

Synthetic Drugs: An Emerging Threat

Presenters:

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Synthetic Drugs

- The dangers and effects
- Legislation
- Synthetic cathinones (“bath salts”)
- Synthetic cannabinoids (“synthetic marijuana”)

The Problem(?)(!)

- “If these drugs are that bad, why are they being sold in stores?”

Dangers / Side Effects

- Hallucinations
- Paranoia
- Violent behavior

Legislation

- Early 2010:
- Tennessee’s experience (not unique)
 - Law enforcement first started hearing about “Synthetic cocaine”
 - Not actually cocaine, but Mephedrone (MDPV, Methyone)
 - At that time, very little was known

Legislation

- As of early 2010:
 - Illegal or considered a controlled substance in several European countries
 - Illegal in only one state at that time

Legislation (Tennessee)

- 2010
 - July – presentation made to the Tennessee Department of Mental Health and Developmental Disabilities in an effort to schedule (control) the sale and distribution of the product
 - Again – very little was known at that time about Mephedrone (bath salts, plant food)

Legislation (Tennessee)

- 2011
 - Tennessee General Assembly passed two bills (one addressing the synthetic cannabinoids and one addressing the synthetic cathinones)

Legislation

- Currently:
 - Almost every state has regulated, controlled, or criminalized these drugs or has legislation pending
- National Alliance for Model State Drug Laws (www.namsdl.org)

Legislation

- March 1, 2011:
 - DEA issues an emergency order controlling five synthetic cannabinoids
 - JWH-018
 - JWH-073
 - JWH-200
 - CP 47,497
 - Cannabicyclohexanol

Legislation

- October 21, 2011:
 - DEA issues an emergency order controlling three synthetic cathinones
 - Mephedrone
 - 3,4 methylenedioxypropylvalerone (MDPV)
 - Methyone

History

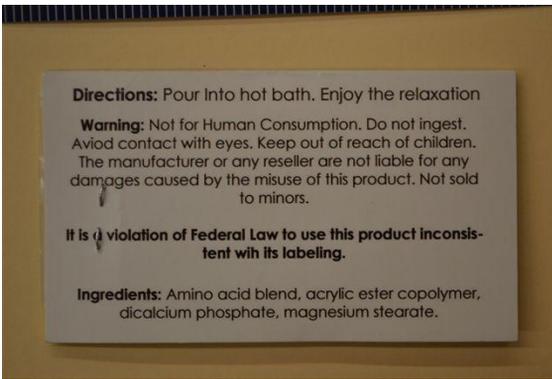
- August 2011
 - Multiple long time drug users call in to a live television call in show recommending that viewers stay away from synthetic drugs, saying that they had experienced hallucinations, paranoia, became temporarily paralyzed, and/or could not operate a motor vehicle.

Over the past few months, there has been a rapidly increasing use of, and interest in, synthetic chemicals sold under the guise of "plant food," "bath salts," "herbal incense," and "potpourri." Such labeling is nothing more than a ploy to try to get around the law. Many of the suspected synthetic cannabinoid packages display marijuana nomenclatures on the labeling such as "420," "Cush," "Hydro," and "Chronic" which are commonly known to and readily identified by drug users.

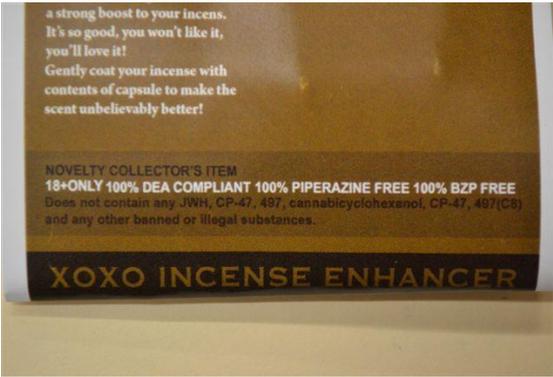
In fact, store clerks are openly discussing the manner of use and quality of the products. Many of these products are being displayed inside glass cases which also contain drug paraphernalia such as pipes, dugouts, grinders, bongs, and hookahs. Just in the last six months, law enforcement has been made aware of an increasing number of reports from poison control centers, hospital emergency rooms, and other law enforcement agencies related to the use of these products, sometimes with deadly consequences.

According to the American Association of Poison Control Centers, calls to poison control centers for the first seven months of the year in reference to exposure to "bath salts" (synthetic methcathinone) alone have increased from 303 cases in 2010 to 4,137 in 2011, an increase of more than 1,300 percent.

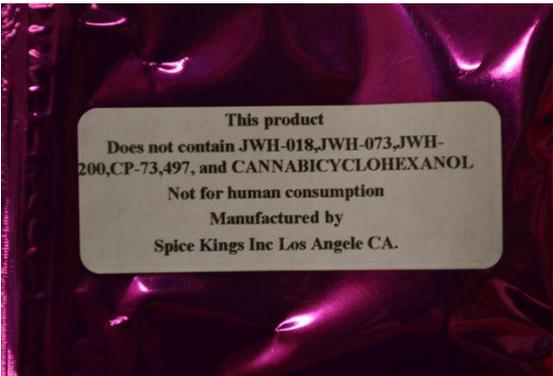




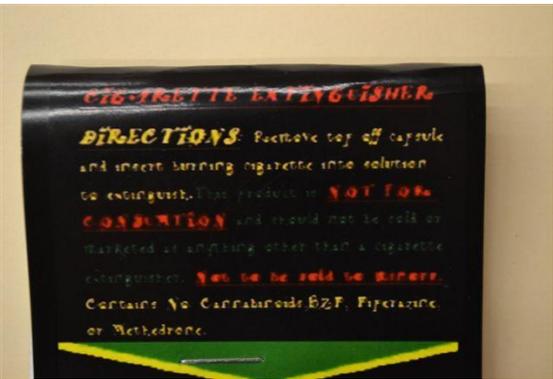




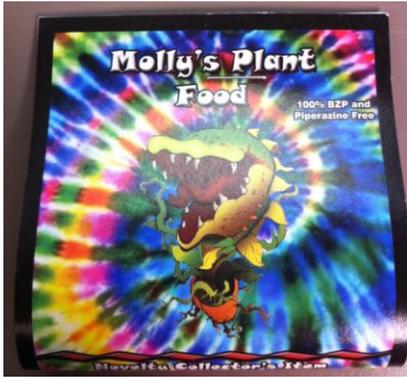


















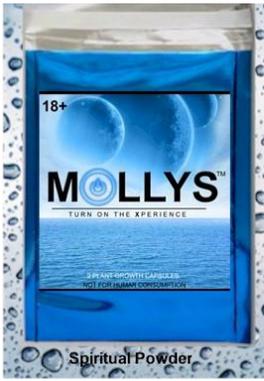








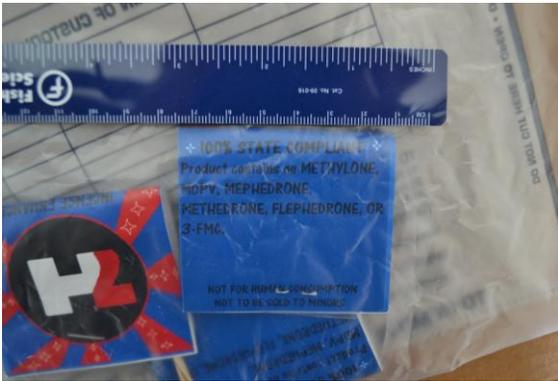


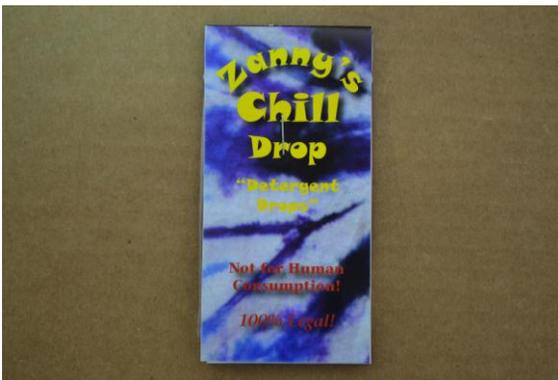
























Synthetic cathinones are central nervous system stimulants. They are chemically similar to cathinone, a Schedule I controlled substance that occurs naturally in the khat plant (*Catha edulis*).

The category of synthetic cathinones includes a number of drugs, such as:

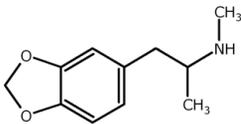
MDPV (3,4-methylenedioxypropylvalerone),
Mephedrone (4-methylmethcathinone, 4-MMC),
Flephedrone (4-fluoromethcathinone or 4-FMC),
Methylone (3,4-methylenedioxymethylcathinone, also known as **MDMC**, **bk-MDMA**, or **M1**), **Methedrone** (4-mxymethcathinone), and
3-FMC (3-fluoromethcathinone).

Cathinones typically have little or no odor and are commonly available as a fine, white, off-white, or yellowish powder in crystal form, as a tablet, or in capsules. Cathinones in this form are typically sold in bulk quantities.

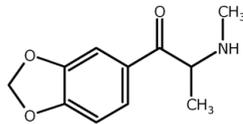
Effects of cathinones are usually experienced 15–45 minutes after ingestion and last approximately 2–5 hours. After snorting, effects are usually experienced in 30 minutes and last approximately 2–3 hours. After an intravenous injection, the effects last approximately 10–30 minutes.

Cosmic Blast is a new synthetic drug marketed as “jewelry cleaner” that is sold on the Internet and now available at some retail stores in the United States. Cosmic Blast reportedly contains two highly-dangerous stimulants - Methylenedioxypropylvalerone (MDPV) and Naphyrone. Naphyrone is also a stimulant that allegedly has similar effects to mephedrone, which is an ecstasy-like designer drug. Naphyrone is sold under the brand name MRG-1 or Energy1.

Naphyrone is a crystalline white powder that emerged as a legal high in the United Kingdom after the ban of mephedrone in July 2010, and is being marketed as a “mephedrone replacement.” Naphyrone is derived from pyrovalerone, which acts as a triple reuptake inhibitor producing stimulant effects. Naphyrone allegedly works by over-stimulating the body's pleasure receptors while flooding the body with adrenaline. Little is known about its toxicology. Naphyrone, like other designer drugs, is usually marketed as a substance “Not intended for human consumption.”



MDMA
Image by Erowid, © 2006 Erowid.org



bk-MDMA (Methylone)
Image by Erowid, © 2006 Erowid.org

The use of these cathinones cause a euphoric high with a rush and are similar to that of cocaine, ecstasy, or methamphetamine.

It acts as an appetite suppressant while giving the user more energy. For these reasons, some high school and college students are now using cathinones ("bath salts" and "plant food") because they believe it is beneficial for work or studying.

Common side effects associated with these types of drugs are as follows:

- Fast Heart Rate
- High Blood Pressure
- Dilated Pupils
- High Temperature
- Hallucinations
- Suicidal Ideation – multiple suicides reported
- Violence
- Seizures
- Death

Medical Treatment

- No antidote
- Supportive Care
 - Lots of sedation
 - Double or triple induction dose
 - Lots of fluids
 - 1-2 liters initially
 - Active Cooling
 - Temperature trending
 - Blood Pressure Control
 - Beta blockers (labetalol)



Funky Katt™



Space Tripp™

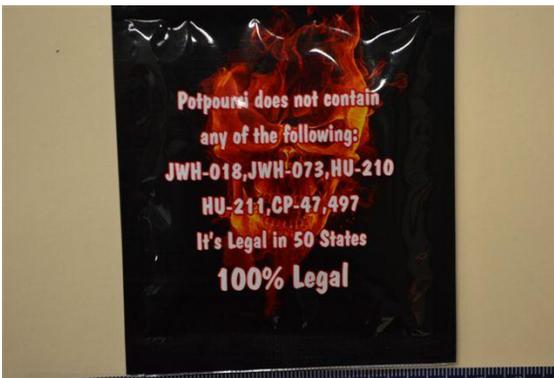


Vicozen X

Three-gram package prices range from \$5 to \$50; Internet retailers offer discounts for bulk purchases. Synthetic cannabinoid products are also packaged in plastic containers or in small plastic cylinders with white or black opaque plastic caps, a logo sticker, and shrink-wrap.

Some synthetic cannabinoid products have been packaged as pre-rolled joints; however, this method does nothing to disguise the intended use. Sometimes they are blatantly advertised as exotic herbs that, when smoked, produce euphoria, and while the packaging indicates that the products are "herbal incense," some brick-and-mortar retailers have implied from behind the sales counter that the herbal incense products they sell are "legal marijuana."













































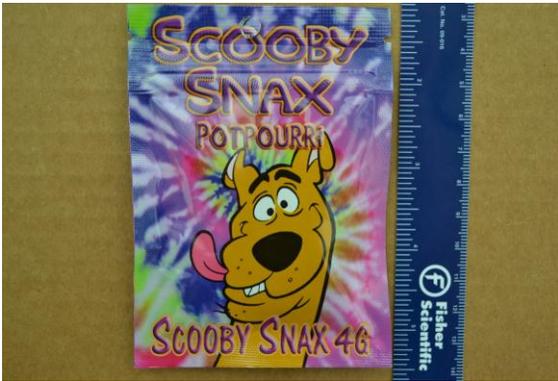






























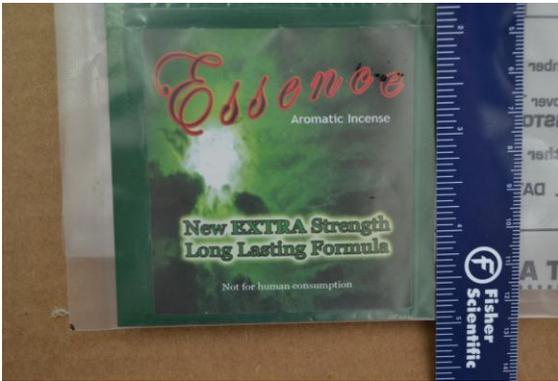




























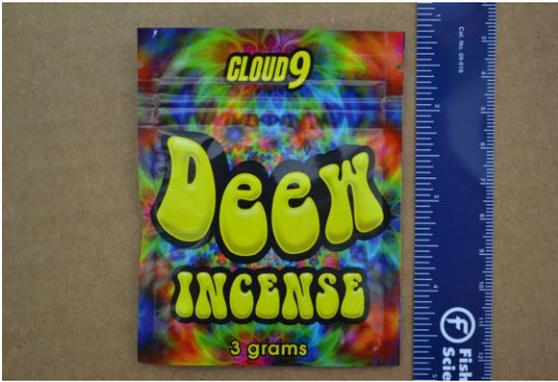






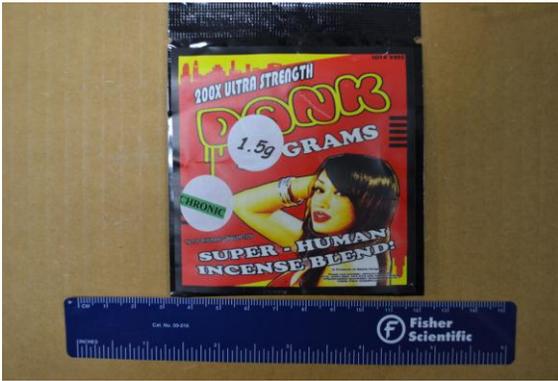




























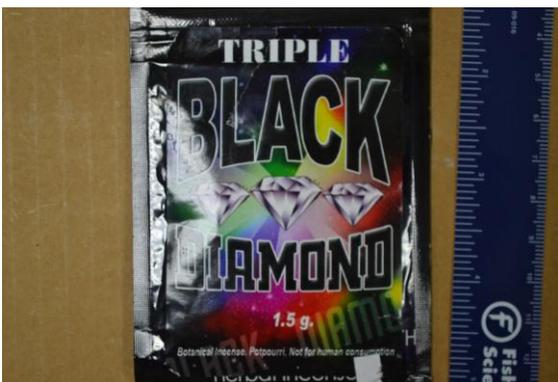






























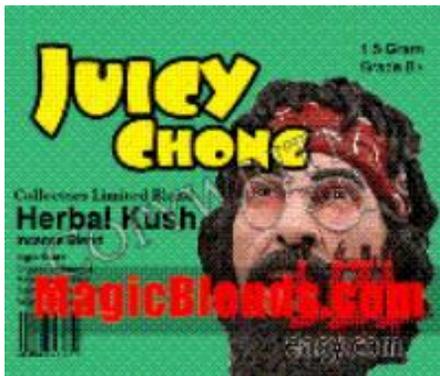


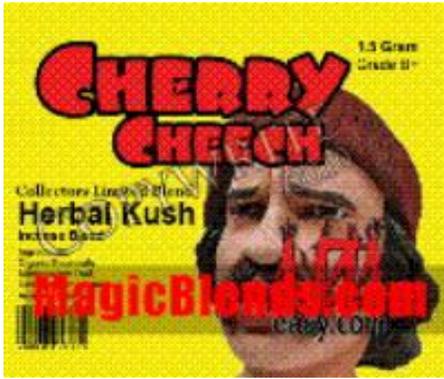










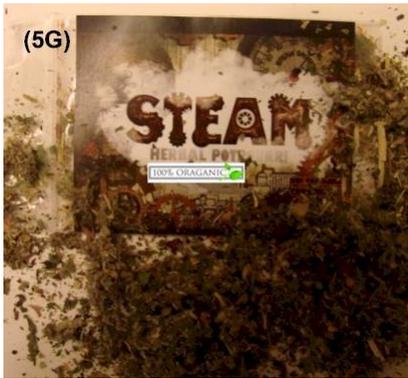






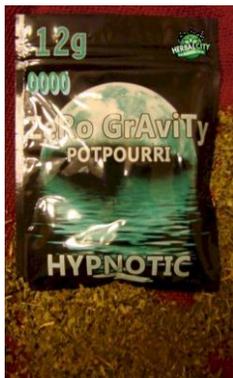












According to very limited US and European law enforcement reporting, synthetic cannabinoids are synthesized in the United States and in some foreign countries (most likely China and India, but also other countries), and the products are manufactured worldwide using various types of dried plants and raw synthetic cannabinoids. The chemicals are either purchased from specialty chemical companies throughout the world or synthesized locally by formally or informally trained chemists.

The term synthetic cannabinoid products are not meant to refer to legal products sold as pharmaceuticals. The prescription drugs nabilone (sold under the brand name Cesamet) and dronabinol (sold under the brand name Marinol) are legal synthetic cannabinoid products, although nabilone is a Schedule II controlled substance and dronabinol is a Schedule III controlled substance under the federal CSA.

Questions?

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