

Special Documents

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Cannabinoids (Marijuana)**
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Request for Public Comment on Synthetic Cannabinoids (Marijuana)

Background

Synthetic Cannabinoids went on sale in the early 2000s, and were sold under the brand name “Spice.” Since then, the term “Spice” has been used to describe any herbal product that contains Synthetic Cannabinoids. Synthetic Cannabinoids are sold under many names including K2, Yucatan Fire, Skunk, Moon Rocks and others. Synthetic Cannabinoids are sold in hookah bars, head shops, and on the internet. They are sold as herbal incense and “not for human consumption.” On March 1, 2011 the DEA placed 5 Synthetic Cannabinoids on Schedule I (JWH-018, JWH-073, JWH-200, CP-47,497, and cannabicyclohexanol). As of October 24, 2011, at least 40 states have banned one or more Synthetic Cannabinoids.

The most common route of administration of Synthetic Cannabinoids is by smoking. When smoked it has been reported by some users to have effects similar to those of marijuana. “Spice” and other “herbal” products are often referred to as “legal highs” or “herbal highs”, in reference to their legal status and purported natural herbal make-up. The term “herbal high” is a misnomer because the Synthetic Cannabinoids are chemicals that are sprayed on herbs. They are also not detectable on urine toxicology screens.

The US Naval Academy launched an investigation into the use of Synthetic Cannabinoids by midshipmen that has resulted in a number of midshipmen being expelled. The use of Synthetic Cannabinoids came to light after a midshipman who had smoked Synthetic Cannabinoids experienced seizures in December 2010. In June 2011, there was an undercover operation in Hagerstown that identified the sale of Synthetic Cannabinoids. When the samples were tested, the products contained Synthetic Cannabinoids that were not banned by the DEA. The products were Black Mamba –substance identified AM-2201, Black Widow - substance identified JWH-122, K-6 Standard- substances identified

JWH-019 & JWH 122, K-6 Summit- substances identified JWH-019 & JWH 122, Dragon Eye Red- substance identified AM-2201, and Dragon Eye Blue- substance identified AM-2201. Ocean City banned the sale, possession and manufacturing Synthetic Cannabinoids in August 2011. In the fall of 2011, a student at a Maryland High School experienced a severe reaction after using “Mr Nice Guy.” The sample as tested and found to contain AM 2201 and JWH 122.

Chemistry and Pharmacology

Synthetic Cannabinoids are functionally similar to delta-9 tetrahydrocannabinol (THC). Synthetic Cannabinoids can be classified into eight general groups based on the type of chemical substitution made to alter the original substance. All of the Synthetic Cannabinoids have agonist effects on the CB1 receptors, and some of these chemicals work on both CB1 and CB2 receptors. There is a range of potency of the Synthetic Cannabinoids with at least one being over a hundred times more potent than delta-9 THC. There is little information about the pharmacology and toxicology of many of the Synthetic Cannabinoids.

It is the CB1 stimulation that provides the psychotropic effects. CB1 receptors are primarily located at the central and peripheral nerve terminals. The agonist activity on the CB1 receptor is responsible for elevating mood or triggering emotions such as anxiety and panic. It also affects memory, sense of time, and auditory and visual cognition. Antinociception, hypothermia, and hypomobility can also be triggered by CB1 activation.

Poison Control Data

On October 28, 2011 the Maryland Poison Center reported that there were 146 cases of "THC homolog" exposures that were reported so far in 2011. Of these, two were part of the mix of agents involved in a suspected suicide. The rest were from individuals intentionally trying to get high. There were four cases under the age of 12. There were 76 cases in the age group 12 – 19 years; 54 cases in the age group 20 – 29 years; 9 exposures occurred in victims in their 30's and 40s. The outcomes were: 12 with minimal clinical effects, 74 with minor effects, 47 with effects (meaning, bothersome or persistent symptoms, but no symptoms that were life threatening and required emergent intervention such as intubation or use of pressors). 11 cases were unable to be followed or were unrelated. There have been no reported deaths from Synthetic Cannabinoids in Maryland, and no reports of Synthetic Cannabinoids deaths were found in other states.

Request for Public Comment

In order to more fully assess the extent of Synthetic Cannabinoid abuse and associated health consequences in Maryland, the Department of Health and Mental Hygiene (DHMH) is asking the public for comments. These comments will assist DHMH with determining next steps.

There are various approaches available to DHMH in response to the introduction of Synthetic Cannabinoids in Maryland. These alternatives include monitoring

the prevalence and impact of Synthetic Cannabinoids, and a determination by the Secretary to add the active compounds in Synthetic Cannabinoids to Schedule I Controlled Dangerous Substances. Such a determination, pursuant to section 5-202(b) of the Criminal Law Article of the Maryland Annotated Code, would render the possession, manufacture, distribution and sale of these compounds unlawful. In determining a course of action with regard to Synthetic Cannabinoids in Maryland, DHMH is requesting public comment on various aspects of the use and impact of Synthetic Cannabinoids.

DHMH is seeking input from the public on the following issues:

- (1) the actual or relative potential for abuse of Synthetic Cannabinoids;
- (2) if known, scientific evidence of the pharmacological effect of the Synthetic Cannabinoids;
- (3) the state of current scientific knowledge regarding the Synthetic Cannabinoids;
- (4) the history and current pattern of abuse of Synthetic Cannabinoids;
- (5) the scope, duration, and significance of abuse of the Synthetic Cannabinoids;
- (6) any risk that Synthetic Cannabinoids pose to the public health;
- (7) the ability of Synthetic Cannabinoids to cause psychological or physiological dependence; and
- (8) whether Synthetic Cannabinoids are an immediate precursor of a controlled dangerous substance.

In addition, DHMH is seeking comment on this policy question:

- (9) Is the current legal framework, requiring listing of specific chemicals, appropriate for Synthetic Cannabinoids (which have multiple variants)? If not, what type of legal authority would be appropriate?

Based on the comments received, as well as the information available from other public sources noted above, DHMH will determine and make public its response to the introduction of these substances into Maryland. Please submit comments by January 6, 2012. Comments may be submitted by mail to Michele Phinney, Director, DHMH Office of Regulation and Policy Coordination, 201 W. Preston Street, Room 512, Baltimore, Md. 21201; or by email to regs@dhmh.state.md.us; or by fax to 410-767-6483. Individuals may also call 410-767-6499, TTY: 800-735-2258.

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