7-OH, The Latest Drug of Abuse at Gas Stations Across the US

By David J. Kuntz, PhD
CRL Executive Director of Analytical Toxicology

Background

The latest drug associated with the opioid crisis is the OTC drug 7-OH, which is sold in gas stations, convenience stores, and vape shops. It is a powerful psychoactive chemical found in the tree leaves from Mitragynia speciosa, found in Southeast Asia. The parent drug, Kratom, is known as the crude plant leaf ground into a powder and ingested as a powder or liquid. The 7-OH is the powerful psychoactive metabolite of the Kratom parent drug, mitragynine. Chemists have isolated and chemically produced 7-hydroxymitragynine or 7-OH, with an opioid-like effect when ingested. It is reported to be 50-fold more potent than morphine and is being promoted for pain relief, treatment of depression, or just to get a high. Other names for Kratom, or 7-OH, found in stores are 7-Hydroxy, 7-OHMG, 7-HMG, or 7.

Availability

Kratom has been available in the United States for years, and several states have banned the sale of Kratom due to addictive properties. The potential for addiction when using 7-OH is significant, but none the less, it is included in energy drinks, tablets, gummies, drink mixes, etc., and it is easily available to adolescents and adults.

Adverse Effects

Addiction is common using 7-OH in high doses and causes sweating, agitation, nausea, vomiting, rapid heart rate, confusion, loss of consciousness, and seizures. These side effects are like those of opioids.

Government Intervention

The passage of legislation to control the distribution of Kratom/7-OH has been a state responsibility. However, in July 2025, HHS recommended placing only 7-OH into the Controlled Substances Act by the DEA. Thus far, there has not been an announcement by the DEA if this has happened.

Prevalence in Workplace Drug Testing

The sale of Kratom and 7-OH is widespread and easily obtainable. CRL has been testing for Kratom for years, but largely for professionals in treatment programs. To challenge the prevalence in the workplace population, CRL tested 1,000 non-regulated samples (all de-identified) for the presence of the parent drug mitragynine and metabolite, 7-OH. Testing found 1% of the samples had levels greater than the cutoff of 10 ng/mL. This included pre-employment and random samples. In looking further at other drugs that these donors had ingested, three individuals were taking prescription drugs that would most likely prove consistent with their medication history and therefore reported as negative by the MRO. Five positive samples were pre-employment, and the remaining were Random or "Other". For the employer, all donors who tested positive for Kratom/7-OH in our study would be allowed in safety-sensitive jobs, and perhaps due to sedation from 7-OH, prone to accidents.

Testing for Kratom and 7-OH is not a normal part of a drug panel. More than a decade ago, the synthetic marijuana compounds known as Spice or K2 became a common drug of abuse due to the lack of testing. Kratom/7-OH poses as the next major drug of impairment for workers on the job.

The Next Step

To find out more about testing, please contact your CRL Account Representative.