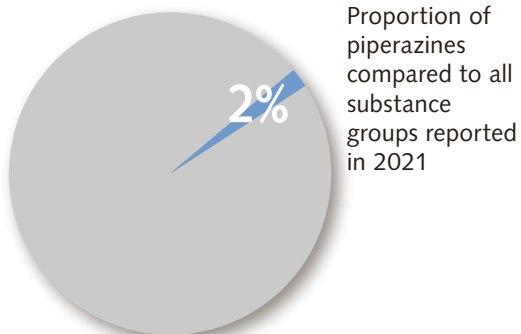


Example: 4-HO-MET



Piperazines

Piperazines are substances that contain a so-called piperazine ring and usually have a stimulating effect. In 2021, two piperazines were reported to the Reporting Desk for New Drugs; this was not the first time that these substances had been detected on the illicit drug market in the Netherlands.

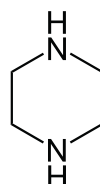


Developments in 2021

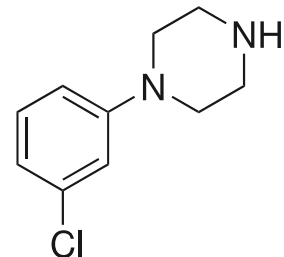
- The Customs Laboratory of the Netherlands detected one batch of powder which contained pFPP (2 kg).
- Both the Netherlands Forensic Institute and DIMS detected mCPP in a number of tablets that were either seized or submitted by consumers.
- Other piperazines are rarely detected by the participating laboratories. In the last few years, no adverse health-related events relating to the consumption of piperazines have been reported.

Structural formulas

Piperazine

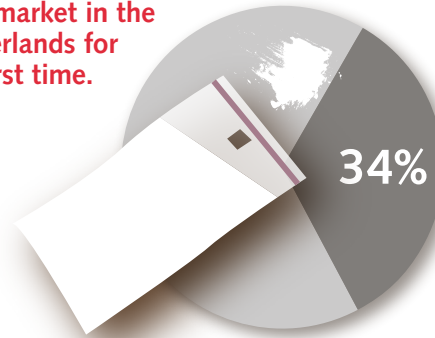


Example: mCPP



Other substances

This category covers all other new psychoactive substances including synthetic opioids (such as fentanyl derivatives), new benzodiazepines, arylcyclohexylamines, and GHB/GBL. In 2021, 33 different other substances were reported to the Reporting Desk for New Drugs; seven of these substances were detected on the illicit drug market in the Netherlands for the first time.



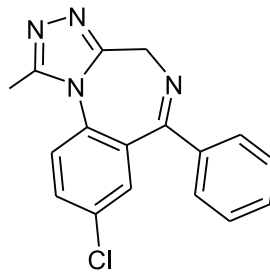
Proportion of the group 'Other substances' compared to all substance groups reported in 2021

Developments in 2021

- In particular the substances GHB and ketamine were in 2021 frequently detected by the participating laboratories.
- Similar to 2020, the Customs Laboratory of the Netherlands detected a large batch of 2-Fluorodeschloroketamine powder (2-FDCK) (68 kg).
- The Netherlands Forensic Institute detected large quantities of new benzodiazepines. In most cases it involved etizolam. The Netherlands Forensic Institute seized a total number of 23123 tablets and 3.5 litres of liquid containing etizolam. In addition, a large batch of over 11,000 tablets containing flualprazolam was seized.
- At DIMS, a consumer submitted metonitazene for analysis. Also, O-desmethyltramadol (O-DSMT) was submitted by consumers to DIMS for the first time. DIMS analysed a total number of five tablets and two powders containing O-DSMT. The Dutch Poisons Information Centre reported ten poisonings involving this substance.
- The Dutch Poisons Information Centre reported a considerable amount of poisonings involving several new benzodiazepines including clonazolam, etizolam, and flualprazolam. A total number of 167 poisonings were reported in 2021, compared to 65 reported in 2020.
- Production, trade and consumption of other new psychoactive substances is limited apart from GHB and ketamine. The recent developments concerning adverse health-related events involving new benzodiazepines are of concern however.

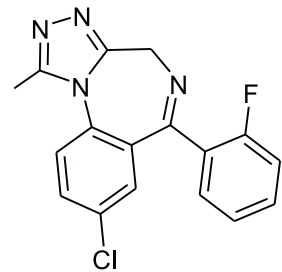
Structural formulas

Alprazolam

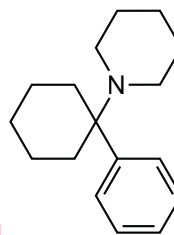


Example:

Flualprazolam

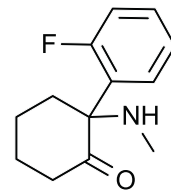


Arylcyclohexylamine



Example:

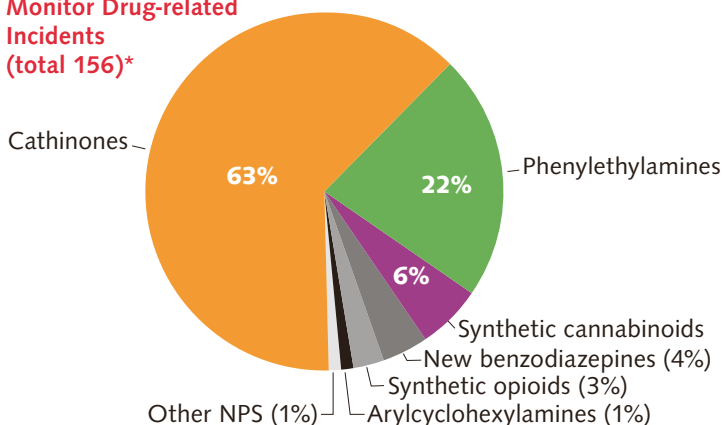
2-Fluorodeschloroketamine



Adverse health-related events in 2021

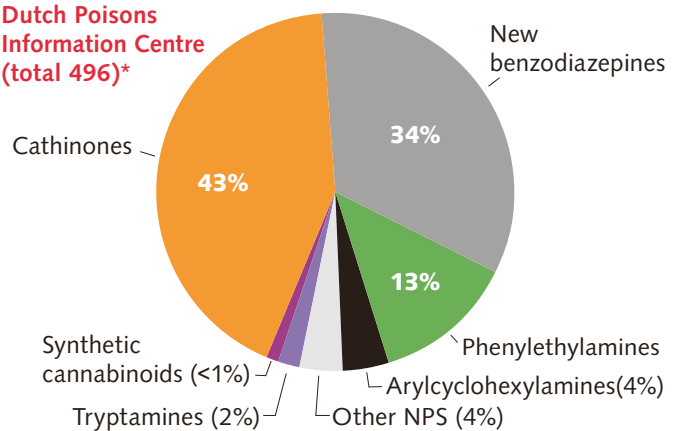
The Monitor Drug-related Incidents collects data on drug-related adverse health-related events reported by hospital emergency departments, ambulance services, forensic doctors, and organizations that staff first aid posts at events. The Dutch Poisons Information Centre informs doctors, pharmacists, and other professional care providers about the possible negative health effects and treatment options in case of a poisoning.

Monitor Drug-related Incidents (total 156)*



* Excluding GHB/GBL (778) and ketamine (115)

Dutch Poisons Information Centre (total 496)*



* Excluding GHB/GBL (83) and ketamine (76)

The pie charts illustrate the distribution of adverse health-related events reported to the Monitor Drug-related Incidents per substance group in which new psychoactive substances have or are suspected to have played a role, as well as the poisonings registered by the Dutch Poisons Information Centre in 2021.

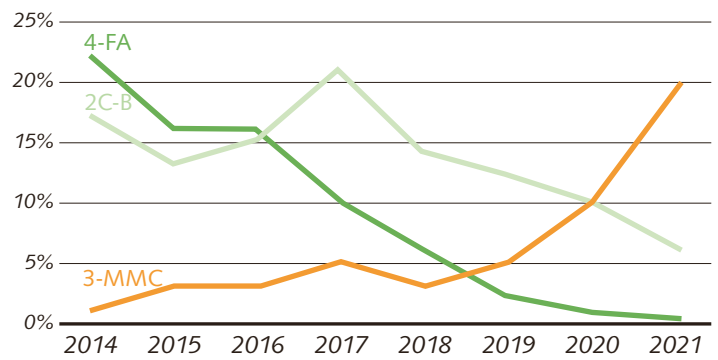
Analysis of online discussions of new psychoactive substances

By collecting data from the most important discussion boards on drugs in the Netherlands, the Reporting Desk for New Drugs is able to report on the interest in and reported consumption of specific new psychoactive substances in the Netherlands.

Developments in 2021

- A considerable amount of discussions on the analysed discussion boards were related to 3-MMC. In 2021, there were 159 new postings about 3-MMC on these boards, compared to 67 new postings about 3-MMC in 2020. Most consumers discussed the (upcoming) scheduling of 3-MMC.
- Possible replacements for 3-MMC were hardly discussed on the analysed discussion boards. Only eight new topics on 3-MMC were started in 2021.
- Most of the new psychoactive substances that have been submitted by consumers to DIMS or which have been registered by the Dutch Poisons Information Centre in 2021 were also discussed on these online discussion boards. Most other discussions on new psychoactive substances in 2021 concerned 1P-LSD, 5/6-APB, etizolam and 4-HO-MET.

Trends in new topics: proportion of three selected substances compared to the total number of new topics about new psychoactive substances



Ranking by the number of new topics about new psychoactive substances that were initiated per year.

Rank	2018	2019	2020	2021
1	Ketamine	2C-B	GHB	3-MMC
2	GHB	Ketamine	NPS in general	NPS in general
3	2C-B	NPS in general	2C-B	GHB
4	6-APB	GHB	3-MMC	Ketamine
5	DMT	3-MMC	Ketamine	2C-B
6	4-FA	DMT	4-MMC	1P-LSD
7	Kratom	5/6-APB	DMT	5/6-APB
8	NPS in general	1P-LSD	1P-LSD	Etizolam
9	1P-LSD	4-FMA	2-FDCK	DMT
10	3-MMC	2C-B-FLY	5/6-APB	Phenibut
11	Etizolam	2-FDCK	Etizolam	4-FMA
12	4-FMA	4-FA	3-MeO-PCP	4-HO-MET

References:

1. The Drugs Information and Monitoring System. Factsheet on drug checking in the Netherlands. 2019. Trimbos institute. AF1677. TrimbosAF1677. Available at URL: <https://www.trimbos.nl/aanbod/webwinkel/product/af1677-the-drugs-information-and-monitoring-system-dims>
2. <https://www.rivm.nl/publicaties/basisnotitie-coördinatiepunt-assessment-en-monitoring-nieuwe-drugs>
3. https://www.emcdda.europa.eu/topics/nps_en

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