Synthetic cannabinoid receptor agonists (SCRA, synthetic cannabinoids) – These substances bear structural features that allow binding to one of the known cannabinoid receptors and produce effects similar to those of delta-9-tetrahydrocannabinol (THC), the only known psychoactive component in cannabis. TheseSCRAs are often laced onto herbal products.

Stimulants – A chemically diverse group of substances (including phenethylamines, cathinones, aminoindanes and piperazines), which act as central nervous system* stimulants by mediating the actions of dopamine, nor-epinephrine and serotonin, resulting in a range of effects e.g. stimulant, entactogenic and hallucinogenic. Substances mimic the effects of traditional drugs such as amphetamine, cocaine, ecstasy (MDMA), and methamphetamine.

Sedatives / Hypnotics – Substances in this group are central nervous system* depressants, with actions derived from their activation of receptors in the GABA receptor complex in the brain. They mimic the effects of substances under international control such as the benzodiazepines diazepam and alprazolam.

Opioids – A chemically diverse group of substances (e.g. fentanyl and derivatives of opiates) which are central nervous system* depressants. They bear structural features that allow binding to specific opioid receptors, resulting in morphine-like effects e.g. analgesia.

Dissociatives – These substances form a class of hallucinogens which modulate effects at the N-methyl-D-aspartate (NMDA) receptor in the brain and produce feelings of detachment and dissociation of "the self and the environment". They mimic the effects of substances under international control such as phencyclidine (PCP).

Plant-based substances were excluded from the analysis as they usually contain a large number of different substances some of which may not even be known and whose effects and interactions are not fully understood.

Note: The analysis of the pharmacological effects comprises of 950 synthetic NPS reported to the EWA until December 2019. Plant-based substances were excluded from the analysis as they usually contain a large number of different substances some of which may not even be known and whose effects and interactions are not fully understood.

Note: Percentage sum may exceed 100% due to rounding of decimals.

* The central nervous system (CNS) is a part of the nervous system, which comprises the brain and spinal cord, and is responsible for most functions of the body, including processes under voluntary and involuntary control. Functions range from breathing and blinking, which are involuntary processes, to speaking and walking, which are voluntary processes, and to emotions and perceptions.

** Not yet assigned