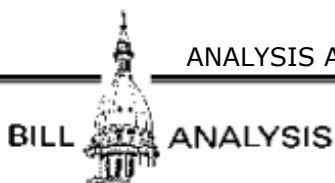




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Senate Bill 1373 (as reported without amendment)  
Sponsor: Senator Mike Nofs  
Committee: Judiciary

Date Completed: 7-6-10

### **RATIONALE**

Consistent with Federal law, the Michigan Public Health Code classifies controlled substances under five schedules. A Schedule 1 controlled substance is a substance that has high potential for abuse and has no accepted medical use in treatment in the United States or lacks accepted safety for use in treatment under medical supervision. Marihuana is a Schedule 1 controlled substance under both Federal and Michigan law. A number of health care professionals and agencies, as well as law enforcement officials, have raised concerns about the increasingly popular use of synthetic substances that mimic THC, the main active chemical compound found in marihuana. These substances, which generally are not included in the controlled substances schedules, reportedly can cause adverse effects in humans. It has been suggested that synthetic cannabinoids be included in the list of Schedule 1 controlled substances under Michigan law and that penalties for possession or use of marihuana should apply to possession or use of this so-called fake weed.

### **CONTENT**

**The bill would amend the Public Health Code to include certain synthetic cannabinoids in the list of Schedule 1 controlled substances, and to extend the penalties for possession and use of marihuana to the possession and use of the synthetic cannabinoids.**

Under the Code, marihuana is a Schedule 1 controlled substance. The bill would include each of the following, all of which are synthetic cannabinoids, in Schedule 1:

- (6aR,10aR)-9-(hydroxymethyl)-6,6-dimethyl-3-(2-methyloctan-2-yl)-6a,7,10,10a-tetrahydrobenzo[c]chromen-1-ol (which is also known as HU-210).
- 2-[1R,3S)-3-hydroxycyclohexyl]-5-(2-methyloctan-2-yl)phenol (which is also known as CP47,497) and its side chain homologues.
- 1-Pentyl-3-(1-naphthoyl)indole (which is also known as JWH-018).
- 1-Butyl-3-(1-naphthoyl)indole (which is also known as JWH-073).

Under the Code, a person may not use or knowingly or intentionally possess a controlled substance or controlled substance analogue unless it was obtained directly from, or pursuant to, a valid prescription or order of a practitioner while acting in the course of his or her professional practice. A violation involving marihuana use is a misdemeanor punishable by up to 90 days' imprisonment, a maximum fine of \$100, or both. A violation involving marihuana possession is a misdemeanor punishable by up to one year's imprisonment, a maximum fine of \$2,000, or both. The bill would include use and possession of the substances described above in those penalties.

MCL 333.7212 et al.

### **BACKGROUND**

The website of the U.S. Department of Justice Drug Enforcement Administration's (DEA's) Office of Diversion Control contains the following information.

HU-210 is structurally and pharmacologically similar to THC, the main active ingredient of marijuana. It is used in basic scientific research to identify cannabinoid receptors in the brain and study the mechanisms of action of THC (tetrahydrocannabinol). It is a Schedule 1 controlled substance in the U.S.

CP47,497, JWH-018, and JWH-073 are synthetic cannabinoid agonists without the classical cannabinoid chemical structure. The compounds are used in scientific research as a tool to study the cannabinoid system. Although they are likely to have effects similar to those of THC in humans, CP47,497 and its homologues, JWH-018, and JWH-073, are not controlled substances in the U.S.

## **ARGUMENTS**

*(Please note: The arguments contained in this analysis originate from sources outside the Senate Fiscal Agency. The Senate Fiscal Agency neither supports nor opposes legislation.)*

### **Supporting Argument**

Synthetic cannabinoid compounds were developed in laboratories in order to study the effects of cannabis on the brain. These compounds were never intended for human consumption and, unlike marijuana, evidently cannot be detected in the body through drug tests. According to the DEA Office of Diversion Control website, behavioral studies have shown that synthetic cannabinoids have THC-like effects in animals. In mice, they decrease overall activity, produce analgesia, decrease body temperature, and produce catalepsy. These effects are used by scientists to predict likelihood of THC-like psychoactivity in humans. Some studies have found the subjective effects of HU-210 to be as much as 66 to 80 times more active than those of THC in some animals.

In recent years, herbal mixtures or potpourri sprayed with the synthetic cannabinoid compounds, and known as "K2", "Spice", or "Spice Gold", have been marketed over the internet as a legal alternative to marijuana. According to an article posted on the "Live Science" website in March 2010, a St. Louis toxicology professor had seen nearly 30 cases of the adverse effects of smoking the synthetic marijuana in the previous month ("Fake Weed, Real Drug: K2 Causing Hallucinations in Teens"). While the synthetic cannabinoid compounds

apparently work on the brain in the same manner as THC, some patients had symptoms that do not match up with marijuana use, such as increased agitation and elevated blood pressure and heart rates. Another article, posted on "The Medical News" website in March 2010, said that those symptoms suggest that K2 affects the cardiovascular system and "also is believed to affect the central nervous system, causing severe, potentially life-threatening hallucinations and, in some cases, seizures" ("Toxins in K2: Saint Louis University professor warns parents to look out for warning signs").

Given the pharmacological similarities to marijuana, the results of lab research on animals, and the severe cardiovascular and neurological symptoms observed in users of synthetic cannabinoids, those substances should be banned. By including the synthetic cannabinoids in Schedule 1, and penalizing their use and possession in the same manner as marijuana, the bill would acknowledge the danger of the products known variously as K2, Spice, and Spice Gold and protect the health of potential users. It also would help law enforcement to respond to the growing trafficking of those fake marijuana products and should reduce their availability.

**Response:** In addition to the synthetic cannabinoids listed in the bill, Salvia Divinorum and BZP should be included in Schedule 1. According to the National Conference of State Legislatures website, at least 21 states have passed laws regulating Salvia Divinorum, or Salvia, since 2006. Salvia is an herb that is related to mint and has psychoactive effects. Apparently, it originally became popular as a legal alternative to marijuana, but has markedly different effects, including visual hallucinations, dysphoria, the sensation of multiple realities, and the loss of physical coordination. Studies have shown Salvia to increase dopamine levels in the brain, meaning it potentially can be addictive. While no Federal statutes control or regulate Salvia, laws in various states range from prohibiting its possession by or sale to minors, to banning it outright. Some states have classified it as a Schedule 1 controlled substance.

According to the website for the U.S. Department of Justice's National Drug Intelligence Center (NDIC), BZP is a

common name for a synthetic drug that acts as a stimulant, producing euphoria and cardiovascular effects. It is often sold as Ecstasy or promoted as an alternative to Ecstasy (which was added to Michigan's list of Schedule 1 controlled substances in 2002). Risks associated with BZP are similar to those associated with amphetamine abuse. Stimulants, like BZP and amphetamines, decrease appetite, dilate pupils, and increase blood pressure and heart and respiration rates. Other effects can include anxiety, blurred vision, dizziness, and insomnia. Chronic abuse of stimulants can cause irregular heartbeat and can lead to delusions, hallucinations, and paranoia. According to the NDIC, BZP is illegal, as the DEA designated it a Schedule 1 substance in March 2004.

Legislative Analyst: Patrick Affholter

### **FISCAL IMPACT**

The bill would have an indeterminate fiscal impact on State and local government. There are no data to indicate how many offenders would be convicted of misdemeanor offenses due to the classification of these additional compounds as controlled substances. Local governments would incur the costs of incarceration in local facilities, which vary by county. Any additional penal fine revenue collected under the bill would benefit public libraries.

Fiscal Analyst: Matthew Grabowski

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This analysis was prepared by nonpartisan Senate staff for use by the Senate in its deliberations and does not constitute an official statement of legislative intent.