

diverse group of substances

**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, nore-pinephrine and serotonin, resulting in a range of effects e.g. stimulant, entactogenic and hallucinogenic. Substances mimic the effects of traditional drugs such as cocaine, amphetamine, methamphetamine and ecstasy.

Opioids - A chemically diverse group of substances (e.g. fentanyls, 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.

2%

35%

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. These SCRAs are often laced onto herbal products and sold as Spice, K2, Kronic, etc.

Effect groups of

NPS

18%

2% 5%\*\*

35%

1

**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 from self and the environment. Substances in this group include the controlled substance phencyclidine (PCP) and ketamine.

**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.

'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

Note: The analysis of the pharmacological effects comprises of 621 synthetic NPS registered in the EWA until December 2015. Plant-based substances were excluded from the analysis as they usually contain a large number of different substances some of which may not even been known and whose effects and interactions are not fully understood.



Classic hallucinogens (psychedelics) – A chemically diverse group of substances (e.g. ring-substituted phenethylamines, tryptamines and lysergamides) which mediate specific serotonin-receptor activities and produces hallucinations. Substances in these group mimic the effects of traditional drugs such as 2C-B, LSD and DMT but may also possess residual stimulant activity (e.g. 25C-NBOMe).