OSAM-O-GRAM
Wright State University

Ohio Department of Alcohol & Drug Addiction Services

Boonshoft School of Medicine
WRIGHT STATE UNIVERSITY

Dateline: Ohio June 2008-January 2009

Statewide reports of piperazines in adulterated "Ecstasy" tablets

Increases in Piperazine Availability

In January 2008, the OSAM Network received initial reports from crime lab professionals of piperazine-containing pressed tablets that appeared to be sold as Ecstasy. One year later, availability of pressed tablets containing piperazines has drastically increased throughout the state (Table below). Piperazine cases now outnumber the cases of MDMA-containing Ecstasy tablets analyzed by crime labs across Ohio. A crime lab professional from the central Ohio area said, *"We analyzed our first benzylpiperazine cases in January 2008, and it's been fairly steady since that time."*

Table 1: Availability of piperazine tablets according to crime lab professionals

Crime Lab	Jan. 2008	June 2008	Jan. 2009
Cincinnati			M
Cleveland	L	M	M
Columbus	L	M	M
Dayton			
Toledo	L		M
BCI&I Bowling Green	M	H	H
BCI&Richfield (Cleveland/Akron/Youngstown)	L	L	H
BCI&I London (Southern and Central Ohio)		M	M
Canton-Stark County		M	H

■ High ■ Moderate ■ Low (white = no cases)

What Are Piperazines?

Piperazines, specifically, 1-benzylpiperazine (BZP) and 1-3-trifluoromethylphenyl piperazine (TFMPP), are also known as "A2," "Legal E," "Legal X," or "Molly." BZP is a stimulant with potential for abuse, and when combined with TFMPP is thought to mimic the stimulant and psychoactive effects of MDMA. In 2002, the U.S. classified both BZP and TFMPP as Schedule I drugs. Although BZP remains a schedule I drug, TFMPP is no longer a controlled substance. Piperazine-based "party pills" remain legally available in Europe. Although less common, reports of meta-chlorophenyl piperazine (m-CPP) tablets have surfaced in northeast Ohio, *"We did just see one with mCPP, but that's not as popular as BZP. The informant who brought it was told it was 'Triple E' or 'Super Ecstasy' by the dealer. Most of the tablets don't look any different than Ecstasy but we did find one micro tablet, which was half the size of a normal Ecstasy tablet and it ended up being mCPP."* A lab in the central Ohio area reported most of the pressed tablets analyzed there contain polydrug combinations, *"The most common combination in our lab is BZP/TFMPP/MDMA/Methamphetamine. In the last year, only seven cases have been BZP alone."*

Piperazines vs. Ecstasy(MDMA)

Crime lab professionals reported piperazines are indistinguishable from traditional Ecstasy tablets. A crime lab professional from the northwest Ohio area noted, *"Most lab chemists would tell you just from looking at the markings you cannot tell what's in it…there is no link between the color or the logo…users would never know, they can't tell the difference because Ecstasy and BZP look the same."* Crime lab professionals unanimously remarked that, even recognizable markings on Ecstasy tablets may have differing ingredients from one batch to the next, saying, *"Multiple submissions have different content with no rhyme or reason based on markings. For example, we have blue dolphins [stamped tablets] in our lab that have been BZP/Ketamine, another, same markings, MDMA."*

Although focus group participants have not specifically reported piperazine abuse, users in several regions have commented on the varying effects of Ecstasy. Providers in Dayton recently commented that some users call Ecstasy a "surprise high" noting, *"…because there's so many different types you don't know what it's gonna be; the Ecstasy that's speed or the Ecstasy where it's a downer…they [users] say, 'you don't know what type of candy you're gonna get.'"* A crime lab professional in the central Ohio area added, *"In my mind, Ecstasy is the scariest thing out there right now. When you're unknowingly getting a five-drug combination, that's some scary stuff."*

Animal research has indicated that the BZP/TFMPP combination in high doses (>10 mg/kg) can cause seizures and ataxia[1]. Studies on the combined effects of BZP/TFMPP in humans are few.

1 Baumann,et. al. (2005) N-Substituted Piperazines Abused by Humans Mimic the Molecular Mechanism of 3,4-Methylenedioxymethamphetamine (MDMA, or 'Ecstasy'). Neuropsychopharmacology 30: 550-560.

OSAM-O-GRAMS report key findings of the Ohio Substance Abuse Monitoring (OSAM) Network. Regional Epidemiologists located throughout the state use qualitative and quantitative data to provide semiannual reports of substance abuse trends. The OSAM Network is funded by the Ohio Department of Alcohol and Drug Addiction Services by contract to Wright State University. This OSAM-O-GRAM is based on the January 2009 OSAM Network meeting.

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