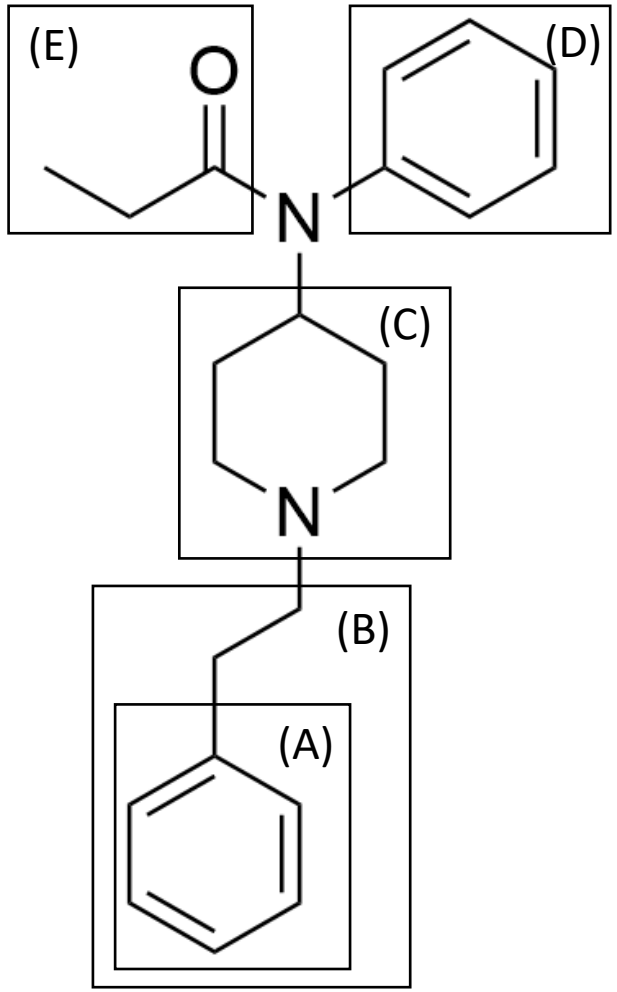
FY 2026 Controlled Substance HB2765

The KBI Laboratory's Perspective

02/11/2026

Fentanyl Class Definition

- Federal Fentanyl Class
  - Halt All Lethal Trafficking of Fentanyl Act (HALT Fentanyl Act) went into effect on July 16, 2025*
    - Permanently schedules the “Fentanyl Related Substances” class at the federal level
  - Has been temporarily listed federally since 2018



Fentanyl

*https://www.congress.gov/bill/119th-congress/senate-bill/331/text#:~:text=119%2D26%20(07/16,21%20USC%20801%20note%20

Fentanyl Class Definition

- Fentanyl Class

(2) "Fentanyl-related substance" means any substance that is structurally related to fentanyl by one or more of the following modifications:

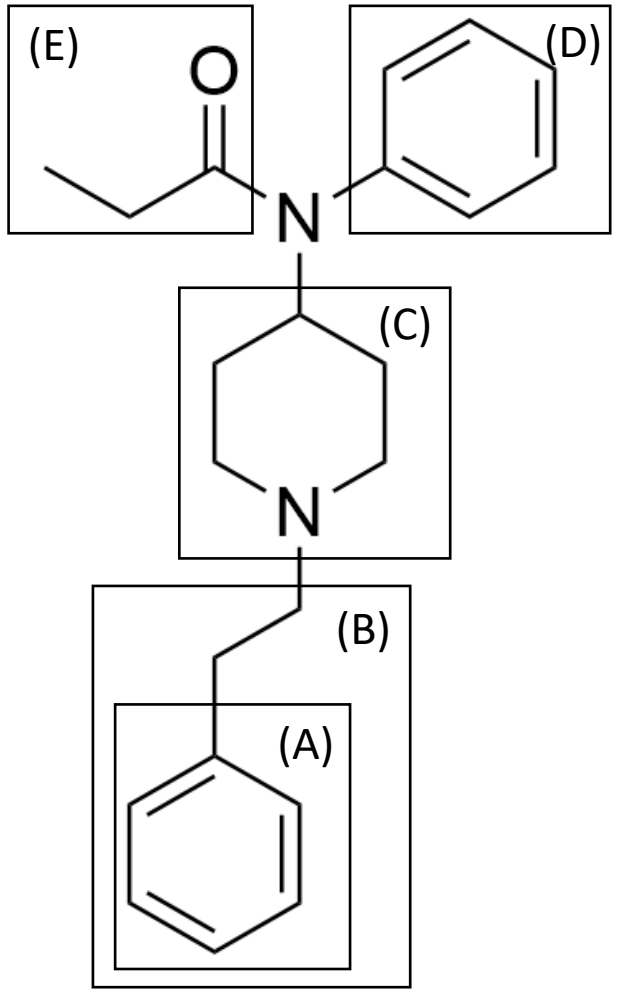
(A) Replacement of the phenyl portion of the phenethyl group by any monocycle, whether or not further substituted in or on the monocycle;

(B) substitution in or on the phenethyl group (or replacement as described in sub-paragraph (A)) with alkyl, alkenyl, alkoxyl, hydroxyl, halo, haloalkyl, amino or nitro groups;

(C) substitution in or on the piperidine ring with alkyl, alkenyl, alkoxyl, ester, ether, hydroxyl, halo, haloalkyl, amino or nitro groups;

(D) replacement of the aniline ring with any aromatic monocycle whether or not further substituted in or on the aromatic monocycle; or

(E) replacement of the N-propionyl group by another acyl group.



Fentanyl

Fentanyl Analog Example

- Fentanyl Class

(2) "Fentanyl-related substance" means any substance that is structurally related to fentanyl by one or more of the following modifications:

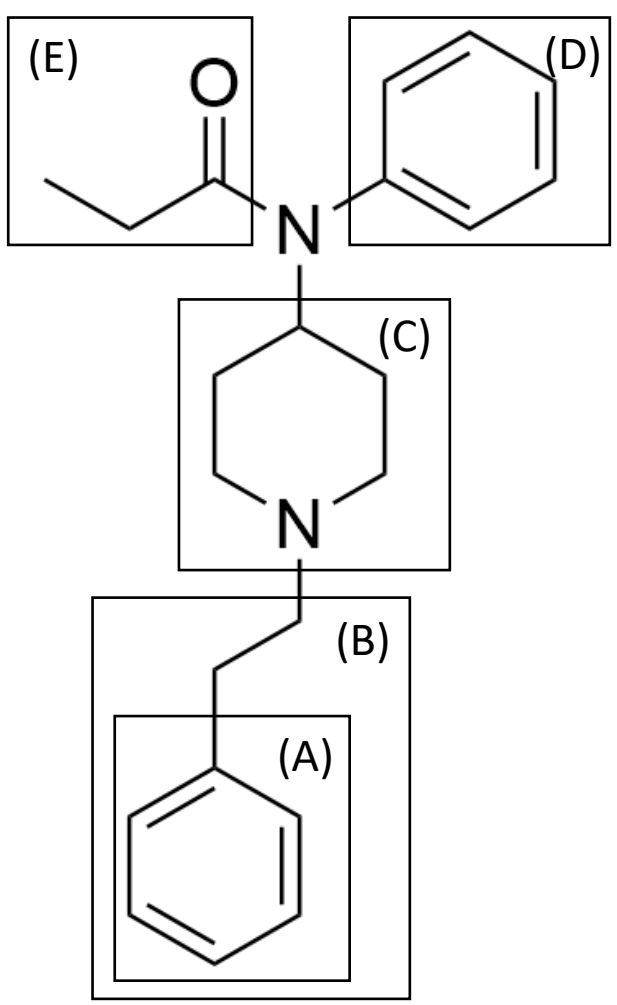
(A) Replacement of the phenyl portion of the phenethyl group by any monocycle, whether or not further substituted in or on the monocycle;

(B) substitution in or on the phenethyl group (or replacement as described in sub-paragraph (A)) with alkyl, alkenyl, alkoxyl, hydroxyl, halo, haloalkyl, amino or nitro groups;

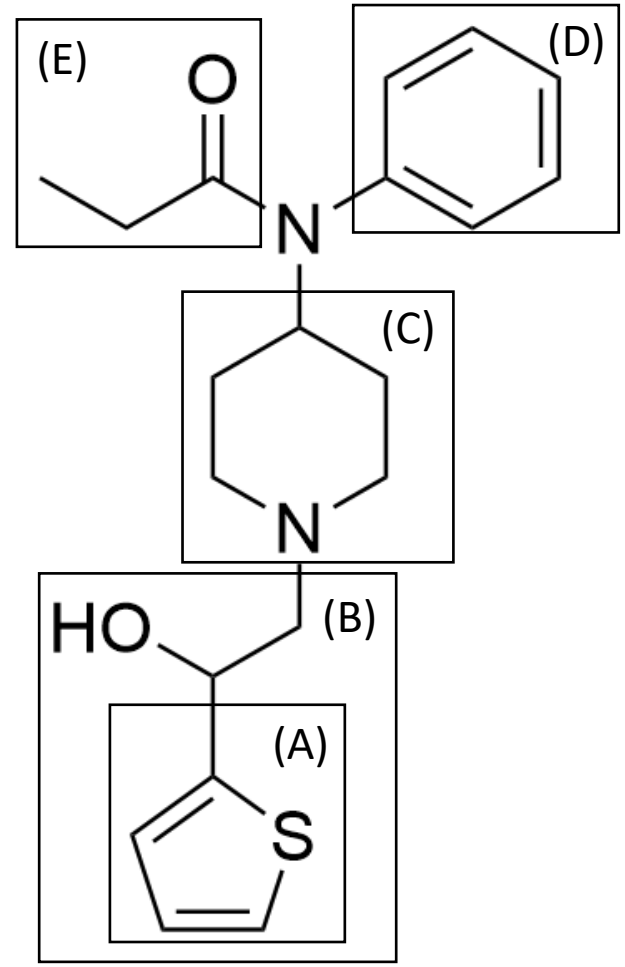
(C) substitution in or on the piperidine ring with alkyl, alkenyl, alkoxyl, ester, ether, hydroxyl, halo, haloalkyl, amino or nitro groups;

(D) replacement of the aniline ring with any aromatic monocycle whether or not further substituted in or on the aromatic monocycle; or

(E) replacement of the N-propionyl group by another acyl group.



Fentanyl



Beta-hydroxythiofentanyl

THC Renumbering

Tetrahydrocannabinols 7370 Meaning tetrahydrocannabinols naturally contained in a plant of the genus Cannabis (cannabis plant), as well as synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. and/or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity such as the following: Delta 1 cis or trans tetrahydrocannabinol, and their optical isomers Delta 6 cis or trans tetrahydrocannabinol, and their optical isomers Delta 3,4 cis or trans tetrahydrocannabinol, and its optical isomers (Since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions covered.), except tetrahydrocannabinols in any of the following:

(A) Industrial hemp, as defined in K.S.A. 2-3901, and amendments thereto;

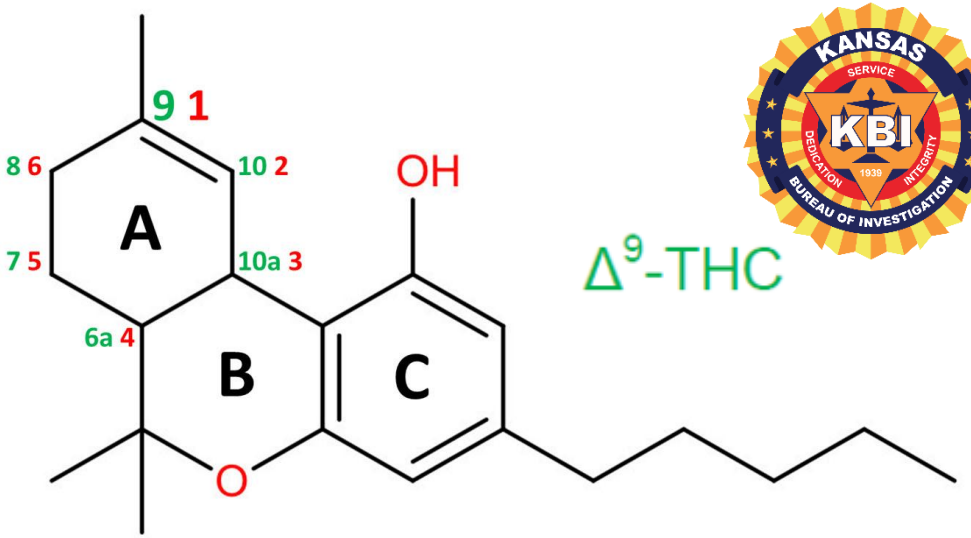
(B) solid waste, as defined in K.S.A. 65-3402, and amendments thereto, and hazardous waste, as defined in K.S.A. 65-3430, and amendments thereto, if such waste is the result of the cultivation, production or processing of industrial hemp, as defined in K.S.A. 2-3901, and amendments thereto, and such waste contains a delta-9 tetrahydrocannabinol concentration of not more than 0.3%; or

(C) hemp products, as defined in K.S.A. 2-3901, and amendments thereto, unless otherwise deemed unlawful pursuant to K.S.A. 2-3908, and amendments thereto.

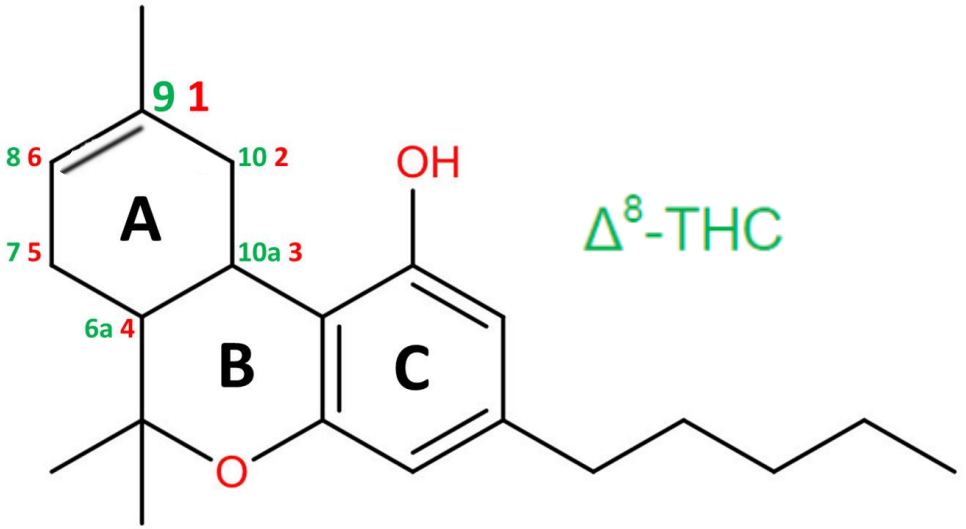
https://www.kslegislature.gov/li/b2025_26/statute/065_000_0000_chapter/065_041_0000_article/065_041_0005_section/065_041_0005_k/

THC Renumbering

Monoterpenoid numbering reference	Dibenzopyran numbering reference
Δ^{1}-THC (controlled)	Δ^{9}-THC (controlled)
Δ^{6}-THC (controlled)	Δ^{8}-THC (controlled)
$\Delta^{3,4}$-THC (controlled)	$\Delta^{6a,10a}$-THC (controlled)



Δ^{9}-THC



Δ^{8}-THC

Ring Designation
A – terpene ring
B – pyran ring
C – phenolic ring

THC Renumbering – Proposed Language

Tetrahydrocannabinols 7370 Meaning tetrahydrocannabinols naturally contained in a plant of the genus Cannabis (cannabis plant), as well as synthetic equivalents of the substances contained in the plant, or in the resinous extractives of Cannabis, sp. and/or synthetic substances, derivatives, and their isomers with similar chemical structure and pharmacological activity such as the following: Delta ~~1~~ 9 cis or trans tetrahydrocannabinol, and their optical isomers; Delta ~~6~~ 8 cis or trans tetrahydrocannabinol, and their optical isomers; and Delta ~~3,4~~ 6a,10a cis or trans tetrahydrocannabinol, and its their optical isomers ~~(Since nomenclature of these substances is not internationally standardized, compounds of these structures, regardless of numerical designation of atomic positions covered.)~~, except tetrahydrocannabinols in any of the following:

(A) Industrial hemp, as defined in K.S.A. 2-3901, and amendments thereto;

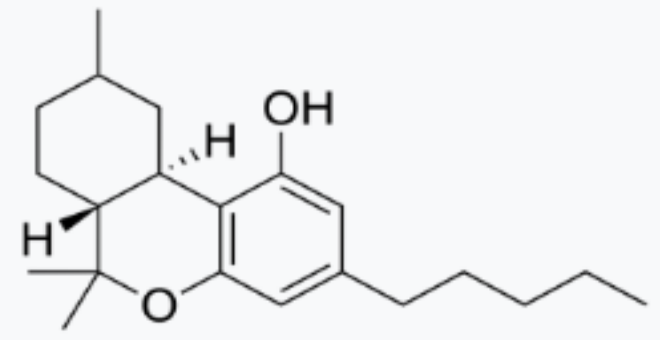
(B) solid waste, as defined in K.S.A. 65-3402, and amendments thereto, and hazardous waste, as defined in K.S.A. 65-3430, and amendments thereto, if such waste is the result of the cultivation, production or processing of industrial hemp, as defined in K.S.A. 2-3901, and amendments thereto, and such waste contains a delta-9 tetrahydrocannabinol concentration of not more than 0.3%; or

(C) hemp products, as defined in K.S.A. 2-3901, and amendments thereto, unless otherwise deemed unlawful pursuant to K.S.A. 2-3908, and amendments thereto.

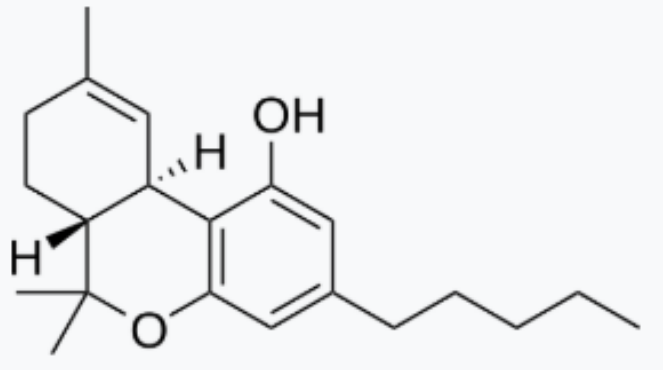
For the purposes of this subsection, the dibenzopyran system is the numbering convention used to identify the carbon atoms of the chemical structure.

Hexahydrocannabinol

- Hexahydrocannabinol (HHC)
  - Hydrogenation product of THC
  - Produced synthetically so should be considered a synthetic cannabinoid
  - Potency of (R) isomer is as potent as delta 9 THC while (S) isomer is about 12X less potent*
  - Controlled by United Nations March 2025**
  - Potentially banned federally in 2025 continuing appropriations bill (goes into effect 11/12/2026 and will depend on FDA and HHS regulations)***



Hexahydrocannabinol (HHC)



Delta 9 tetrahydrocannabinol (THC)

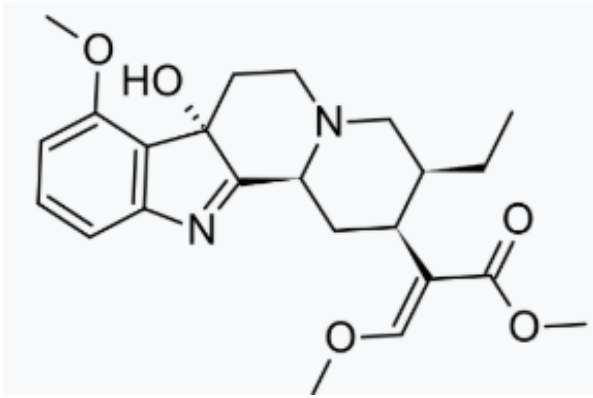
*Studies Pertaining to the Emerging Cannabinoid Hexahydrocannabinol (HHC), Daniel J. Nasrallah and Neil K. Garg, ACS Chemical Biology 2023 18 (9), 2023-2029, DOI: 10.1021/acschembio.3c00254

**https://www.who.int/news/item/13-03-2025-un-commission-approves-who-recommendations-to-place-psychoactive-substances-under-international-control

***https://www.congress.gov/bill/119th-congress/house-bill/5371/text#H67EBC27BD52C45D6A676D9A3CC33750A

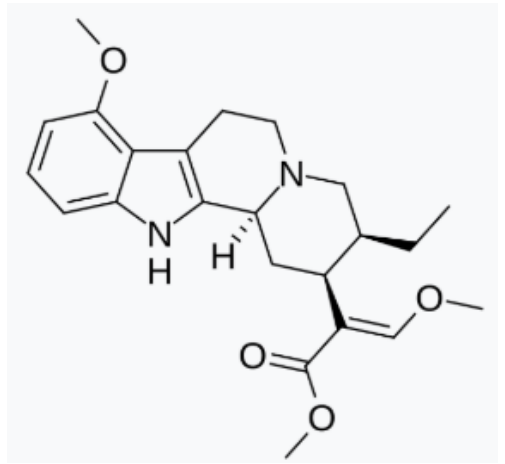
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - Potent opioid agonist found in low levels in kratom*
  - Also a psychoactive metabolite of mitragynine, the major alkaloid in kratom**



7-hydroxymitragynine (7-OH)

Mitragyna speciosa ***



Mitragynine

*Váradi A, Marrone GF, Palmer TC, Narayan A, Szabó MR, Le Rouzic V, Grinnell SG, Subrath JJ, Warner E, Kalra S, Hunkele A, Pagirsky J, Eans SO, Medina JM, Xu J, Pan YX, Borics A, Pasternak GW, McLaughlin JP, Majumdar S. Mitragynine/Corynantheidine Pseudoindoxyls As Opioid Analgesics with Mu Agonism and Delta Antagonism, Which Do Not Recruit β-Arrestin-2. J Med Chem. 2016 Sep 22;59(18):8381-97. doi: 10.1021/acs.jmedchem.6b00748. Epub 2016 Sep 2. PMID: 27556704; PMCID: PMC5344672.

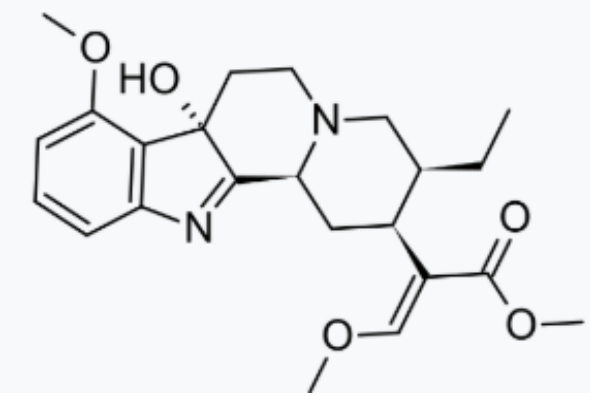
** https://www.fda.gov/files/drugs/published/7-hydroxymitragynin_7-oh_an_assessment_of_the_scientific_data_and_toxicological_concerns_around_an_emerging_opioid_threat.pdf

***https://en.wikipedia.org/wiki/Mitragyna_speciosa

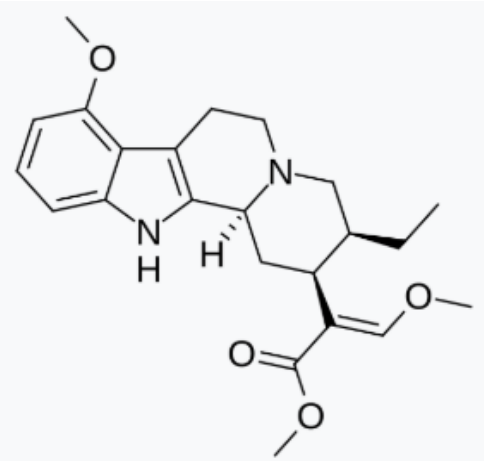
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - July 29th 2025 the FDA provided a recommendation to the DEA to perform scheduling actions to control 7-hydroxymitragynine (7-OH) *
  - July 29th 2025 the FDA published "7-Hydroxymitragynine (7-OH): An Assessment of the Scientific Data and Toxicological Concerns Around an Emerging Opioid Threat**

> The pharmacological profile, abuse liability, and emerging patterns of non-medical use establish 7-OH as a dangerous substance. Current regulatory gaps have enabled widespread availability of these products despite their opioid-like properties and necessitate immediate policy intervention to address this emerging threat to American public health.



7-hydroxymitragynine (7-OH)



Mitragynine

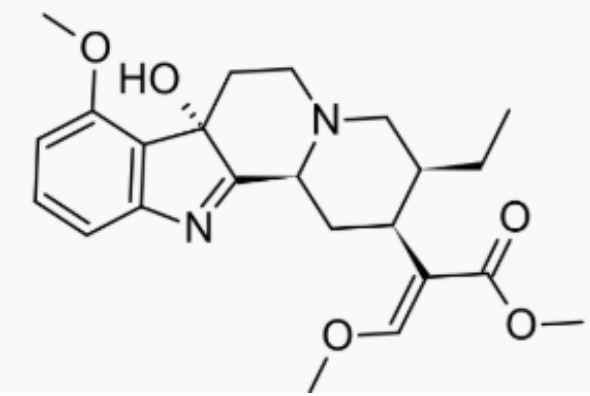
* https://www.fda.gov/news-events/press-announcements/fda-takes-steps-restrict-7-oh-opioid-products-threatening-american-consumers

** https://www.fda.gov/files/drugs/published/7-hydroxymitragynin_7-oh_an_assessment_of_the_scientific_data_and_toxicological_concerns_around_an_emerging_opioid_threat.pdf

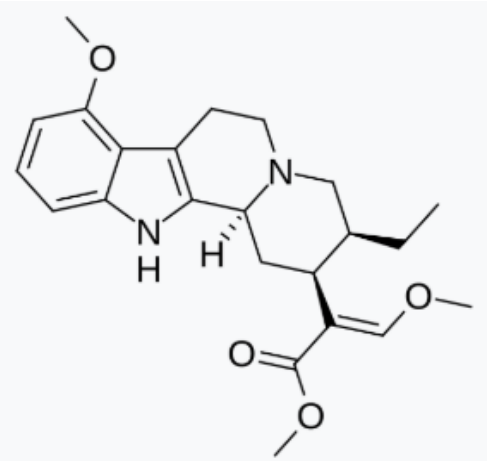
7-Hydroxymitragynine

- 7-OH (aka 7-hydroxymitragynine)
  - Sept 24th 2025 the KDHE Issues Warning on 7-Hydroxymitragynine (7-OH) Products*

"We are urging individuals to avoid using any products containing 7-OH," **Dr. Dereck Totten, KDHE Chief Medical Officer, said**. "It can be extremely harmful, even in small doses. Always consult with your healthcare provider before consuming any new supplements, and if you suspect an adverse reaction or overdose, seek medical attention immediately."



7-hydroxymitragynine (7-OH)



Mitragynine

* https://www.kdhe.ks.gov/m/newsflash/Home/Detail/1704

7-Hydroxymitragynine

- Kansas data from SUDORS (CDC's State Unintentional Drug Overdose Reporting System) obtained from KDHE
- Limitation of data
  - Can be found in multidrug cases
  - “Cause of death” numbers mean that kratom or kratom chemicals are listed on the death certificate

	2020	2021	2022	2023
Kratom Detected	12	11	26	23
Kratom Cause of Death	10	11	25	21
Total Deaths – All Drugs	430	673	739	615

*

* Data courtesy of the Kansas Department of Health and Environment department of Substance Use Disorder & Overdose Prevention

Thank you for your time and consideration!

Patrick R. Porubsky
Laboratory Operations Manager and Forensic Chemist
patrick.porubsky@kbi.ks.gov