

## DRUG ALERT

### *THE HALLUCINOGEN PMA: DANCING WITH DEATH*

#### Overview

Paramethoxyamphetamine (PMA), also known as 4-methoxyamphetamine, is an illicit, synthetic hallucinogen that has stimulant effects similar to other clandestinely manufactured amphetamine derivatives like MDMA (Ecstasy). Until recently, illicit abuse of PMA was briefly encountered during the early 1970s in the United States and Canada. However, since February 2000, PMA has reemerged in Florida, Illinois, Michigan, Virginia, and Canada. Moreover, since May 2000, PMA ingestion has been associated with three deaths in Chicago, Illinois, and seven deaths in central Florida.



PMA recently confiscated from an overdose victim by the McHenry, Illinois, Police Department. Photograph courtesy of the McHenry Police Department.

#### Effects

PMA is a potent and potentially lethal synthetic hallucinogen, which was placed into Schedule I of the Controlled Substances Act in 1973. The drug has been sold in tablet, capsule, and powder form, and its appearance and cost are comparable to MDMA. Common street names for PMA are "Death" and "Mitsubishi Double-Stack."

The effects associated with PMA vary depending on the dose and whether other drugs are present. PMA typically is administered orally in pill or capsule form. PMA powder, although uncommon, may be inhaled or injected to accelerate the response. Ingesting a dose of less than 50 milligrams—usually one pill or capsule—without other drugs or alcohol, induces symptoms reminiscent of MDMA. Such effects include increased pulse rate and blood pressure, increased and labored respiration, elevated body temperature, erratic eye movements, muscle spasms, nausea, and heightened visual stimulation. Doses over 50 milligrams are considered potentially lethal, especially when taken with other drugs, such as amphetamine derivatives, cannabis, cocaine, prescription medications like fluoxetine (Prozac), and alcohol. Higher doses can produce cardiac arrhythmia and arrest, breathing problems, pulmonary congestion, renal failure, hyperthermia, vomiting, convulsions, coma, and death.

## Abuse/Availability

In 1973, PMA was produced by clandestine laboratory facilities in Canada. PMA manufactured by these operations appeared in limited areas of Canada and the United States. During that time, three deaths were suspected and two deaths were determined to be associated with PMA abuse in the United States. Eight deaths in Canada were attributed to PMA abuse. Federal, state, and local forensic laboratories in Georgia, Kansas, Missouri, and the Centre of Forensic Science in Toronto, Canada, confirmed that PMA contributed to those deaths.

From 1974 to early 2000, no deaths attributed to PMA abuse were reported in Canada or the United States. Since May 2000, however, three deaths in the cities of Lisle, McHenry, and Naperville, Illinois, and seven deaths in central Florida were associated with PMA ingestion.

Since mid-2000, PMA also has been associated with four deaths in Europe. Austria, Denmark, and Germany reported that the victims died after consuming what they believed to be Ecstasy, but was later identified as PMA. In 1994, the use of PMA emerged in isolated areas of the Australian drug-abusing population. Currently, the drug is still available illicitly in Australia at nightclubs and rave parties where it is generally sold as MDMA. In fact, dealers and purchasers may be unaware that they are selling or buying PMA. Since PMA appeared in 1994 it has been associated with approximately 12 deaths there. Forensic science centers in Australia confirmed that most of the overdose victims ingested toxic amounts of PMA.

## Production

Currently, PMA is produced legally in the United States for limited commercial applications. A small quantity also is allocated for Schedule I scientific research.

The illicit form of PMA is produced in clandestine laboratories. Although PMA can be manufactured by several methods, the method used depends largely upon the availability of certain precursors. The exact synthesis procedure recently used to manufacture the PMA found in Florida, Illinois, Michigan, Virginia, and Canada is still unknown. Contrary to initial newspaper reports from Australia, the likelihood that PMA is inadvertently produced during the manufacture of MDMA is highly unlikely.

To date, four clandestine PMA laboratories have been seized worldwide: in Toronto, Canada, in 1973; in Worms, Germany, in 1991; and, in 1999, two laboratories in northern Germany, one located in Brandenburg.

## Distribution

A major trafficking network involving PMA has never been identified in the United States. In 1973, a trafficking group extending from Toronto, Canada, into Kansas City, Missouri, Kansas City, Kansas, Atlanta, Georgia, North Carolina, and Washington, DC, was discovered.

Currently, illicit PMA distributors in the United States have targeted dealers primarily at rave clubs. Dealers may be unaware that they are buying or selling PMA rather than other club drugs like MDMA. The Drug Enforcement Administration (DEA) along with state and local authorities currently is attempting to determine if there is any connection among the PMA samples recently identified in Canada,

Europe, and the United States. Drug exhibits acquired by the DEA in its criminal investigations are routinely sent to DEA laboratories for analysis. DEA forensic chemists analyze such drug exhibits for the presence of a wide variety of controlled substances, including PMA.

## Outlook

### *PMA: Cause for Concern*

The increasing popularity associated with designer drugs increases the risk that users may inadvertently ingest substances such as PMA, which is similar in appearance to MDMA but is more toxic. The continued presence of PMA in Australia and the recent appearance in Canada, Europe, and the United States are causes for concern that PMA will be associated with additional overdoses and deaths. The DEA is actively conducting investigations in order to identify the source of production and distribution networks.

This report was prepared by the DEA Intelligence Division, Domestic Strategic Unit, with the assistance of the Drug and Chemical Evaluation Section, Office of Diversion Control. Comments and requests for copies are welcome and may be directed to the Intelligence Production Unit, Intelligence Division, DEA Headquarters, at (202) 307-8726.