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Maryland Senate Finance Committee
Hearing on SB820: Unauthorized Consumable Products - Enforcement and Seizure

Dear Chair Beidle, Vice Chair Hayes, and members of the committee:

On behalf of Reason Foundation, thank you for the opportunity to offer testimony on Senate Bill 820. Reason Foundation is a 501(c)(3) nonprofit think tank dedicated to advocating for policy solutions that enhance public health, foster dynamic markets that offer economic opportunity, and ensure consumer access to safe, regulated products.

We understand the committee's concern regarding the public health risks associated with certain high-potency kratom extracts, fully synthetic alkaloids, and poorly regulated manufacturing practices. However, outlawing products with a 7-OH concentration above two percent of total alkaloids goes beyond what is necessary to protect public health and safety. The specific two percent limit for 7-OH is an arbitrary threshold, not a scientifically validated safety standard. Moreover, it has the effect, if not the intention, of eliminating one class of kratom products.

While setting a reasonable, evidence-informed upper limit on the potency of 7-OH or other concentrated products may be sound policy, that limit must be grounded in toxicological data and consumer need. It should establish the maximum amount a person can safely consume in a single serving. Instead, the one percent limit only tells consumers that the product is more concentrated than kratom leaf. Blanket bans of kratom or its derivatives—including 7-hydroxymitragynine (7-OH), mitragynine pseudoindoxyl, and related alkaloids—would be a disproportionate response that would ultimately displace consumers into unregulated illicit markets, impede emerging therapeutic research, and risk worsening the opioid crisis. We urge the committee instead to adopt a targeted regulatory framework that addresses the specific harms identified while preserving adult access to regulated kratom-derived products.

States across the country are advancing legislation that reflects a growing preference to regulate kratom products rather than ban them. Multiple states have adopted versions of the Kratom Consumer Protection Act (KPCA), which imposes targeted regulatory requirements, including age restrictions, product testing, alkaloid concentration limits, and labeling standards.[1] These frameworks are designed to address the harms associated with contaminated, spiked, and adulterated products without criminalizing consumers or eliminating the legal market, actions that would push consumers toward illicit and potentially more dangerous products.

[1] See, e.g., Tennessee House Bill 1414 (2022), codified at Tenn. Code Ann. § 39-17-452 (age restrictions, testing, and labeling requirements for kratom products); Nevada's kratom statutes, including 2019 Kratom Consumer Protection Act provisions and later amendments such as AB 322 (2023) (registration, labeling, and enforcement authority for kratom products).

Legislatures are choosing regulation over prohibition for several key reasons:

- **The evidence does not support Schedule I placement:** Schedule I is the most restrictive classification, reserved for substances with a high potential for abuse and no accepted medical use. Under the federal Controlled Substances Act, before placing a substance on Schedule I, the scheduling authority must evaluate eight statutory factors—including abuse potential, scientific evidence of pharmacological effects, the history and scope of abuse, risk to public health, and dependence liability.[2] Many states have modeled their scheduling criteria on this federal framework or rely on federal scheduling decisions.[3] A peer-reviewed eight-factor analysis published in *Psychopharmacology* advised against scheduling of kratom or any of its specific alkaloids under the CSA because it does not share the high abuse potential or safety risks of "prototypic morphine-like opioids," and banning kratom products would put users using kratom to abstain from opioids "at risk of resuming opioid use and overdose."[4] The World Health Organization's 44th Expert Committee on Drug Dependence found insufficient evidence even to recommend a critical review for international control of kratom, mitragynine.[5]
- **Kratom-associated death data are misleading:** A review of 156 kratom-associated deaths found that other drugs were present in 87% of cases with available toxicology data, with opioids being the most frequently co-occurring substance.[6] State-level reports consistently show that the vast majority of kratom-positive deaths involve polydrug use, substantially limiting the ability to attribute causation to kratom extracts alone. Serious adverse events remain rare, particularly when compared to the regular use of kratom by as many as 10-15 million U.S. consumers each year [7]
- **Prohibition risks worsening the opioid crisis:** Surveys of U.S. kratom consumers consistently show that the primary motivations for use are self-treatment of pain and reduction of opioid dependence. In a survey of 8,049 users, 68% reported using kratom for pain and 29% reported using it to reduce opioid dependence or withdrawal.[8] A separate survey of 2,798 users found that 41% use kratom specifically to stop or reduce opioid use—of whom over 90% reported it was helpful.[9] Banning kratom derivatives risks pushing some of these consumers back toward more dangerous substances, with the potential to increase overdose mortality.
- **Contamination harms reflect regulatory gaps, not pharmacology:** The harms most frequently cited by scheduling proponents—heavy metal contamination, salmonella outbreaks, misleading or false labeling—are classic consequences of an inadequately regulated market rather than inherent properties of kratom alkaloids. A recent comprehensive toxicology review concluded that "poorly regulated kratom products" are the

[2] 21 U.S.C. § 811 (Authority and criteria for classification of substances).
[3] Joanna R. Lampe, "The Controlled Substances Act (CSA): A Legal Overview for the 119th Congress," Congressional Research Service, R45948, January 22, 2025, www.everycrsreport.com/reports/R45948.html
[4] Jack Henningfield et al., "The abuse potential of kratom according to 8 factors of the Controlled Substances Act: implications for regulation and research," Psychopharmacology (Berl), 2018. https://pmc.ncbi.nlm.nih.gov/articles/PMC5813050/
[5] World Health Organization, "44th WHO ECDD Summary assessments, findings and recommendations," October 2021. https://cdn.who.int/media/docs/default-source/controlled-substances/44ecdd_unsg_annex1.pdf
[6] John M. Corkery et al., "Characteristics of Deaths Associated with Kratom Use," Journal of Psychopharmacology 33, no. 9 (2019): 1102–1123; D. Papsun et al., "Kratom Use, Plasma Mitragynine Concentrations, and Unintentional Deaths," Journal of Analytical Toxicology 43, no. 8 (2019): 589–595.
[7] O. Grundmann et al., "Commentary: Presence of Kratom in Opioid Overdose Deaths," Frontiers in Psychiatry 15 (2024): 1411964 (estimating as many as 15 million U.S. adult kratom consumers depending on the source).
[8] O. Grundmann, "Patterns of Kratom Use and Health Impact in the U.S.—Results from an Online Survey," Drug and Alcohol Dependence 176 (2017): 63–70.
[9] Albert Garcia-Romeu et al., "Kratom (Mitragyna speciosa): User Demographics, Use Patterns, and Implications for the Opioid Epidemic," Drug and Alcohol Dependence 208 (2020): 107849

key source of contamination and recommended mitigation through good manufacturing practices and product testing rather than prohibition.[10]

Emerging Therapeutic Potential

Emerging preclinical and early clinical evidence suggests therapeutic potential of kratom alkaloids for pain management, mood disorders, and opioid cessation. Phase 1 clinical trial data indicate that mitragynine at oral doses up to 40 mg was generally well-tolerated and did not produce clinically significant respiratory depression—the primary mechanism of opioid overdose death.[11] Pharmacokinetic studies report approximately linear kinetics and an elimination half-life compatible with predictable dosing, with no serious toxicity observed at the dose ranges studied.[12] Preclinical and clinical literature reports analgesic, anti-inflammatory, anxiolytic, and opioid withdrawal relief effects of mitragynine and related alkaloids and generally notes fewer respiratory-depression concerns than with classical opioids at comparable analgesic levels.

Dependence and withdrawal have been reported, but these phenomena also occur with caffeine, many antidepressants, alcohol, and many other unscheduled substances. These factors are not, by themselves, sufficient to establish a "high potential for abuse" warranting the most restrictive scheduling classification.

A Regulatory Framework Provides Safety without Criminalization

Rather than a blanket ban, we recommend the committee pursue a comprehensive regulatory framework for kratom derivatives and extracts that directly addresses the identified harms:

- **Adult-only access** with ID verification at point of sale and for online purchases, with civil penalties for noncompliance.
- **Potency and formulation limits** setting evidence-informed maximum per-serving concentrations of 7-OH and other derivatives in extract products, with clear labeling of alkaloid content and safe consumption amounts.
- **Product testing and quality standards** requiring manufacture under current good manufacturing practices (cGMP) and third-party lab testing for heavy metals, microbial contamination, and active alkaloid content.
- **Marketing restrictions** prohibiting clearly unsubstantiated disease-treatment claims and youth-oriented branding, with standardized warnings regarding dependence, withdrawal, and polydrug interaction risks.
- **Enforcement authority** empowering the board to mandate recalls, issue public safety notices, and impose civil penalties or license actions for noncompliant products.

Conclusion

The regulation of kratom derivatives is a rapidly evolving policy area, and states retain the authority to design frameworks that balance consumer access, public health, and industry accountability. A prohibition approach risks increasing opioid overdose mortality by eliminating a relatively less dangerous alternative for consumers who might otherwise turn to illicit opioids. A tightly regulated, adult-use framework—with sensible potency limits, testing requirements,

[10] Jack Henningfield et al., "Kratom Safety and Toxicology in the Public Health Context," Frontiers in Pharmacology, 2023. https://pmc.ncbi.nlm.nih.gov/articles/PMC11180979/

[11] Marilyn Huestis et al., "Human Mitragynine and 7-Hydroxymitragynine Pharmacokinetics after Single and Multiple Daily Doses of Oral Encapsulated Dried Kratom Leaf Powder," Molecules, February 2024.

[12] Satariya Trakulsrichai et al., "Pharmacokinetics of Mitragynine in Man," Drug Design, Development & Therapy, April 2015. https://pmc.ncbi.nlm.nih.gov/articles/PMC4425236/

labeling standards, and enforcement authority—directly targets the harms that have been identified without the collateral damage of criminalization.

Embracing targeted regulation would place Maryland at the forefront of evidence-informed kratom policy, avoiding the extremes of prohibition or unregulated use and instead offering a pragmatic, public-health focused pathway to consumer safety.

Thank you for your time and consideration.

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