

MDMA on the Street: Analysis Anonymous®

CHARLES L. RENFROE*

Confidential scientific analysis of street drugs grew out of the treatment, education and prevention efforts of the counterculture movement in the 1960's and became even more crucial with the proliferation of clandestine laboratories that manufacture impure drugs and deadly, powerful synthetic narcotics. One of the first programs established to inform, warn and protect the public against the circulation of hazardous or lethal street drugs and adulterants was Analysis Anonymous®.

Analysis Anonymous®, a confidential drug testing service of PharmChem Laboratories, Inc., in Menlo Park, California, began operation in 1972 as a public service of the nonprofit PharmChem Research Foundation. It grew into one the largest street-drug testing laboratories in the world, but after 12 years discontinued the anonymous service on May 31, 1984, six years after the Foundation concluded its work.

Public use of Analysis Anonymous® from 1973 (data from 1972 are incomplete) through 1983 totaled 20,721 samples from the United States and a number of other countries. This total applies only to the most commonly used and abused street drugs, including amphetamine, methamphetamine, cocaine, opiates, lysergic acid diethylamide, mescaline, psilocybin/psilocin, cannabis products, phencyclidine and 3,4-methylenedioxymphetamine and/or 3,4-methylenedioxymethamphetamine (MDA and MDMA, respectively).

MDA and MDMA were always combined into a single category for reporting purposes and together occu-

ried the middle ground in popularity among drugs submitted for analysis. However, for this article, MDA and MDMA were separated, leaving a total of 72 alleged MDMA samples for evaluation through 1983. Of the combined 610 MDA/MDMA samples submitted to PharmChem, MDMA represents only 12 percent of the total. Since 1983, PharmChem's Analysis Anonymous® clients have been referred to the Street Pharmacologist (S.P.) Lab in Miami, Florida, perhaps the last drug testing service of its kind. Data from S.P. for 1984 and 1985 add another 29 submittals for a total of 101 alleged MDMA samples for this study.

Because of the anonymous nature of these services, only tentative assumptions can be made about the characteristics of individual samples. Not all drugs sent to PharmChem for analysis were submitted in proportion to their availability on the street and duplicate samples from the same sources were difficult to avoid. While PharmChem vouches for the actual content and description of samples, information about alleged content, origin and price were volunteered by sample donors and is not verifiable. For these reasons, the data in this article do not represent a strict scientific sampling. Therefore, comments made in regard to the data should be taken in light of these limitations.

However, Analysis Anonymous® did provide a window on the world of street drugs, monitoring certain trends in drug use patterns. The data gathered here do provide some evidence for drug validity, adulteration and substitution. Samples were qualitatively analyzed for 350 drugs and adulterants; they were screened by thin-layer

*PharmChem Laboratories, Inc., 3925 Bohannon Drive, Menlo Park, California 94025.

FIGURE 1

Drug Assay Summary — MDMA

PharmChem Laboratories, Inc. — Analysis Anonymous®

Year	No. of Samples	Same as Alleged	Alleged & Other Drug(s)	Non-Alleged Drug(s)	Unidentified Substance(s)	No Drug(s) Detected
1973	0	—	—	—	—	—
1974	0	—	—	—	—	—
1975	1		1 (100%)			
1976	1	1 (100%)				
1977	5	1 (20%)	2 (40%)	2 (40%)		
1978	12	2 (17%)	6 (50%)	4 (33%)		
1979	12	7 (58.3%)	3 (25%)	1 (8.3%)		1 (8.3%)
1980	4	1 (25%)	1 (25%)	2 (50%)		
1981	9	7 (78%)	2 (22%)			
1982	14	13 (93%)		1 (7%)		
1983	14	8 (57%)	5 (36%)	1 (7%)		
1984	8	8 (100%)				
1985	21	11 (52%)	4 (19%)	5 (24%)		1 (5%)
Totals	101	59 (58%)	24 (24%)	16 (16%)		2 (2%)

FIGURE 2

Street Drug Validity Rates*
PharmChem Laboratories, Inc. — Analysis Anonymous®

Year	Amphetamine	Methamphetamine	Cocaine	MDA	MDMA
1973	48%	40%	70%	—	—
1974	25%	33%	25% 38% + sugars	—	—
1975	6%	36%	5% 58% + sugars	20%	0%
1976	8%	51%	12% 44% + sugars	25%	100%
1977	9%	38%	28% 27% + sugars	31%	20%
1978	6%	32%	25% 31% + sugars	16%	17%
1979	7%	30%	25% 23% + sugars	7%	58%
1980	1%	12%	30% 17% + sugars	18%	25%
1981	5%	25%	36% 17% + sugars	17%	78%
1982	18%	22%	38% 16% + sugars	53%	93%
1983	6%	37%	61% 16% + sugars	50%	57%
1984	0%	78%	80%	80%	100%
1985	0%	63%	59%	75%	52%
Averages	11%	38%	60%	30%	46%

* Validity rate is a comparison between actual composition of samples and the alleged content.

FIGURE 3

Itemized Drug Assay Report—MDMA (1973–1985)

PharmChem Laboratories, Inc. — Analysis Anonymous®

Year	Alleged Content	Actual Content	Description	Origin	Price
1973	—	—	—	—	—
1974	—	—	—	—	—
1975	MDM	MDMA + U.S.	brown/black brittle substance	?	?
1976	MDM	MDMA	#2 clear cap w/white powder	San Francisco, CA	\$500/oz
1977	MDM	MDMA + MDA	tan powder	Livermore, CA	\$875/oz
1977	MDM	MDMA + U.S.	off-white powder	San Francisco, CA	?
1977	MDM	MDA	#1 clear cap w/white powder	San Francisco, CA	\$5/cap
1977	MDM	MDA	#1 clear cap w/white powder	San Francisco, CA	\$4/cap
1977	MDM	MDMA	#00 clear cap w/white powder	Eugene, OR	\$35/g
1978	MDM	MDMA + U.S.	white powder	San Francisco, CA	\$40/g
1978	MDM	MDMA + U.S.	#0 yellow/green cap w/yellow powder	San Francisco, CA	?
1978	MDM	MDMA + U.S.	#1 clear cap w/white powder	San Francisco, CA	\$30/g
1978	MDM	MDMA + U.S.	light-brown, crystalline powder	San Francisco, CA	?
1978	MDM	MDA + U.S.	#1 clear cap w/white powder	San Francisco, CA	\$5/cap
1978	MDM	MDMA + MDA	#00 clear cap w/white powder	Eugene, OR	\$70/g
1978	MDM	MDA	#0 clear cap w/white powder	Eugene, OR	\$60/g
1978	MDM	MDMA + U.S.	beige powder	Eugene, OR	\$70/g
1978	MDM	MDMA	white powder	Southern OR	\$35/g
1978	MDM	MDA + U.S.	white powder	OR	?
1978	MDM	MDMA + U.S.	#2 clear cap w/white powder	?	\$5/cap
1978	MDM	MDMA	white powder in glass rod	?	?
1979	No itemized data available for 1979				
1980	MDM	MDA + U.S.	white powder	San Francisco, CA	\$50/g
1980	MDM	MDMA	white powder	Eugene, OR	\$5/cap
1980	MDM	MDMA + U.S.	#3 clear cap w/white powder	Boston, MA	?
1980	MDM	MDA + U.S.	#3 clear cap w/white powder	New York, NY	\$60/g
1981	MDM	MDMA + methylamine	white powder	Berkeley, CA	\$10/200 mg
1981	MDM	MDMA + methylamine	#0 clear cap w/white powder	Berkeley, CA	\$5/cap
1981	MDM	MDMA	white crystals	Marin County	\$25/1/4g
1981	ADAM	MDMA	#3 clear cap w/white powder	Santa Rosa, CA	\$5/cap
1981	ECSTASY	MDMA	#4 clear cap w/white powder	Venice, CA	\$10/cap

Note: U.S. = unidentified substance / g = gram / oz = ounce / cap = capsule / tab = tablet

Year	Alleged Content	Actual Content	Description	Origin	Price
1981	MDM	MDMA	#00 clear cap w/white powder	Eugene, OR	\$10/cap
1981	MDM	MDMA	#2 clear cap w/white powder	Boston, MA	?
1981	XTC	MDMA	broken clear cap w/white powder	Raleigh, NC	\$7.50/cap
1981	XTC	MDMA	#3 clear cap w/white powder	?	?
1982	MDM	MDMA	#3 clear cap w/white powder	Berkeley, CA	\$20/cap
1982	MDM	MDMA	white powder	Salinas, CA	?
1982	MDMA	MDMA	#4 clear cap w/white powder	San Francisco, CA	\$10/cap
1982	MDM	MDMA	#2 clear cap w/white powder	San Rafael, CA	?
1982	MDM	MDMA	#3 clear cap w/white powder	Northern CA	\$6/cap
1982	XTC	MDMA	#3 clear cap w/white powder	Los Angeles, CA	\$10/cap
1982	ECSTASY	MDA	#4 clear cap w/white powder	Los Angeles, CA	\$15/cap
1982	XTC	MDA	#4 clear cap w/white powder	Pasadena, CA	\$10/cap
1982	XTC	MDMA	white powder	Boston, MA	\$10/cap
1982	ECSTASY	MDMA	white powder	New York, NY	\$5/cap
1982	ECSTASY	MDMA	#3 clear cap w/white powder	New York, NY	\$20/1/4oz
1982	ECSTASY	MDMA	white powder	New York, NY	\$12/cap
1982	XTC	MDMA	#3 clear cap w/white powder	New York, NY	\$10/cap
1982	MDM	MDMA	flaky white powder	Eastern USA	\$15/cap
1983	MDM	MDMA	fine white powder	Berkeley, CA	?
1983	MDM	MDMA + U.S.	fine white powder	Fulton, CA	?
1983	ECSTASY	MDMA	#4 clear cap w/white powder	Oakland, CA	\$10/cap
1983	MDM	MDMA	fine, flaky, crystalline white powder	Oakland, CA	?
1983	MDM	MDMA	#00 clear cap w/white powder	San Francisco, CA	\$8/cap
1983	MDM	MDMA + U.S.	white powder from cap (not included)	San Francisco, CA	\$8/cap
1983	MDM	MDMA	#5 clear cap w/white powder	San Rafael, CA	?
1983	MDM	MDMA + U.S.	#00 clear cap w/white powder	Santa Cruz, CA	\$8/cap
1983	XTC	MDA + residue	#3 clear cap w/white powder	Los Angeles, CA	\$8/cap
1983	ECSTASY	MDMA	#3 clear cap w/white powder	Los Angeles, CA	\$12/cap
1983	ECSTASY	MDMA	fine, flaky white powder	Los Angeles, CA	?
1983	ECSTASY	MDMA + U.S.	#3 clear cap w/white powder	Los Angeles, CA	?
1983	MDM	MDMA + 2 U.S.	white powder	Eugene, OR	?
1983	ECSTASY	MDMA	#4 clear cap w/white powder	Boston, MA	?
1984	MDMA	MDMA	broken cap	Berkeley, CA	?
1984	MDMA	MDMA	white cap	Oakland, CA	?
1984	ADAM	MDMA	white powder	San Francisco, CA	?
1984	MDMA	MDMA	white powder, broken cap	Marina Del Rey, CA	?
1984	MDMA	MDMA	broken white tab	Fort Lauderdale, FL	?
1984	MDMA	MDMA	white powder	New York, NY	?
1984	ADAM	MDMA	clear cap w/white powder	Austin, TX	?
1984	ECSTASY	MDMA	small white cap	Burlington, VT	?
1985	MDMA	MDA + others	clear cap, creamy powder	Ben, CA	?

Year	Alleged Content	Actual Content	Description	Origin	Price
1985	MDMA	MDA	clear cap	Ben, CA	?
1985	MDMA	MDMA + MDA	clear cap w/white powder	Berkeley, CA	?
1985	MDMA	MDMA + MDA	clear cap w/white powder	Oakland, CA	?
1985	MDM	MDA	clear cap	Oakland, CA	?
1985	MDMA	MDMA	clear cap w/white powder	San Francisco, CA	?
1985	MDMA	MDMA	pale green powder	San Francisco, CA	?
1985	MDMA	MDMA	white powder	San Francisco, CA	?
1985	MDMA	MDMA + impurity	white powder	San Rafael, CA	?
1985	MDM	MDMA	clear cap w/white powder	San Rafael, CA	?
1985	MDMA	MDMA	white powder	San Rafael, CA	?
1985	MDMA	amphetamine compound	clear cap w/white powder	Honolulu, HI	?
1985	ECSTASY (speed)	No Drug Detected	plastic syringe	Miami, FL	?
1985	MDMA	MDMA + impurity	clear cap w/white powder	Panama City, FL	?
1985	MDMA	MDMA	no description	Boston, MA	?
1985	MDMA	MDMA	white tab	Beach Haven, NJ	?
1985	MDMA	MDMA	clear cap w/white powder	Washington, DC	?
1985	MDMA	MDMA	clear cap w/white powder	Dallas, TX	?
1985	MDMA	MDMA	clear cap w/white powder	Salt Lake City, UT	?
1985	MDMA	MDA	clear cap w/white powder	?	?
1985	MDMA	MDMA	white tab	?	?

chromatography and confirmed by gas chromatography. Generally, more than half of all samples contained drugs other than those alleged. Based on PharmChem's analyses, this article compares the actual composition of samples against the alleged content, MDMA. Such a comparison is called the *validity rate*.

VALIDITY RATE

Of the 101 alleged MDMA samples, 59 contained MDMA only—a 58 percent validity rate (see Figure 1). Twenty-four (24) of the samples contained MDMA plus one or more other substance(s), usually MDA, and occasionally an unidentified substance or methylamine (a chemical precursor). The unidentified substances were probably by-products of the synthetic process.

Samples that fell under the nonalleged category and contained no MDMA were almost always MDA alone (in 94 percent of the samples in this category) or MDA with one or more unidentified substance(s) or residue(s). One

sample from S.P. contained a nondescript amphetamine compound.

There were only two cases of no drug(s) detected in all of the alleged MDMA samples: one in 1979 and another in 1985. Unfortunately, PharmChem did not itemize the data from 1979, so there was no way to know exactly what these samples contained. However, it probably would be safe to assume that results on the 12 samples from 1979 followed the same pattern set by previous and following years. The 1985 Ecstasy sample came in a plastic syringe (see Figure 3). It is quite possible that there was too little sample to test; therefore, the results showed no drug(s) detected.

When comparing the validity rates of selected street drugs (see Figure 2), MDMA differs significantly from central nervous system (CNS) stimulants and other substituted amphetamines. MDMA, when adulterated, only contained its close relative, MDA. Amphetamine and methamphetamine samples, on the other hand, were often

impure combinations, including a variety of CNS stimulants and sometimes barbiturates, antihistamines, analgesics and/or synthetic opiates.

ORIGIN

The primary source of MDMA between 1973 and 1985 was from the West Coast. Most samples came from the San Francisco Bay Area; even samples sent to Florida's S.P. Lab in 1984 and 1985 came predominantly from the San Francisco Bay Area.

San Francisco led all other cities with 17 alleged samples during the study period (1979 excluded). Eugene, Oregon, was second with seven. New York, Los Angeles and Berkeley, California, each submitted six samples, and five samples came from Boston, San Rafael and Oakland, California. Samples from Texas, another area of reported widespread MDMA use, were not seen until 1984.

DESCRIPTION

Popular street names for MDMA did not appear until 1981 (see Figure 3). Until then, MDM was the sole name used for submittals between 1975 and 1980. In 1981, the names Adam, Ecstasy and XTC were introduced, and in 1982, MDMA was first seen. By 1985, MDMA seemed to be the most popular term for samples submitted for analysis.

MDMA appeared most frequently as a white powder in clear, colorless gelatin capsules of various sizes. White powder samples without capsules were submitted throughout the 1970's, but decreased in frequency through the early 1980's.

White powder samples were submitted primarily from the San Francisco Bay Area and Eugene, Oregon. New York, Boston and other cities outside the Bay Area produced very few of the powders alone. A few miscellaneous forms, such as tan or brown powders, crystals and odd-colored capsules were noted, again, primarily from the San Francisco Bay Area. White tablets originated from the East Coast in 1984 and 1985.

COST

Powders

San Francisco and Eugene, Oregon, were the only two cities with enough price information from which to

compile a meaningful report. In a typical year (1978), the San Francisco cost per gram ranged between \$30.00 and \$40.00, while Oregon prices were \$60.00 to \$70.00 per gram.

Capsules

Both the East and West Coasts were consistent in showing the same price average through 1980. By 1981, the cost had increased to between \$7.50 and \$10.00 per capsule, and one year later, the price jumped again to an average range of \$10.00 to \$15.00. In 1982, \$5.00 and \$6.00 were exceptionally inexpensive buys. A slight drop occurred in 1983 when the average price per capsule was \$8.00 to \$12.00. No prices were available from the S.P. Lab for 1984 and 1985.

DISCUSSION

In summary, this article examines the validity—or purity—of MDMA from 1973 to 1985. Considering the limitations of the data, one might conclude that, until the news media's love affair with Ecstasy last summer, MDMA never earned a real reputation of its own. As laboratory analyses revealed, MDMA was often substituted or adulterated with MDA.

However, average validity rates over the 13-year period show that MDMA was a better street buy than MDA. This may no longer be true since the federal scheduling of MDMA in July 1985. Government regulation and the cultural infatuation with Ecstasy are bound to affect the supply and purity of street samples, so new efforts to provide confidential street drug analysis are desperately needed. Unfortunately, funding for such services is not likely in the political climate surrounding drug abuse issues today.

This issue of the *Journal of Psychoactive Drugs* devoted to MDMA eventually may serve only as a historical footnote in the larger drama of designer drugs. Since regulating MDMA, the Drug Enforcement Administration has seized an increasing number of clandestine laboratories manufacturing phenethylamine analogues, while production of synthetic narcotics has virtually disappeared. MDMA and MDA both belong to the phenethylamine group of synthetic drugs and could be the ancestors of future generations of hallucinogenic stimulants.