

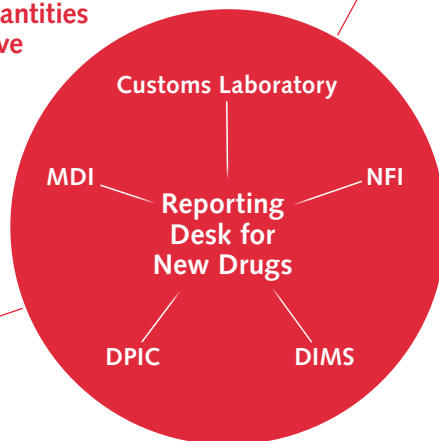
Annual Report 2023

Reporting Desk for New Drugs

What is the Reporting Desk for New Drugs?

The Reporting Desk for New Drugs is a 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 were recently detected 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.

Commissioned by the Ministry of Health, Welfare and Sports of the Netherlands



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 (NFI) 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 NPS?

The UNODC* and EUDA use a broad definition for new psychoactive substances: "all substances of abuse, either in 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".**

This report focuses on substances that have been produced and introduced to the drug market for their psychoactive properties in the last few decades or have been re-introduced on the illicit drug market after several decades of absence.

A few substances, such as 2C-B, GHB/GBL, DMT, and ketamine have also been included in this report, because they are monitored by the EUDA 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
- Indole alkaloids (Tryptamines)
- Arylcyclohexylamines
- Synthetic opioids
- New benzodiazepines
- Other new psychoactive substances

* United Nations Office on Drugs and Crime and European Union Drugs Agency.

** UNDOC (2024) The Challenge of new psychoactive substances - a technical update. Vienna: United Nations.

Highlights 2023

- In the Netherlands, the trade in hexahydrocannabinol (HHC) seems to be on the rise. Participating laboratories detected this THC-like substance in edibles, liquids, and vapes.
- There is still a high demand for 3-MMC. However, substances sold as 3-MMC often contain other cathinones such as 3-CMC and 2-MMC. Several tons of these latter substances are imported from India. The number of adverse health-related events related to substances sold as 3-MMC is higher than ever, but analytical confirmation is lacking.
- Synthetic opioids are rarely detected and reported in the Netherlands. However, vigilance is required.
- Once again, in 2023, several new benzodiazepines were detected, mainly by the NFI and DIMS. Bromazolam is frequently mentioned by participating laboratories and is also the most frequently reported substance by the DPIC.

Newly reported substances in 2023, per substance group, according to laboratory:

Substance group	Substance	DIMS	NFI	Customs
Synthetic cannabinoids	CH-PIATA		•	
	HHC	•	•	•
	MDMB-INACA		•	•
Cathinones	iso-pentylone	•	•	
Phenylethylamines	DOPR	•		
	methallylescaline			
Indole alkaloids	1V-LSD	•	•	
Synth. opioids	protonitazene	•		
New benzodiazepines	desalkylgidazepam	•	•	
	deschloroetizolam		•	

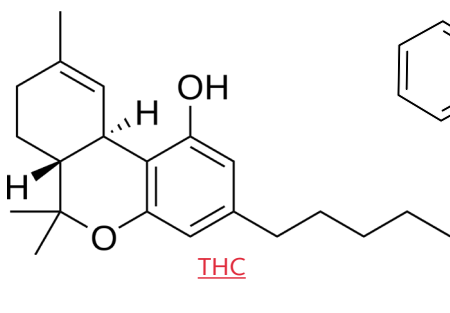
Synthetic cannabinoids

Synthetic cannabinoids are substances that have a similar effect as THC. In 2023, 8 different synthetic cannabinoids were reported to the Reporting Desk for New Drugs by the participating laboratories; three of these synthetic cannabinoids were detected on the illicit drug market in the Netherlands for the first time.

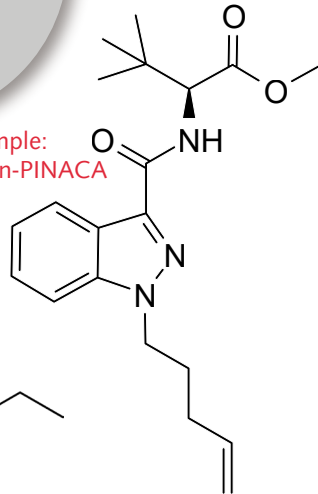


Proportion of synthetic cannabinoids compared to all substance groups reported in 2023

Structural formulas



Example: MDMB-4en-PINACA



Developments in 2023

- Until 3-CMC was placed on List I of the Opium Act (September 12, 2023), the Customs Laboratory saw large quantities (17,058 kg) of this substance being imported from India. Also, 2-MMC (9,702 kg), α -PiHP (1,353 kg), N-ethylpentadron (NEP) (3,890 kg), and MDPHP (201 kg) were imported from India in large quantities.
- The Netherlands Forensic Institute mainly reported 2-MMC (1,133 kg), 3-CMC (495 kg), α -PiHP (84 kg), 3-MMC (24 kg), and 4-MMC (16 kg).
- At DIMS, 3-CMC (394x), 3-MMC (237x), 2-MMC (201x), and 4-MMC (100x) were primarily detected. These substances were mostly found in samples sold as 3-MMC. In 2023, only 30% of the samples purchased as 3-MMC actually contained 3-MMC. Besides the above mentioned substances, dipentylone was also frequently found (72x).
- The Dutch Poisons Information Centre registered a considerable number of poisonings with cathinones (301x). The Monitor Drug-related Incidents also received a large number of reports of adverse health-related events involving various cathinones (763x). In most of the cases it was reported as 3-MMC or 4-MMC (238 DPIIC and 745 MDI), but the Dutch Poisons Information Centre also registered poisonings involving various pyrrolidine-containing cathinones like α -PVP, α -PHP, and α -PiHP (15 in total).
- Most of the discussions on the analysed discussion boards in 2023 were related to 3-MMC (19%). There were more topics about this substance than ever before. Additionally, there was some discussion about 3-CMC (6%), 4-MMC (4%), and 2-MMC (3%).
- The use of cathinones sold as 3-MMC or "Miauw" in the Netherlands seems higher than ever. Still-legal cathinones, as replacements for 3-MMC, were imported and traded in large quantities in 2023, but the demand for them seems limited. The use of pyrrolidine-containing cathinones, often referred to as "Flakka," seems limited to specific groups in certain regions of the country.

Developments in 2023

- All participating laboratories reported the semi-synthetic cannabinoid hexahydrocannabinol (HHC) in various forms in 2023.
- The Customs Laboratory reported HHC in liquid form (56 kg). Additionally, they analyzed a large batch (15 kg) of plant material with ADB-BUTINACA and MDMB-4en-PINACA destined for export.
- The Netherlands Forensic Institute analyzed HHC in both liquids, hashish, vapes, and so-called edibles, including gummies. They also reported a large batch of MDMB-INACA in powder form (120 kg).
- DIMS detected two other synthetic cannabinoids (4F-MDMB-BINACA and MDMB-4en-PINACA), alongside an HHC gummy and HHC liquid. They also analyzed a vape containing ADB-BUTINACA and ADB-4en-PINACA.
- Concerning HHC, 15 poisonings were registered by the Dutch Poisons Information Centre in 2023 and four adverse health-related events were reported to the Monitor Drug-related Incidents.
- Hardly any discussions on the analysed discussion boards were related to synthetic cannabinoids.
- In 2023, the trade and use of synthetic cannabinoids appeared to be limited to very specific target groups.

Cathinones

Cathinones are chemically related to cathinone, which is one of the active substances in the plant qat. In 2023, 30 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.

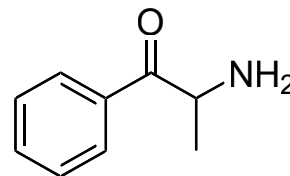


Qat

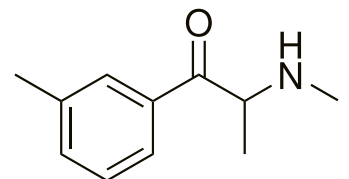
29%

Proportion of cathinones compared to all substance groups reported in 2023

Structural formulas



Cathinone



Example: 3-MMC

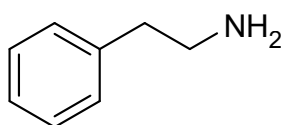
Phenethylamines

Well-known phenethylamines are mescaline, (meth)-amphetamine and MDMA. Many other phenethylamines mimic the effects of these drugs. In 2023, 33 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.

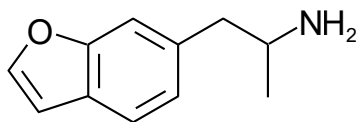


Proportion of phenethylamines compared to all substance groups reported in 2023

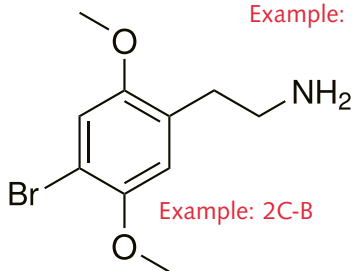
Structural formulas



Phenethylamine



Example: 6-APB



Example: 2C-B

Developments in 2023

- The Customs Laboratory only reported 6-APB (25 kg) in 2023.
- The Netherlands Forensic institute reported a significant number of seizures of 2C-B tablets (3,955x). Additionally, blotter sheets with DOC (2,181 blotters) and a combination of 25B-NBOMe and 25C-NBOMe (104 blotters) were reported.
- In addition to 2C-B, DIMS, also detected 6-APB/Benzofury several times (51x).
- The Dutch Poisons Information Centre registered a total of 58 poisonings with phenylethylamines. Also, the Monitor Drug-related Incidents received a significant number of reports of adverse health-related events involving phenylethylamines (97). Most of the information requests concerning phenylethylamines at the DPIC involved 2C-B (23x).
- Most of the discussions on the analysed discussion boards in 2022 were related to 6 APB (Benzofury) (6%), but in addition topics were started on 2C-B (2%).
- Apart from 2C-B and 6-APB, phenylethylamines played a limited role in the NPS market in the Netherlands in 2023.

Indole alkaloids (Tryptamines)

The group of indole alkaloids includes psychedelics of which the structure resembles serotonin and of which the chemical structure contains a tryptamine-group (2-(3-indolyl)ethylamine). In 2023, 9 different phenethylamines were reported to the Reporting Desk for New Drugs by the participating laboratories; one of these indole alkaloids was detected on the illicit drug market in the Netherlands for the first time: 1V-LSD.

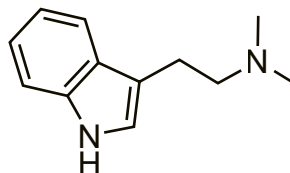


Proportion of indole alkaloids compared to all substance groups reported in 2023

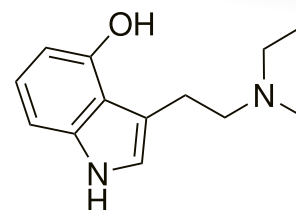
Developments in 2023

- The Customs Laboratory reported several batches (22x) of DMT in paste form in 2023.
- The Netherlands Forensic Institute reported a total of 38 blotters with 1V-LSD. This substance had not previously been reported to the Reporting Desk for New Drugs. As every year, several batches of DMT in various forms were also reported.
- In addition to DMT, 4-HO-MET, 4-HO-MiPT, 5-MeO-N,N-MiPT, 5-MeO-DMT, and N-methyltryptamine were found at DIMS.
- Adverse health-related events after consumption of indole alkaloids is usually very rare. However, in 2023, the Dutch Poisons Information Centre registered seven poisonings with indole alkaloids. The Monitor Drug-related Incidents received three reports of adverse health-related events involving indole alkaloids.
- Most of the discussions on the analysed discussion boards in 2023 were related to 1P-LSD (3%), but in addition topics were started on 4-HO-MET (2%), and DMT (1%).
- Although indole alkaloids are regularly discussed on discussion boards, their use seems limited to select groups. The trade, with the exception of DMT, is also limited.

Structural formulas



Example: DMT

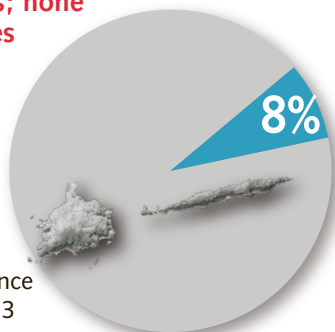


Example: 4-HO-MET

Arylcyclohexylamines

Arylcyclohexylamines are substances of which the chemical structure contains a cyclohexylamine with an aryl-group. In 2023, eight different arylcyclohexylamines were reported to the Reporting Desk for New Drugs by the participating laboratories; none of these arylcyclohexylamines were detected on the illicit drug market in the Netherlands for the first time.

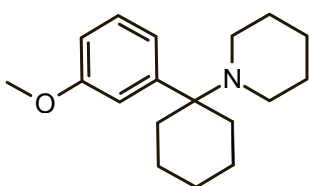
Proportion of arylcyclohexylamines compared to all substance groups reported in 2023



Structural formulas



Example:
2-Fluorodeschloroketamine



Example: 3-MeO-PCP

Developments in 2023

- The Customs Laboratory only reported ketamine and no other arylcyclohexylamines.
- The Netherlands Forensic Institute also reported 2-Fluorodeschloroketamine (powder; 2.9 kg) in quantities exceeding one kilogram.
- At DIMS, ketamine was found 657 times in powder form. DIMS also detected deschloro-ketamine (11x), 2-Fluorodeschloroketamine (8x), deschloro-N-ethylketamine (O-PCE) (2x), and MXPr (3x).
- The Dutch Poisons Information Centre registered a total of 121 poisonings with arylcyclohexylamines. Also, the Monitor Drug-related Incidents received a large number of reports of adverse health-related events involving arylcyclohexylamines (590). In most of the cases it concerned ketamine, but the Dutch Poisons Information Centre also registered 10 intoxications related to O-PCE.
- Most of the discussions on the analysed discussion boards in 2023 were related to ketamine (6%), but in addition topics were started on 2-Fluorodeschloroketamine (2%).
- In the Netherlands, the trade and use seem primarily focused on ketamine, with other arylcyclohexylamines rarely seen the Reporting Desk for New Drugs.

Synthetic opioids

Synthetic opioids are substances with strong analgesic properties that have recently emerged on the illicit drug market. Various subcategories have been described such as fentanyl analogues and, more recently, benzimidazole opioids (nitazenes). In 2023, two different synthetic opioids were reported to the Reporting Desk for New Drugs by the participating laboratories; one of these synthetic opioids was detected on the illicit drug market in the Netherlands for the first time.

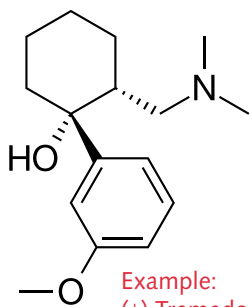
Proportion of synthetic opioids compared to all substance groups reported in 2023



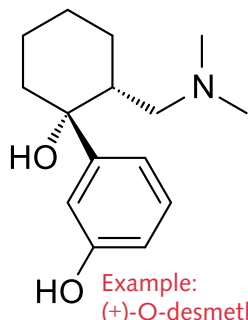
Developments in 2023

- A total of 2 different synthetic opioids were reported by the participating laboratories. The Netherlands Forensic Institute detected only O-desmethyltramadol (O-DSMT) in a very small quantity (<1 gram), while DIMS analyzed a powder containing protonitazene, which was purchased as such. This substance had not been previously found in the Netherlands.
- The Dutch Poisons Information Centre registered a total of (7) poisonings with synthetic opioids. The Monitor Drug-related Incidents received a total number of (16) reports of adverse health-related events involving synthetic opioids. In both cases it mainly concerned O-desmethyltramadol.
- Synthetic opioids were rarely discussed on the analyzed discussion boards.
- It appears there is little trade or use of synthetic opioids in the Netherlands, but signals of trade and adverse health-related events from other European countries call for vigilance.

Structural formulas



Example:
(+)-Tramadol

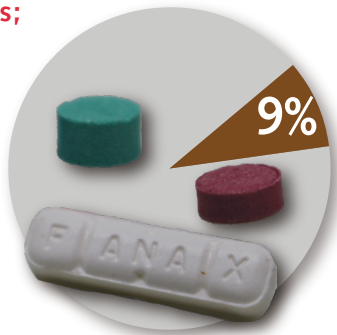


Example:
(+)-O-desmethyltramadol

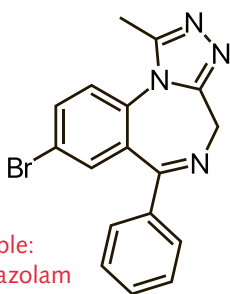
New benzodiazepines

The term new benzodiazepines refers to substances that are being sold as “legal” replacements of prescription benzodiazepines such as diazepam, oxazepam and alprazolam. In 2023, nine different new benzodiazepines were reported to the Reporting Desk for New Drugs by the participating laboratories; two of these new benzodiazepines were detected on the illicit drug market in the Netherlands for the first time.

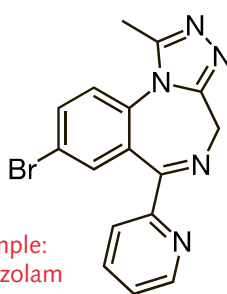
Proportion of new benzodiazepines compared to all substance groups reported in 2023



Structural formulas



Example:
Bromazolam



Example:
Pyrazolam

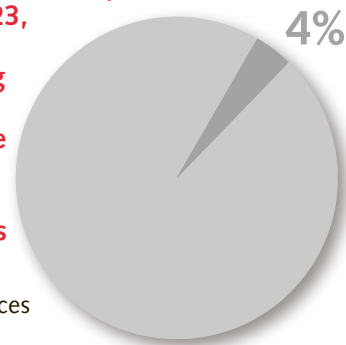
Developments in 2023

- The Customs Laboratory reported only a batch of diclazepam being imported in 2023.
- At the Netherlands Forensic Institute bromazolam was reported in various forms (4.5 liters dissolved in liquid, 1.2 kg of powder, 132 tablets, and 28 blotters), along with flualprazolam (3,711 tablets) in larger quantities. The Netherlands Forensic Institute detected eight different new benzodiazepines in total.
- At DIMS, bromazolam was submitted four times in tablet form and six times as a powder. In total, DIMS detected five different new benzodiazepines.
- In 2023, the Dutch Poisons Information Centre registered 226 poisonings with new benzodiazepines. The Monitor Drug-related Incidents received 39 reports of adverse health-related events involving new benzodiazepines. In total, 16 different new benzodiazepines were registered. At the DPIC, most information requests involved bromazolam (88x) and pyrazolam (34x).
- Most of the discussions on the analysed discussion boards in 2023 were related to bromazolam(2%), followed by benzodiazepines in general (1%).
- It seems that various types of new benzodiazepines are being used in the Netherlands, but the motives for use and extent are not well understood. However, there have been several reports of adverse health-related events involving various new benzodiazepines.

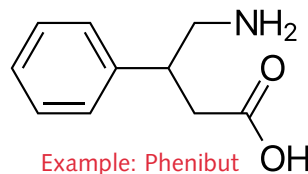
Other substances

This category covers all other new psychoactive substances including piperazines, cocaine-like substances (pyrrolidines) and other substances such as GHB/GBL that are being monitored by the Reporting Desk for New Drugs under the framework of the European Joint Action on new synthetic drugs. In 2023, four different other substances were reported to the Reporting Desk for New Drugs by the participating laboratories; none of these other substances were detected on the illicit drug market in the Netherlands for the first time.

Proportion of other substances compared to all substance groups reported in 2023



Structural formula



Example: Phenibut

Analysis of online discussions of NPS in 2023

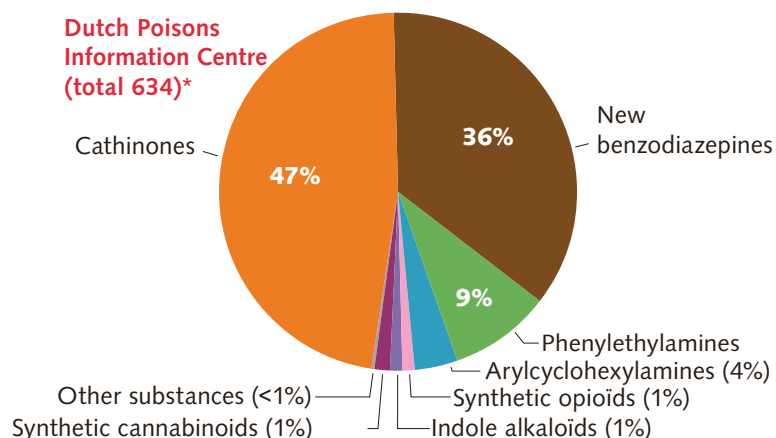
By collecting data on the number of new topics, number of posts and views related to new psychoactive substances started on the most important discussion boards on drugs in the Netherlands, the Reporting Desk for New Drugs is able to report on the interest of new psychoactive substances in the Netherlands.

Top 20 ranking by the number of new topics about new psychoactive substances

Substance	%	Substance	%
1. 3-MMC	19	11. 2C-B	2
2. NPS unspecified	8	12. 4-FMA	2
3. Ketamine	6	13. 2F-DCK	2
4. 6-APB	6	14. 2-FMA	2
5. 3-CMC	6	15. 4-HO-MET	2
6. GHB	5	16. Bromazolam	2
7. 1P-LSD	4	17. Benzo unspecified	1
8. 4-MMC	4	18. α-PiHP	1
9. 2-MMC	3	19. DMT	1
10. Phenibut	3	20. 3-FA	1

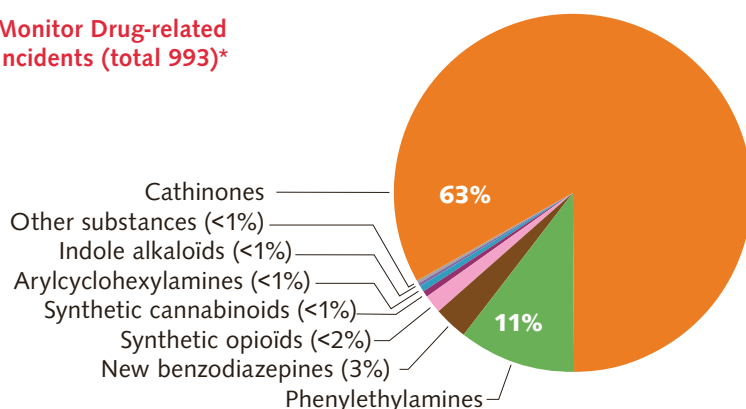
Adverse health-related events in 2023

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. 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 are suspected to have played a role, as well as the poisonings registered by the Dutch Poisons Information Centre in 2023. Suspected, since toxicological confirmation is lacking and because in several cases it concerned the intake of multiple drugs per occasion.



* Excluding GHB/GBL (62), ketamine (97) and HHC (15)

Monitor Drug-related Incidents (total 993)*



* Excluding GHB/GBL (993), ketamine (586) and HHC (4)

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-coordinatiepunt-assessment-en-monitoring-nieuwe-drugs>