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Authors:	Kriesel
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Analyst:	Jeff Diebel

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This bill establishes criminal penalties for the sale and possession of synthetic marijuana. A person who sells synthetic marijuana is guilty of a gross misdemeanor, which is punishable by up to a year in jail and/or a fine of up to \$3,000. A person who possesses synthetic marijuana is guilty of a misdemeanor, which is punishable by up to 90 days in jail and/or a fine of up to \$1,000. Section 2 of the bill makes it a violation of the DWI Chapter (169A) to operate a vehicle while under the influence of synthetic marijuana.

The bill defines the term "synthetic cannabinoids." Synthetic cannabinoids which are functionally similar to the active component of cannabis -- THC -- have been found in the product "K2." Synthetic cannabinoids bind to the same cannabinoid receptors in the brain and other organs as THC.

## **Additional Background**

Scientists developed synthetic cannabinoids for use as therapeutic agents. They have been around for about 40 years. As with many drugs, it has proven difficult to separate the desired therapeutic effects from unwanted psychoactive effects. In the latter half of 2008, law enforcement agents across the country learned that herbal smoking mixtures - also known as incense and room odorizers - contained synthetic cannabinoids. These products are sold under the brands Spice Gold, Spice Silver, and Yucatan Fire. Although these products do not contain tobacco or cannabis, they do produce cannabis-like effects when smoked. Consumers typically purchase these products over the Internet or in head shops.

In a pure state, synthetic cannabinoids are either solids or oils. The smoking mixtures are typically sold in metal foil containers, usually containing about three grams of dried vegetable matter mixed with the cannabinoid synthetics, presumably using some sort of spray.

Some of the products contain large amounts of Vitamin E and other ingredients that are intended to avoid forensic-chemical detection.

Synthetic cannabinoids mimic the effects of THC in many ways. Studies have shown that some of the synthetic compounds bind more strongly to the relevant brain receptors than THC. However, little is known about the pharmacology and toxicology of the synthetic cannabinoids. Few human studies have been published. It has been suggested apart from their higher potency, some of these chemicals have longer half-lives which could lead to a prolonged psychoactive effect.