



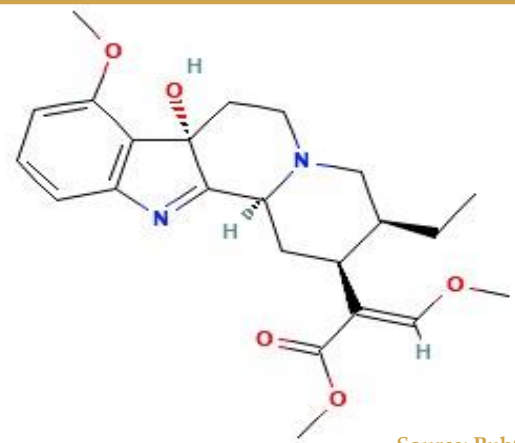
**Objective:** The goal of this, and subsequent bulletins, is to provide information regarding identified changes in drug trends, and/or to educate and forewarn about newly identified substances.

**Subject Matter:** This release provides updated information regarding 7-hydroxymitragynine (7-OH), its current legal status, and emerging analogues of 7-OH which have already begun to be detected in the illegal drug market in the United States (U.S.).

### What 7-OH Is and Its Effects

7-OH is an alkaloid that occurs only at very low levels in natural kratom material; most 7-OH products on the market use concentrated, semi-synthetic, or isolated forms.<sup>[1]</sup>

Recent clinical guidance notes that patients heavily using 7-OH products may meet criteria for both kratom use disorder and opioid use disorder, due to its high  $\mu$ -opioid receptor (MOR) selectivity and potency, with its "comparable efficacy to classical opioids such as oxycodone."<sup>[1][2]</sup>



Source: PubChem

### Documented Health Hazards of 7-OH

**Acute Toxicity and Overdose** - Public health briefings emphasize that 7-OH "sold as a stand-alone, high-potency product" is "associated with greater risk of serious harm, including overdose," compared with typical low-dose kratom use.<sup>[3]</sup> Because 7-OH is an opioid agonist, overdose can present similarly to other opioids (respiratory depression, unresponsiveness); health agencies recommend never mixing 7-OH with alcohol or other drugs and advise that naloxone can reverse 7-OH-related opioid overdoses.<sup>[4]</sup>

**Addiction and Dependence** - State and local health departments caution that both 7-OH and kratom carry a high risk of addiction, especially in people with existing substance use disorders.<sup>[5]</sup>

National Institutes of Health's guidance notes that 7-OH products can drive an opioid-type dependence syndrome separable from traditional kratom use, warranting assessment for opioid use disorder in addition to kratom use disorder.<sup>[2]</sup>

The U.S. military's Operation Supplement Safety program similarly flags significant risks of dependence and adverse health effects from kratom and 7-OH.<sup>[6]</sup>



Source: CRL Inc.

**Recent Scientific Findings** –Public health reviews emphasize that, while many people use low-dose kratom for self-treatment of pain or opioid withdrawal, the emergence of concentrated 7-OH products represents a qualitatively different risk profile, closer to classical opioids than "herbal teas."<sup>[1]</sup>



### Emerging Use Patterns and Market Concerns

Research groups and public health networks report a rise in novel semi-synthetic 7-OH formulations (vapes, "shots," and high-strength capsules) marketed misleadingly as "kratom" but containing unnaturally high 7-OH levels far above what occurs naturally in the plant.<sup>[1]</sup> Food and Drug Administration (FDA) and state regulators are especially concerned about flavored 7-OH products (fruit gummies, ice cream-like items) that appeal to youth and are also sometimes poorly labeled or disguised as regular kratom.<sup>[7]</sup>



Source: CRL Inc.

Products containing 7-OH present a significant consumer accessibility concern due to their varied pricing structures across different product categories. Market analysis reveals that 7-OH products range from relatively inexpensive options to premium formulations, with this price diversity enabling broader demographic access than traditionally observed with similar compounds.<sup>[1]</sup>

Based on open-source searches, basic 7-OH tablets commonly contain 10mg to 80mg per tablet. Single tablets and small packs of tablets (3 to 6 count) typically cost \$15-35, which breaks down to approximately \$5-11 per tablet. Bottles of tablets (10 to 30 count) usually range from \$60-\$110, effectively lowering the per-tablet cost to roughly \$4-6. Gummies and edibles infused with 7-OH on average contain 15mg to 36mg of 7-OH per piece. A bag of gummies (2 to 12 count) generally retails from \$12-35. The last readily available form of 7-OH, liquid extract shots, usually come in 10ml to 15ml bottles and generally cost between \$15-20 per shot.

This pricing accessibility, combined with limited regulatory oversight in many jurisdictions, creates a marketplace dynamic where consumer education and awareness become critical factors in preventing adverse outcomes, highlighting the need for comprehensive product labeling, dosage guidelines, and public health and enforcement initiatives to address the risks associated with widespread 7-OH product availability.<sup>[1]</sup>

Additionally, employers face ongoing challenges with workplace testing and safety protocols due to the largely unregulated nature of kratom and 7-OH, thereby creating potential safety hazards and reduced productivity. Traditional drug tests often fail to detect kratom and 7-OH, complicating the implementation and enforcement of workplace safety initiatives.<sup>[8]</sup>



## Current Legal and Regulatory Status

**Federal U.S. Level** - The U.S. FDA has explicitly distinguished concentrated 7-OH products from natural kratom leaf and is targeting 7-OH products as illegal opioids. On July 29, 2025, FDA recommended that certain concentrated 7-OH products be placed into Schedule I under the federal Controlled Substances Act, citing high abuse potential and no accepted medical use.<sup>[7]</sup>

The FDA has issued warning letters and taken enforcement actions (including seizures) against companies marketing 7-OH in capsules, powders, gummies, beverages, and other forms promoted for pain, energy, or relaxation.<sup>[7][9]</sup> The FDA's broader kratom policy states that kratom is not legally marketed as a dietary supplement or food additive, and the agency continues to warn of risks such as "liver toxicity, seizures, and substance use disorder" with kratom products overall.<sup>[10]</sup>

**Kansas Senator Marshall's Efforts to Emergency Schedule 7-OH** – United States Senator Roger Marshall sent a letter to Drug Enforcement Administration (DEA) Administrator Terrence Cole on Tuesday, October 28, 2025, requesting emergency scheduling of 7-OH and related products as Schedule I controlled substances.<sup>[11]</sup> Following his October letter, Senator Marshall sent a follow-up communication emphasizing that the FDA had already taken decisive steps. Senator Marshall noted that late in 2025, the Department of Justice and FDA seized thousands of 7-OH product units from warehouses around Kansas City.<sup>[12]</sup>



Alongside Senator Marshall's appeals to the DEA, there have been federal legislative efforts to classify synthetic 7-OH as a Schedule I substance. On March 19, 2026, lawmakers introduced "H.R.8000: END 7-OH Act" to bypass standard administrative delays to "schedule synthetic 7-OH as a Schedule I controlled substance."<sup>[13]</sup>



State specific legal status of Kratom and 7-OH/Synthetic 7-OH - Below is the most up-to-date picture (as of May 2026) for kratom and especially 7-OH in Iowa, Kansas, Missouri, Nebraska, North Dakota, and South Dakota.

State	Kratom Legal Status	7-OH / Synthetic 7-OH Status	Key Points
Iowa	Legal, but active bill to ban	Would be Schedule I if HF 2133 (or similar) passes, currently legal	House has passed a ban, Senate decision pending. <sup>[14]</sup>
Kansas	Kratom still present but restrictions tightening	7-OH kratom-related substances are Schedule I and banned statewide.	Synthetic/concentrated 7-OH illegal statewide. <sup>[15]</sup>
Missouri	Generally legal; local restrictions	Synthetic 7-OH banned in Kansas City; state attorney general suing over 7-OH products, additional statewide legislative and regulatory actions have been proposed.	In Kansas City, MO, 7-OH is banned, kratom is 21+ and stores selling it must be licensed. <sup>[16][17]</sup>
Nebraska	Legal, but regulated under Kratom Consumer Protection Act	High-concentration 7-OH treated as adulterated and illegal; potency caps in law.	Only compliant, registered products with limited 7-OH allowed. <sup>[18][19]</sup>
North Dakota	Legal and largely unregulated	7-OH legal; proposed 2% cap and Schedule I attempt have not passed.	No current potency caps or scheduling, but bills to do so continue to be proposed. <sup>[20][21]</sup>
South Dakota	Legal with restrictions (21+. Labeling rules/alkaloid limits)	Natural 7-OH legal; artificial/high-potency 7-OH restricted; complete ban bill failed.	"Supercharged" 7-OH products restricted, no full ban (for now). <sup>[22][23]</sup>

**Emerging Analogue of 7-OH – Dihydro-7-hydroxymitragynine (MGM-15)**

MGM-15 (dihydro-7-hydroxymitragynine) is a semi-synthetic, more potent and somewhat longer-acting opioid-like analogue of 7-OH, and it has already appeared as a designer drug in tablet form in the U.S. and Europe.<sup>[24][1]</sup> Authorities emphasize that MGM-15 carries classical opioid liabilities, with some evidence that the risk may be higher because products can be very concentrated and users underestimate potency. Reported or expected adverse effects include respiratory depression and overdose, classic opioid side effects, dependence and withdrawal, and unknown long-term toxicity.<sup>[1]</sup>

Available evidence shows that MGM-15 is present in a growing but still relatively small segment of the gray/illicit market, mainly online and specialty retail, rather than being a widespread street opioid like fentanyl.<sup>[1]</sup> Data on total user numbers or exact market share are not yet available but increasing poison-center calls related broadly to kratom derivatives and the appearance of MGM-15 in commercial tablets have prompted scheduling moves and public-health warnings.<sup>[1][25]</sup>





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