



UNODC

United Nations Office on Drugs and Crime



Global SMART
Programme

FACTSHEET “NEW PSYCHOACTIVE SUBSTANCES”

In recent years, the market for amphetamine-type stimulants (ATS) has been characterized by the appearance of several new substances, which often have chemical and/or pharmacological properties similar to internationally controlled substances. Their variety has never been as great as it is now.

What are NPS? New psychoactive substances (NPS) have been known in the market by terms such as ‘designer drugs’, ‘legal highs’, ‘herbal highs’, ‘bath salts’, ‘research chemicals’, ‘laboratory reagents’. To promote clear terminology on this issue, UNODC only uses the term “new psychoactive substances (NPS)” which are defined 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”. The term ‘new’ does not necessarily refer to new inventions-- several NPS were first synthesized 40 years ago-- but to substances that have recently emerged on the market and which have not been scheduled under the above Conventions.

Categories of NPS sold in the market

Synthetic cannabinoids – These are cannabinoid receptor agonists which produce effects similar to those of delta-9-tetrahydrocannabinol (THC), the principal psychoactive component in cannabis. Synthetic cannabinoids are often laced onto herbal products and sold as *spice*, *K2*, *Kronic*, etc.

Synthetic cathinones – These are analogues/derivatives of the internationally controlled substance cathinone, one of the active components of the khat plant. They generally have stimulant effects and include frequently reported NPS such as mephedrone and MDPV.

Ketamine - A human and veterinary anesthetic which acts as a stimulant at low doses and a hallucinogen at high doses. It is one of the most widespread NPS in Asia.

Phenethylamines – This group contains substances related to amphetamine and methamphetamine, and generally produces stimulant effects. However, modification of these compounds can lead to potent hallucinogens such as *Bromo-Dragonfly*.

Piperazines – These substances are frequently sold as ‘ecstasy’ due to their central nervous system stimulant properties. The most commonly reported members of this group are benzylpiperazine (BZP) and mCPP (1-(3-chlorophenyl) piperazine)

Plant-based substances- This group includes plants with psychoactive properties. The most frequently reported are:

Kratom (*mitragyna speciosa* Korth), a plant indigenous to South-East Asia that contains the alkaloid mitragyne; a stimulant at low doses and sedative at high doses.

Salvia divinorum, a plant indigenous to forest areas in Oxaca, Mexico, which contains the active ingredient *salvinorin A*, a hallucinogenic substance.

Khat (*Catha edulis*), a plant native to the horn of Africa and the Arabian peninsula. The leaves of the plant are chewed, resulting in the release of the stimulants cathinone and cathine.

Other substances – such as **aminoindanes** (stimulants), **phencyclidine-type** substances (hallucinogens) and **tryptamines** (hallucinogens).

What are the risks of NPS? The use of NPS is often linked to health problems. NPS users have frequently been hospitalized with severe intoxications. There have also been a number of unexplained suicides with preceding use of synthetic cannabinoids (*spice*). In addition, substances like 4-methylmethcathinone (mephedrone), methylenedioxypropylamphetamine (MDPV), 4-methylamphetamine (4-MA) have been associated with fatalities.

How widespread are NPS? According to the forthcoming UNODC report “The challenge of new psychoactive substances”, NPS have become a global phenomenon and all regions of the world have been affected by it. In a questionnaire that was distributed to Governments and drug analysis laboratories, respondents from 70 (out of 80) countries and territories (88%) reported the emergence of NPS.¹

How many NPS are there? UNODC research found 251 substances, including ketamine, which were reported by Governments and laboratories around the world (see box for the categories of NPS frequently sold). This figure is greater than the 234 substances scheduled under the 1961 and 1971 Conventions. In February 2013, five new substances were reported by drug analysis laboratories. Technically, the number of potential derivatives is unlimited. As long as there is no global monitoring mechanism on such substances, information on them will remain inconsistent.

What is the legal situation? NPS are not under international control. Many countries have established permanent control measures for some substances or issued temporary bans. Only a handful of NPS have been reviewed by the mechanism established under the 1961 and 1971 Conventions. Responses in this area are likely to be most effective if they are coordinated across countries and regions. NPS are also a challenge for prevention and treatment. Instead of moral panic, objective and credible information is needed. In this respect, it is particularly important to create risk awareness among young people. Prevention measures should also target experienced drug users.

How can I find out more about NPS? In 2012, pursuant to Commission on Narcotic Drugs resolution 55/1, UNODC reviewed the appearance of NPS in global markets and issued the first global overview of information on these substances and their use as well as a list of the substances reported to it in 2012. Future plans include the development of an online knowledge hub for NPS which will be accessible to policy-makers and experts to find out the most relevant facts about certain NPS.

How is UNODC assisting Governments in this area? To assist Member States in their identification of NPS, UNODC plans to establish an Early Warning Advisory. Forensic information is essential and laboratories play a key role in identifying NPS. Accurate identification of NPS is a challenge and there is a need to improve information sharing on validated identification techniques. As part of addressing this challenge, UNODC has therefore been working on manuals on the identification of synthetic cannabinoids, synthetic cathinones and piperazines which are expected to be published in 2013.

¹ Albania, Andorra, Angola, Argentina, Australia, Bahrain, Belgium, Bosnia and Herzegovina, Brazil, Brunei Darussalam, Bulgaria, Canada, Cape Verde, Chile, China, Colombia, Costa Rica, Croatia, Ecuador, Egypt, Finland, France, Georgia, Germany, Ghana, Greece, *Hong Kong SAR*, Hungary, Indonesia, Ireland, Israel, Italy, Japan, Jordan, Latvia, Lebanon, Liechtenstein, Lithuania, Luxembourg, Malaysia, Malta, Mexico, Republic of Moldova, Mongolia, Netherlands, New Zealand, Norway, Oman, Panama, Philippines, Poland, Portugal, Romania, Russian Federation, Saudi Arabia, Serbia, Singapore, Slovakia, South Africa, Spain, Switzerland, Thailand, Togo, Turkey, United Arab Emirates, United Kingdom, United States of America, Uruguay, Viet Nam and Zimbabwe.