Information Bulletin

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INTER-AMERICAN DRUG ABUSE CONTROL COMMISSION (CICAD)

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Table of Contents

1. CICAD is supporting the expansion of Early Warning	
Systems in the region	5
Introduction	5
Evolution of Early Warning Systems	7

2. Summary of information made public by official agencies	
of OAS member states, by international organizations,	
or directly reported to SATA between the fourth quarter	
of 2019 and the first quarter of 2022	7

Summary of major emerging drugs reported to sata	between
the fourth quarter 2019 and first quarter 2022	11
Synthetic opioids	11
Amphetamine-type stimulants (ATS)	12
Cannabis	13
Synthetic cannabinoids	13
Synthetic cathinones	14
Phenethylamines	15
Piperazines	16
Plant-based substances	16
Phencyclidine-type substances	17
Tryptamines	17
Other substances	



CICAD is supporting the expansion of Early Warning Systems in the region

Introduction

In 2019, the Inter-American Drug Abuse Control Commission (CICAD, by its Spanish-language acronym), through its Inter-American Observatory on Drugs (OID, by its Spanish-language acronym) established the Early Warning System of the Americas (SATA, by its Spanish-language acronym) in response to the appearance of opioids, new psychoactive substances (NPS), and other emerging drugs in Latin America and the Caribbean. Due to the potential impact of emerging threats on public health and security, the SATA connects existing early warning systems in member states, harnesses their collective information, and shares that information across OAS member states.¹

The Hemispheric Plan of Action on Drugs (HDS) 2021-2025 of the Organization of American States emphasizes the importance of national drug information networks (DINs) and early warning systems (EWS). In particular, the HDS highlights the respective and complementary roles of DINs, which monitor the drug problem over the long-term, and EWS, which quickly gather information in the short-term to support rapid responses to emerging threats. The HDS also highlights the importance of member states' sharing of data and information with SATA, which gathers national alerts and other information, and disseminates them to member states as quickly as possible.²



^{1.} For more information about SATA, see the CICAD website: (http://www.cicad.oas.org/Main/Template.asp?File=/oid/sata/default_eng.asp). 2. Organization of American States, Inter-American Drug Abuse Control Commission. Hemispheric Plan of Action on Drugs 2021-2025. (Approved by CICAD at its 68th regular session: Bogota, Colombia, December 2020).

 $http://www.cicad.oas.org/Main/AboutCICAD/BasicDocuments/Plan_de_Accion_Hemisferico_sobre_Drogas_2021-2025_ESP.pdf$

SATA, managed by CICAD's Inter-American Observatory on Drugs (OID, by its Spanishlanguage acronym), has received an increasing number of alerts from early warning systems in OAS member states since its launch in 2019.³ In addition, SATA produces summaries of data and information based on information gathered from national EWS in member states. The information gathered from the SATA, coupled with additional data, shows that, in the past decade, synthetic drugs and NPS have spread geographically across Latin America and the Caribbean (LAC). While the prevalence of these drugs remains low relative to traditional drugs like cocaine and marijuana, their increased presence implies that member states should give them greater attention in national monitoring systems.

OAS member states have identified EWS as a best practice for gathering data and developing rapid responses to new and emerging threats. With the support of the governments of Canada and the United States, the OID has initiated a program to build and strengthen EWS in OAS member states. As national EWS grow and develop, their information will, in turn, reinforce the SATA, providing faster and more reliable data on emerging drugs in the Hemisphere, with the possibility of real-time information sharing and regional and global alerts.



^{3.} Alerts are posted on the SATA section, of the CICAD website: http://www.cicad.oas.org/Main/Template.asp?File=/oid/sata/default_eng.asp

Evolution of Early Warning Systems

In 2013, as synthetic drugs and NPS began appearing in LAC, the United Nations Commission on Narcotic Drugs recommended that countries create or strengthen national EWS. Since then, EWS have been recognized as valid and effective options for confronting these new challenges.⁴

The first EWS in LAC was established in Colombia in 2013, followed by Uruguay in 2014 and Argentina in 2019. Argentina published a series of bulletins in 2019 with alerts on drugs previously unseen in that country. With the support of CICAD and the United Nations Office on Drugs and Crime (UNODC) since 2019, El Salvador has also been advancing in implementing its EWS on emerging drugs. In 2019, the Integrated Threat Assessment Centre of Trinidad and Tobago established the Early Warning System on New Psychoactive Substances (NPS) and Emerging Drugs. Chile established an Interagency Working Group on New Psychoactive Substances in 2014 and established a national EWS at the end of 2021. In August 2021, Brazil consolidated its EWS which published its first report in January 2022.

Similarly, with CICAD's technical support, other countries, such as the Dominican Republic, Guatemala, Mexico, and Paraguay, are planning to develop EWS. CICAD has been holding national and regional virtual training seminars in 2022 on how to develop an EWS for these and other countries in the planning phase.

In 2019, with support from the Government of Canada and the United States, the OID began an initiative to train LAC member states that have not yet planned to create an EWS. This initiative helps member states connect and share their EWS information through the SATA. CICAD continues to work closely with these countries as they develop their EWS.

While the goal is to develop EWS across member states, it is important to note that each system is unique and responds to the particular needs of each country. As a result, the EWSs may operate differently, and the types of alerts vary from country to country. For example, Brazil issued (in January and March 2022) two public alert reports via their EWS website, in Portuguese, English, and Spanish. Uruguay's EWS-Drugs continuously issues alerts through its network.

^{4.} Resolution 56/4 (15 March 2013), entitled "Improving International Cooperation in the Identification and Notification of New Psychoactive Substances," the Commission on Narcotic Drugs recognized the importance of sharing NPS-related information globally. It urged UNODC to continue facilitating the timely and comprehensive exchange of information on new psychoactive substances, including analytical methodologies, reference documents, mass spectra, and trend analysis data. [See https://www.incb.org/documents/Global_Projects_OPIOIDS/Resolutions/CND-Res-56-4.pdf.]



The synthetic opioid epidemic that has affected Canada and the United States for over a decade, and the appearance of clandestinely manufactured fentanyl analogs, are two challenges that call for even greater focus on strengthening EWS. EWS are intended to generate rapid responses to prevent health risks and overdose-related deaths among the general population.

In February 2022, in Buenos Aires, Argentina, a series of overdose deaths attributed to cocaine adulterated with opioids generated a public health emergency.⁵ Reports from the United States of intoxications attributable to drugs adulterated with synthetic opioids are increasingly frequent, as are the deaths associated with this phenomenon.⁶

The first few months of the COVID-19 pandemic in 2020 resulted in fewer traditional drugs, such as cocaine and heroin, circulating in the markets. For example, cocaine-producing countries found it difficult to move their production outside their borders. Brazil and the United States reported a shortage of cocaine on the streets or a sharp increase in prices. This shortage also decreased drug purity on the illicit market.

Drug shortages and rising prices have raised concerns about potential increases in synthetic opioids and other synthetic drugs, drugs blended or adulterated with other substances or other harmful substances in combination with controlled prescription drugs.⁷

This had an impact on the already alarming numbers of drug-related deaths in Canada and the United States. In the United States alone, overdose-related deaths exceeded 100,000 in 2021, and more than 75,000 were opioid overdoses.⁸

The following is a summary of the main alerts issued by the region's EWS between the last quarter of 2019 and the first quarter of 2022.

https://www.justice.gov/opioidawareness/opioid-facts



^{5.} Ministry of Health of Argentina. Recommendations of the Ministry of Health in Cases of Intoxication following Cocaine Consumption in the Province of Buenos Aires. (Buenos Aires, February 2022).

^{6.} United States Department of Justice. Opioid data. What is an opioid? (Washington D.C., February 2022).

^{7.} United Nations Office on Drugs and Crime (UNODC). Research Summary. COVID- 19 and the Drug Supply Chain: From Production and Traffic to Consumption. (Vienna, May 2020). https://www.unodc.org/documents/data-and-analysis/covid/Covid-19-and-drug-supply-chain-Mai2020.pdf

^{8.} Centers for Disease Control and Prevention (CDC). Drug Overdose Deaths in the U.S. Top 100,000 Annually. (November 2021). https://www.cdc.gov/nchs/pressroom/nchs_press_releases/2021/20211117.htm

Summary of information made public by official agencies of OAS member states, by international organizations, or directly reported to SATA between the fourth quarter of 2019 and the first quarter of 2022

The following is a summary of information made public by official agencies of OAS member states, by international organizations, or directly reported to SATA by national early warning systems between the fourth quarter of 2019 and the first quarter of 2022.



 Table 1: Emerging substances reported by official agencies of member states or
 from the early warning systems of Argentina, Brazil, Chile, Colombia, El Salvador, Trinidad and Tobago, and Uruguay, between the fourth quarter of 2019 and the first quarter of 2022.

	Argentina	Brazil	Chile	Colombia	El Salvador	Trinidad and Tobago	Uruguay
Synthetic opioids	Opioid adulterants in cocaine		Tramadol				Tramadol
Amphetamine- type stimulants					Sustancias Tipo "Éxtasis"		MDMA MDA
(ÁTS)					Methamphetamine		Methamphetamine
							DOC
Cannabis			Creepy/ Cripy / Krippy	Creepy/ Cripy / Krippy			
		5F-MDMB- PINACA					
		4F-MDMB- BINACA					
Synthetic		5F-MDMB-PICA					
cannabinoids		ADB-FUBIATA					
		MD-PV8					N-Etilpentilona
		N-Butylpentilona					Eutilone
		N-Butylhexedrona					
		N,N- Dietilpentilona					
Synthetic		N-Etilpentilona					
catimones		N-Etilheptedrona					
		BMDP					
		Etilona					
		Eutylona					
		tBuONE					
Phenethylamines		MMMP (Caccure 907)					
		6-Br-DMPEA					
	25B-NBOH 25C-NBOH 25E-NBOH 25I-NBOH	25B-NBOH 25C-NBOH 25E-NBOH 25I-NBOH		25B-NBOH 25C-NBOH 25E-NBOH 25I-NBOH			
		25B-NBOMe 25I-NBOMe			25B-NBOMe		2C-C-NBOMe
		2C-C 2C-E	2С-В		2С-В		2С-В 2С-Е
		3-CDC 4-CDC					
		DOET DOI					
Piperazines		TFMPP					
Plant-based		Bufotenine					
substances		Kratom					
Phencyclidine- type substances		Ketamine				Ketamine	Ketamine
Tryptamines		5-MeO-DMT					DMT
Other substances		2-fluoro- chloroacetamide	Sertraline				Sertraline



Summary of major emerging drugs reported to sata between the fourth quarter 2019 and first quarter 2022

Synthetic opioids

Among the synthetic opioids reported to the SATA between September 2019 and March 2022, fentanyl analogs stand out. Fentanyl is a synthetic opioid with multiple medical uses, usually for treating acute and chronic pain.⁹ Fentanyl analogs include those synthetic opioids with fentanyl-like effects, such as sufentanil, alfentanil, and remifentanil, and may have approved pharmaceutical uses. Other analogs, such as carfentanil, are more powerful and have no approved medical use in humans. While both fentanyl and its analogs are under international control and have legitimate uses, clandestine production of fentanyl and its analogs are common in illicit drug markets.¹⁰

Fentanyl and fentanyl analogs in LAC's illicit drug markets are usually mixed with other drugs or sold under the name of a common drug. The high potency of fentanyl and its analogs, particularly those produced clandestinely, and the fact that users are usually unaware of their presence have been associated with overdoses, intoxications, and deaths worldwide.¹¹

^{11.} Ministry of Health of Argentina. Recommendations of the Ministry of Health in Cases of Intoxication following Cocaine Consumption in the Province of Buenos Aires. [Buenos Aires, February 2022]. https://www.argentina.gob.ar/noticias/recomendaciones-del-ministerio-de-salud-ante-los-casos-de-intoxicacion-en-la-provincia-de



^{9.} Centers for Disease Control and Prevention (CDC). National Institute for Occupational Safety and Health (NIOSH). Fentanyl: Incapacitating Agent (CDC website, last revised May 2012). https://www.cdc.gov/niosh/ershdb/emergencyresponsecard_29750022.html

^{10.} United Nations Office on Drugs and Crime (UNODC). Global SMART Programme. Global Smart Update. (Vienna, Volume 17, 2017).

Another opioid substance that has raised concern is tramadol, reported by Uruguay in its EWS bulletin of April 2021.¹² Tramadol is an opioid analgesic that is prescribed primarily to treat mild to severe pain, both acute and chronic. Tramadol can produce a feeling of euphoria similar to oxycodone when ingested in high doses orally. Tramadol is not under international control, but given its diversion and use without medical supervision, it has been placed under control in several national legislations.¹³

A study conducted in 2020 by Chile's Public Health Institute (Spanish acronym ISP) to determine the potential impact of the COVID-19 pandemic on the drug market analyzed the quantity, composition, and purity of 348 seized "ecstasy" samples between March and June 2020 and compared them with 480 samples seized during the same period in 2019. The results indicated that "ecstasy" adulterated with tramadol was found in seven times more "ecstasy" samples in 2020 than in 2019.¹⁴

Amphetamine-type stimulants (ATS)

ATS are drugs that belong to the class of stimulants and, as such, excite or accelerate the central nervous system. They include those synthetic drugs that are chemical derivatives of alpha-methylphenethylamine.¹⁵ Between 2020 and 2022, these substances were reported by the respective national drug observatories of El Salvador and Uruguay. Reports from El Salvador indicate that while methamphetamine and MDMA seizures were almost zero between 2012 and 2019, its National Civil Police seized both substances numerous times in 2020. Uruguay issued a public alert in December 2021 following the identification of products with drug combinations. Among them, combinations of MDMA, MDA, and methamphetamine were found with other substances, such as synthetic cathinones, phenethylamines, and ketamine.¹⁶



^{12.} National Drug Board of Uruguay (Spanish acronym JND), Uruguayan Drug Observatory (Spanish acronym OUD), Early Warning System, EWS-Drugs of Uruguay. Bulletin VII, The Importance of Permanent Surveillance and Networking. (Montevideo, April 2021).

^{13.} International Narcotics Control Board (INCB). Alert 7 on the Control of Psychotropic Substances. Tramadol, Global Status Review. (Vienna, June 2018). https://www.incb.org/documents/News/Alerts/Alert7_on_Control_of_Psychotropic_Substances_June_2018.pdf

^{14.} Public Health Institute of Chile (Spanish acronym ISP). Detection of Variations in the Presence of Adulterants in Seizures of Cocaine and Other Drugs (Santiago, Chile, July 2020). https://www.ispch.cl/noticia/isp-detecta-variaciones-en-la-presencia-de-adulterantes-en-decomisos-de-cocaina-y-otras-drogas/

^{15.} European Journal of Pharmacology. Advances and Challenges in Pharmacotherapy for Amphetamine-Type Stimulant Addiction. (Volume 780, June 2016).

https://www.sciencedirect.com/science/article/abs/pii/S0014299916301704

^{16.} National Drug Board of Uruguay (JND), Idem.

Cannabis

The Colombian EWS reported in 2019 that high potency cannabis strains are circulating in the market. These high potency strains have a delta-9-tetrahydrocannabinol (THC) content of more than 10%, and are known as "creepy," "crippy," or "crippa." Another high THC cannabis substance used in vaporizers is "Wax," which is extracted from the cannabis wax in the flower of the plant. In contrast, more typical cannabis on the market has a THC content of around 5%.¹⁷ THC is the main psychoactive substance in marijuana, responsible for most of the intoxicating effects sought by people who consume marijuana or other types of cannabis.¹⁸ Chile's Drug Trafficking Observatory reported the seizure of 5.5 tons of "creepy" marijuana in 2020. Four of these tons were seized in a single operation. Chile also reported that there is a greater trend towards maritime trafficking of "creepy" marijuana, while land route seizures have decreased. In total, seizures of "creepy" in Chile increased by 700 percent between 2017 and 2020.¹⁹

Synthetic cannabinoids

Synthetic cannabinoids or synthetic cannabinoid receptor agonists (SCRAs) are categorized under new psychoactive substances (NPS) according to their chemical composition. They are a class of synthetic drugs functionally similar to THC that bind to the same cannabinoid receptors in the brain. However, they can have much more dangerous adverse effects than marijuana.²⁰ Some studies have shown that synthetic cannabinoids are much more potent than THC because they act as full agonists of cannabinoid receptors, whereas THC is a partial agonist.²¹ Even at low doses, synthetic cannabinoids activate cannabinoid receptors more potently than THC.

https://nida.nih.gov/publications/research-reports/marijuana/what-marijuana

^{21.} An agonist is a drug or substance that binds to a receptor inside a cell or on its surface and causes the same action as the substance that normally binds to the receptor.



^{17.} Ministry of Justice and Law of Colombia, Colombian Observatory on Drugs (Spanish acronym O.D.C.), Early Warning System, SAT-Colombia. Information Alert on Health Effects of Some Cannabis Varieties. (Bogota, December 2019).

^{18.} National Institute on Drug Abuse (NIDA). Cannabis Research Report. (Bethesda, July 2020).

^{19.} Public Prosecutor's Office of Chile, Drug Trafficking Observatory. 2020 Report. (Santiago de Chile, May 2020).

^{20.} European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Drug Profile of Synthetic Cannabinoids. (EMCDDA website visited in May 2022).

https://www.emcdda.europa.eu/publications/drug-profiles/synthetic-cannabinoids_en

The Brazilian Rapid Alert Subsystem reported synthetic cannabinoids in its first report.²² There is evidence of paper sheets impregnated with synthetic cannabinoids shipped through postal parcels into Brazilian prisons.²³ Most synthetic cannabinoids cannot be detected through commercially available rapid test systems, and are therefore highly prevalent in prisons and in general among people regularly tested for drug abstinence. Often synthetic cannabinoids are smuggled into prisons in paper sheets impregnated with synthetic cannabinoids (e.g., letters or paintings).²⁴ The various health restrictions imposed during the COVID-19 pandemic in prisons may have stimulated the shipment of this form of cannabis due to the difficulty of detecting cannabinoids in this form.²⁵

Two synthetic cannabinoids were identified by the Brazilian Federal Police in 2020: 4F-MDMB-BINACA and 5F-MDMB-PICA.²⁶ The second substance was ADB-FUBIATA (K4), detected in a seizure of postal parcels in November 2021. ADB-FUBIATA seems to be a new substance, which until December 2021 had only appeared in alerts in the United States and Russia.²⁷

Synthetic cathinones

Synthetic cathinones, popularly known as bath salts, are manufactured drugs chemically related to cathinone, one of the psychoactive principles of the khat plant (Catha edulis Forsk). There is insufficient information on how synthetic cathinones affect the human brain, but they are known to be chemically similar to stimulant drugs such as amphetamine, cocaine, and MDMA.²⁸ The synthetic cathinones most commonly available on the illicit drug market are mephedrone and methylone. Substances in this category also include methcathinone, amfepramone, and pyrovalerone.²⁹



^{22.} Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (Portuguese acronym SENAD), Brazilian Rapid Alert Subsystem. First Report (Brasilia, January 2022).

^{23.} Ministry of Justice and Public Security of Brazil. Idem.

^{24.} Verena Angerer, Carolin Möller and Volker Auwärter. Forensic Toxicology. Institute of Forensic Medicine, Medical Center. University of Freiburg. (Freiburg, 2017). https://www.uniklinik-freiburg.de/fileadmin/mediapool/08_institute/rechtsmedizin/pdf/Poster_2018/Angerer_V_-_Tiaft_2018.pdf

Ministry of Justice and Public Security of Brazil. Idem.
Ministry of Justice and Public Security of Brazil. Idem.

Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (SENAD), Brazilian Rapid Alert Subsystem. Second Report. (Brasilia, April 2022).
National Institute on Drug Abuse (NIDA). What are Synthetic Cathinones? (Bethesda, July 2020).

https://nida.nih.gov/publications/drugfacts/synthetic-cathinones-bath-salts

^{29.} European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). Drug Profile, Synthetic Cathinones. (Lisbon, September 2011). https://www.emcdda.europa.eu/publications/drug-

Brazil and Uruguay reported synthetic cathinones in their national alerts. Brazil detected 10 synthetic cathinones in 2020, most of them in "ecstasy" type tablets or in the form of crystals, imitating MDMA presentations.³⁰ In Uruguay, the synthetic cathinone N-ethylpentylone was detected for the first time in 2020, also in tablet form.³¹ Uruguay also identified tablets with MDMA and eutilone combinations. Eutilone is a substance with stimulant effects, as reported to the UNODC Early Warning Advisory by 41 countries between 2013 and 2021.^{32,33}

Phenethylamines

Phenethylamines refer to a class of substances with psychoactive and stimulant effects.³⁴ Psychoactive substances of the phenethylamines class were those most frequently detected in the region in the period covered by this bulletin. A total of 16 phenethylamines were reported from six countries: Argentina, Brazil, Chile, Colombia, El Salvador, and Uruguay.³⁵ The most recurrent were substances belonging to the 2C and NBOMe families. For example, 2C-B is marketed as a pink powder, and was reported by Chile, El Salvador, and Uruguay. It is erroneously often called "pink cocaine;" however, 2C-B has no chemical relationship to cocaine.³⁶ Different variants of the NBOMe substance were reported from Brazil, Chile, El Salvador, and Uruguay. These are often marketed in paper cutouts as "LSD."³⁷

31. Judiciary of Uruguay. Technical Forensic Institute of the Judiciary. EWS Report 4. [Montevideo, August 2020]. https://sat.presidencia.gub.uy/wp-content/uploads/2020/08/INFORME-SAT-4-20_ITF.pdf

^{37.} National Anti-drugs Commission (Spanish acronym CNA) of El Salvador, Salvadoran Observatory on Drugs. Early Warning System: Synthetic Drugs and New Psychoactive Substances. (San Salvador, October 2020).



^{30.} Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (SENAD), Brazilian Drug Rapid Warning Subsystem. First Report. (Brasilia, January 2022).

^{32.} National Drug Board of Uruguay (JND), Uruguayan Drug Observatory (OUD), Early Warning System, EWS-Drugs of Uruguay. Bulletin VIII, Combined Drugs: Current Issues and Challenges. (Montevideo, December 2021).

^{33.} United Nations Office on Drugs and Crime (UNODC). UNODC EWA. The World Health Organization recommends 3 NPS for scheduling. (Vienna, December 2021).

https://www.unodc.org/LSS/Announcement/Details/cc71f882-17e8-4637-b8d0-0ee0d02d7b0d 34. United Nations Office on Drugs and Crime (UNODC). Laboratory and Scientific Services Portals. (UNODC website, visited in May 2022).

https://www.unodc.org/LSS/SubstanceGroup/Details/275dd468-75a3-4609-9e96-cc5a2f0da467

^{35.} See table 1.

^{36.} United Nations Office on Drugs and Crime (UNODC). Global SMART Programme. Synthetic Drugs and New Psychoactive Substances in Latin America and the Caribbean. (Vienna, September 2021).

Piperazines

Piperazines cover a wide range of drugs, from antidepressants to antihistamines. Piperazines, such as benzylpiperazine (BZP), 1-(3-trifluoromethylphenyl) piperazine (TFMPP) and m-chlorophenylpiperazine (mCPP) have a stimulant effect on the central nervous system (CNS) similar to MDMA. For example, BZP is a stimulant with about 10 percent of the potency of d-amphetamine. It is estimated that in 2006, almost 10 percent of illicit tablets sold as "ecstasy"-type substances in the European Union contained mCPP. By 2009 that proportion increased to 50 percent in some European countries.³⁸ In Latin America, Brazil was the only country to report piperazine.³⁹ Laboratory analysis confirmed that it was TFMPP, sold in Brazil as an alternative to MDMA, usually in combination with BZP and other analogs.

Plant-based substances

Although most NPS are synthetic drugs, UNODC includes a category of plant-based psychoactive substances that have recently entered the illicit drug market or whose use has increased significantly in recent years. Examples of these are khat, salvia divinorum, and the kratom tree.⁴⁰ For example, khat leaves contain several active substances including cathinone, katyn, and katydine, whose chemical structure resembles amphetamine. Chewing khat leaves extracts 90 percent of the cathinone, corresponding to a low dose of amphetamine.⁴¹

In the period covered by this bulletin, two plant-based substances were found in Brazil, bufotenine, and kratom. Bufotenine is an alkaloid with hallucinogenic effects. It is found in nature, among other things, as toxins synthesized by venomous animals. On the other hand, Kratom is an herbal substance that can produce effects similar to opioids and stimulants.⁴²

^{42.} Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (SENAD), Brazilian Rapid Alert Subsystem. First Report. (Brasilia, January 2022).



^{38.} European Monitoring Centre for Drugs and Drug Addiction (EMCDDA). BZP/piperazine drug profile. (Lisbon, September 2011). https://www.emcdda.europa.eu/publications/drug-profiles/bzp_en

Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (SENAD), Brazilian Rapid Alert Subsystem. First Report. (Brasilia, January 2022).
United Nations Office on Drugs and Crime (UNODC). Laboratory and Scientific Services Portals. (UNODC website, visited in May 2022).

https://www.unodc.org/LSS/SubstanceGroup/Details/4b17fe10-91da-477c-bc3d-593136040668

^{41.} Barbara Sawicka et al. Medical and Clinical Research. Stimulants and Psychoactive Substances of Plant Origin: Social and Economic Aspects. (ISSN: 2577 – 8005, November 2020).

Phencyclidine-type substances

Phencyclidine-type substances are structurally similar to phencyclidine (PCP) and act predominantly as central nervous system stimulants or dissociatives. Examples are ethylcyclidine (ECP), rolicyclidine (PHP, PCPY), and ketamine.⁴³ Ketamine is related to PCP, but has less than 10 percent of the potency of pure PCP. The illicit use of ketamine causes effects such as floating sensations, alterations in body image and mood, drowsiness, vivid dreams, delirium, and hallucinations.⁴⁴ Brazil, Trinidad and Tobago, and Uruguay reported ketamine during the period covered by this bulletin. Trinidad and Tobago seized nearly 13 kilograms of ketamine in January 2022.⁴⁵ Uruguay reported ketamine in combination with other substances.⁴⁶ Uruguay also found combinations of ketamine with ATS such as methamphetamine and MDMA, phenethylamines such as 2C-B and DOC, and antidepressant drugs such as sertraline.⁴⁷

Tryptamines

Tryptamine and its derivatives reported as NPS are indolealkylamine molecules. While some naturally occurring tryptamines are neurotransmitters (e.g., serotonin, melatonin, and bufotenine), most are psychoactive hallucinogens found in plants, fungi, and animals.⁴⁸ Brazil and Uruguay reported dimethyltryptamine-based substances.⁴⁹ In the case of Uruguay, tryptamine DMT was mixed with phenethylamine 2C-C-NBOMe.⁵⁰

45. Regional Intelligence Fusion Center (RIFC) of Trinidad and Tobago. Ketamine Alert. (Port of Spain, February 2022).

https://www.unodc.org/LSS/SubstanceGroup/Details/68c027b6-0ed9-4c07-a139-7f1ca7ffce8

49. Ministry of Justice and Public Security of Brazil, National Secretariat of Drug Policies (SENAD), Brazilian Rapid Alert Subsystem. First Report. (Brasilia, January 2022).

50. National Drug Board of Uruguay (JND), Uruguayan Drug Observatory (OUD), Early Warning System, EWS-Drugs of Uruguay. Bulletin VIII, Combined Drugs: Current Issues and Challenges. [Montevideo, December 2021].



^{43.} United Nations Office on Drugs and Crime (UNODC). The Challenge of New Psychoactive Substances. (Vienna, March 2013).

https://www.unodc.org/LSS/SubstanceGroup/Details/6bf165ed-82e7-47e0-9eaa-daacc42d99cd

^{44.} William J Maloney. International Journal of Depression and Anxiety. The Health Effects of Ketamine Abuse. (Int J Depress Anxiety 1:006, October 2018).

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Other substances

In Chile, the aforementioned ISP study, which analyzed the quantity, composition, and purity of 348 seized samples of "ecstasy" between March and June, 2020, and compared them with 480 samples seized during the same period in 2019, found twice as many samples of "ecstasy" adulterated with Sertraline in 2020, compared to 2019.⁵¹ Sertraline is a class of selective serotonin reuptake inhibitors (SSRIs), a group of the most commonly prescribed antidepressants. It is used to control and treat a variety of psychological disorders including major depressive disorder, obsessive-compulsive disorder, panic disorder, post-traumatic stress disorder, premenstrual dysphoric disorder, and social anxiety disorder.⁵²

Brazil reported the presence of 2-chloroacetamide, an industrial chemical. Canada reported its use as a pesticide, in paints, adhesives, dyes, detergents, textiles, and related industries regulated under the Pest Control Products Act.⁵³

https://www.ncbi.nlm.nih.gov/books/NBK547689/



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