Summary

Across the United States, synthetic stimulants that are sold as “bath salts”¹ have become a serious drug abuse threat. These products are produced under a variety of faux brand names, and they are indirectly marketed as legal alternatives to cocaine, amphetamine, and Ecstasy (MDMA or 3,4-Methylenedioxymethamphetamine). Poison control centers nationwide have received hundreds of calls related to the side-effects of, and overdoses from, the use of these potent and unpredictable products. Numerous media reports have cited bath salt stimulant overdose incidents that have resulted in emergency room visits, hospitalizations, and severe psychotic episodes, some of which, have led to violent outbursts, self-inflicted wounds, and even suicides. A number of states have imposed emergency measures to ban bath salt stimulant products (or the chemicals in them) including Florida, Louisiana, North Dakota, and West Virginia; and similar measures are pending in Hawaii, Kentucky, Michigan, and Mississippi. A prominent U.S. Senator has also recently proposed legislation that would ban the synthetic stimulant chemicals found in bath salt products at the federal level.

¹(This emerging drug threat was previously reported in EPIC Bulletin EB10-10: “Powerful New Designer Drug - Ivory Wave,” in March 2010.)

Packaging, Availability, and Use

Bath salt stimulant products are sold in powder form in small plastic or foil packages under brand names such as “Ivory Wave, Cloud Nine, Vanilla Sky, etc.”² Quantities vary, but 200 and 500 milligram (mg) packets are common, and prices range from approximately $25 to $70 depending on the quantity and the brand. In what appears to be a direct attempt to avoid federal food and drug regulations, these products are usually marked with the statement that the package contents are “not for human consumption” or are “for novelty use only.” Bath salt products are sold over the Internet and at retail locations such as head shops, discount cigarette/tobacco shops, gas stations, convenience stores, truck stops, and in adult book/video stores. Bath salt products are most commonly snorted (insulfated) like powdered cocaine (HCL), and the products may also be smoked, swallowed, or injected intravenously as a solution.

²(Bath salt product brand names include, but are not limited to, Bliss, Blizzard, Blue Silk, Charge+, Cloud Nine, Ivory Snow, Ivory Wave, Lunar Wave, Ocean Burst, Pure Ivory, Purple Wave, Snow Leopard, Stardust, Vanilla Sky, White Dove, and White Night.)
Active Chemical Contents
Most of the bath salt stimulant products on the market today likely contain MDPV (3,4-Methylenedioxyprovalerone) as the primary chemical stimulant. A small number of these products may contain mephedrone, which was sold as a “legal high” stimulant in Europe under the guise of research chemicals, bath salts, and/or plant food, from approximately 2007 through mid-2010. Widespread mephedrone use resulted in a large number of adverse reactions and multiple deaths, and measures to control the drug were enacted by several European countries in 2010 (e.g., mephedrone was outlawed in the UK in April 2010). Since that time, the synthetic stimulant MDPV in the form of “bath salts” has been increasingly promoted as a mephedrone substitute in retail venues and especially on the Internet. The stimulant chemicals contained in these products are believed to be manufactured in bulk quantities in China and India, and some of the actual products may be packaged for wholesale distribution at intermediate locations such as Eastern Europe.

Mephedrone and MDPV are both synthetic derivatives of cathinone, which is the main chemical stimulant in Khat (Catha edulis). Cathinone is a potent central nervous system (CNS) stimulant that is structurally similar to amphetamine. The misuse of cathinone derivatives is not new. Methcathinone (ephedrine) was originally used as an antidepressant in the former Soviet Union in the 1930s, and was abused recreationally there during the 1970s and 1980s. Six synthetic cathinones that were closely related to pyrovalerone were also reported in Germany between 1997 and 2004. Available information indicates that synthetic cathinones do not produce a colored reaction with the Marquis field test kits, but they may be identified through laboratory testing with Gas chromatography/mass spectrometry (GC/MS) and infrared (IR) spectroscopy.

Sources: the European Monitoring Center for Drugs and Drug Addiction (EMCDDA), the UK Advisory Council on the Misuse of Drugs (ACMD), the DEA Office of Diversion Control Drug and Chemical Evaluation Section (DEA/OD/ODE), the National Drug Intelligence Center (NDIC), the U.S. Air Force Office of Special Investigations (AFOSI), the State of Washington Poison Center, the Minnesota Joint Analysis Center, the South Florida HIDTA Intelligence Center, the Gulf Coast HIDTA Investigative Support Network, the Houston HIDTA Intelligence Support Center, and various open sources.

Mephedrone

General
Mephedrone, or 4-methylmethcathinone, is a synthetic stimulant that produces effects similar to methamphetamine and Ecstasy. It has no approved medical use in the United States. Common/street names for mephedrone include meow-meow, M-CAT, charge, bubbles, stardust, sunshine, and plant feeder. Mephedrone has been sold over the Internet as bath salts, plant food, and as a research chemical. Mephedrone is most often encountered as a fine white, off-white, or slightly yellow-colored powder that can be inhaled (snorted), ingested (swallowed), smoked, or injected (solution). It has also been encountered in tablet and capsule form.

Effects
Mephedrone produces central nervous system stimulation, psychoactivity, and hallucinations. Adverse health effects include increased heart rate, chest pain, agitation, irritability, dizziness, delusions, nose bleeds, nausea and vomiting.
Federal Control Status
Mephedrone (4-methylmethcathinone) is not specifically scheduled under the Controlled Substances Act (CSA). Mephedrone is a chemical analogue of methcathinone which is a CSA Schedule I controlled substance. Accordingly, if it is intended for human consumption, incidents involving mephedrone can be prosecuted under the Federal Analog Act of the CSA.

Sources: the DEA Office of Diversion Control Drug and Chemical Evaluation Section (DEA/OD/ODE) and the National Drug Intelligence Center (NDIC).

MDPV

General
MDPV, or 3,4-Methylenedioxypyrovalerone, is a synthetic stimulant that produces effects similar in part to amphetamine, Ecstasy, and methamphetamine. MDPV has no approved medical use in the United States. Currently, MDPV is one of the primary stimulant ingredients in the bath salt products that are sold over the Internet and in various retail establishments. It has also been sold on the Internet as a “research chemical.” MDPV is most commonly encountered as a fine white or off-white powder that can be inhaled (snorted), ingested (swallowed), smoked, or injected (solution).

Effects
MDPV reportedly produces a combination of amphetamine-like central nervous system stimulation and euphoria, and Ecstasy-like hallucinogenic effects. Excessive use appears to result in intense cravings to binge/re-dose similar to methamphetamine. Adverse physical effects may include a rapid increase in heart rate, chest pains, nosebleeds, sweating, nausea, and vomiting; and adverse psychological effects may include agitation, irritability, dizziness, insomnia, depression, delusions, paranoia, and suicidal thoughts. Higher doses of MDPV have also reportedly produced intense and prolonged panic attacks and psychotic episodes that have resulted in violent behavior. (Analyst comment: Anecdotal information indicates that while MDPV users may briefly experience stimulant/euphoric effects similar to amphetamine and Ecstasy, those seemingly positive effects may quickly give way to negative effects like paranoid delusions and bizarre LSD-like hallucinations.)

Federal Control Status
MDPV (3,4-Methylenedioxypyrovalerone) is not specifically scheduled under the Controlled Substances Act (CSA). The chemical derivative status of MDPV is currently under review by the DEA Office of Diversion Control Drug and Chemical Evaluation Section.

Sources: the DEA Office of Diversion Control Drug and Chemical Evaluation Section (DEA/OD/ODE), the DEA Office of Forensic Sciences, the European Monitoring Center for Drugs and Drug Addiction (EMCDDA), the UK Advisory Council on the Misuse of Drugs (ACMD), the U.S. Air Force Office of Special Investigations (AFOSI), and the State of Washington Poison Center.
Examples of Internet Marketing

“This Bath Salt Blend is considered a convenient and gentle way to lightly refresh your home with authentic, natural fragrances. Place contents in the bath and let the fragrance envelope the room. You will not be disappointed. All orders will be shipped USPS Priority Mail which depending on where you live will arrive within 24 - 48 hours. Sale to persons under the age of 18 is Prohibited.”

http://caneffincense.com

“PLEASE NOTE: Due to the concentrated nature of this product we strongly recommend that you purchase the 500 mg size if you have never purchased this product before and that for the first few hours you only use one application. You will be surprised by how long it lasts - -there really is no need for a second application for hours. Once you have experienced ivory wave bath salts you will know how to apply in future. It is also strongly recommend that you do not mix these bath salts with other similar products and for health and safety reasons its always best to stay away from alcohol and prescription medication, or to be intoxicated when bathing using ivory wave or any other bath salts product sold on this site.”

http://am-hi-co.com

Mephedrone, methylene, and MDPV are available in quantities from 1g +
Buy research chemicals

http://researchchemicalsonline.com
Questions or comments in reference to this report can be directed to the EPIC Research and Analysis Section, Special Projects Unit, Tactical Bulletins Program, I/A Jeff Jasek at (915) 760-2445 (email: jeffrey.g.jasek@usdoj.gov) or Unit Chief Morgan Holley at (915) 760-2024 (email: morgan.h.holley@dea.usdoj.gov).

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