

New Systematic Naming for Synthetic Cannabinoid “MDA-19” and Its Related Analogues: BZO-HEXOXIZID, 5F-BZO-POXIZID, and BZO-POXIZID

Purpose: Cayman Chemical and NPS Discovery at the Center for Forensic Science Research and Education (CFSRE) have developed new, more appropriate names to address the newly emergent “MDA-19” and its related analogues following the systematic convention typically used for synthetic cannabinoid nomenclature.

Background: Synthetic cannabinoids represent a vastly diverse sub-class of novel psychoactive substances (NPS). The turnover of this sub-class is largely linked to drug scheduling actions and, like other sub-classes of NPS, new drugs were historically produced via slight tweaks to the molecular structure. In May 2021, China announced new legislation to control synthetic cannabinoids as a class using commonly encountered structural backbones. This has resulted in the emergence of new generations of synthetic cannabinoids with core components that were previously unencountered and/or not well characterized. An example is “MDA-19” and its related analogues. “MDA-19” is a CB₂ agonist and was studied, like many synthetic cannabinoids, under legitimate research for pharmaceutical purposes. Similar to JWH-018 and other early synthetic cannabinoids, naming conventions utilizing the initials of a researcher or organization are not ideal and may be misleading (e.g., the abbreviation “MDA” is also used for the stimulant drug methylenedioxymphetamine). A well-accepted systematic naming convention exists for synthetic cannabinoids and should be applied, where appropriate, to avoid any confusion or mischaracterization.

Summary: Our scientists developed a new naming convention for the emerging “OXIZID” generation of synthetic cannabinoids. “OXIZID” represents the core/linker region of the synthetic cannabinoid structure. Like other synthetic cannabinoids, head and tail constituents are abbreviated following previously developed or understood schemes.



BZO-HEXOXIZID	BZO-POXIZID	5F-BZO-POXIZID
(Z)-N'-(1- HEX yl-2- OX oIndolin-3-ylidene) BenZO hydra ZID e	(Z)-N'-(1- P entyl-2- OX oIndolin-3-ylidene) BenZO hydra ZID e	(Z)-N'-(1-(5-Fluor Pentyl-2- OX oIndolin-3-ylidene) BenZO hydra ZID e
Name: BZO-HEXOXIZID	Name: BZO-POXIZID	Name: 5F-BZO-POXIZID
Synonyms: MDA-19 , MDA19 , MDA 19	Synonyms: 5C-MDA-19 , MDA-19 pentyl analogue	Synonyms: 5F-MDA-19 , MDA-19 5-fluoropentyl analogue

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