

**SB**

**220**

METHCATHINONE BY L.E. FISHER

DIALOG File #92: 01993 Phnx Newspapers Inc>  
07087072

CAT' ATTACK: U.S. EPIDEMIC OF NEW DRUG IS FEARED SIMPLE CONCOCTION SWEEPS N. MICHIGAN

Arizona Republic (AR) - SUNDAY, March 28, 1993  
By: Jim Schaefer, Detroit Free Press  
Edition: State Section: Valley And State Page: B13  
Word Count: 714

TEXT:

MARQUETTE, Mich. - For 2 1/2 years, Vince Swenor sucked the seductive, off-white powder up his nose, and with each power-packed hit, the mysterious drug pulled him in tighter.

Swenor, seeking to spark up his life on Michigan's Upper Peninsula, had tried cocaine before. But this wasn't cocaine. This was something new, something more interesting, something that Swenor created at home with common chemicals, some jars and rubber tubes.

In mid-1990, two friends began making it at Swenor's house, and "like a good cookie recipe," Swenor said, the formula spread around the Marquette area. And it backed a wallop like no other drug that Swenor, 24, had tried.

"I thought it was the greatest thing in the world," said the soft-voiced Swenor, who is unemployed. "I could make it in my own house, never run out. I had it made."

But with frightening speed, the strange powder had Swenor helpless.

He called it by its street nickname, "cat," and by the time he learned what was used to make the drug, Swenor couldn't stop doing it even though he was shocked. Cat is made with battery acid, paint thinner, drain cleaner, muriatic acid, other assorted poisons and over-the-counter drugs.

SCIENTISTS PUZZLED

Police-laboratory scientists had no idea what cat was when it popped up on the Upper Peninsula a couple of years ago.

After police made the first seizure of the drug in early 1991, it took two weeks to identify it. The veteran chemist who finally rooted out cat's scientific name, methcathinone, had never heard of it.

Since police made that first puzzling contact, authorities say cat has blown into an epidemic on the Upper Peninsula, which they call the birthplace of illegal methcathinone in the United States. They still aren't sure why it has taken such hold in the area.

Cat has established a surprising link between the Upper Peninsula and Russia. Michigan authorities say Russia is the only other place in the world where illegal use of the drug has been known.

RECIPE'S SPREAD FEARED

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But cat now is seeping into northern Wisconsin and southern Michigan as police and doctors scramble to squash it on the Upper Peninsula. They fear that the drug may roar across the United States as the recipe spreads.

In January, a task force of federal, state and local police on the Upper Peninsula was formed to tackle the cat problem.

"We believe this is where the core of the problem is," Lt. Steve Herner of the Michigan State Police said recently.

No state law specifically prohibits methcathinone, although its use is a violation of federal law. The Michigan Legislature is considering a bill that would put methcathinone on the state's list of controlled substances.

There are several reasons for the concern that cat will continue its spread: The ingredients can be legally and easily purchased, production is cheap and profit potential high, and the chemical process is so simple that it can be done in the back of a mobile van or truck, making detection by police more difficult.

Very little is known about cat except that it is highly addictive and that there have been frightening effects on users. People have reported seizures, feelings of paranoia, heart palpitations, sleeplessness, hallucinations and an inability to eat, leading to massive weight loss.

One cat addict with an artificial leg and a glass eye lost so many pounds that his leg no longer fit and his eye dropped out when he bent over, police said.

A Russian doctor who is the only cat authority known to Michigan officials recently gave a five-hour lecture in Lansing to law-enforcement officials and doctors.

Methcathinone was patented in Britain in 1957 by a pharmaceutical company that planned to use it as a diet aid and anti-depressant. Plans were scrapped when it was found to be too addictive.

In the 1970s, the formula leaked out in Russia and spread like wildfire, said Dr. William Short, who studies addiction at Marquette General Hospital and who attended the Russian doctor's lecture.

Making cat is a simple process of mixing, washing and heating of the ingredients. The creator is left with a powder that is snorted, eaten, mixed with water, and injected or absorbed through a patch on the skin.

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<DIALOG File 496: (c) 1993 Sacramento Bee>  
07176033

**POWERFUL NEW DRUG SWEEPING RURAL MIDWEST**

Sacramento Bee (SB) - THURSDAY, June 24, 1993

By: Mike Nichols Milwaukee Journal

Edition: METRO FINAL Section: MAIN NEWS Page: A13

Word Count: 497

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## TEXT:

MILWAUKEE - Imagine a drug so powerful that one high lasts 20, maybe 25 times as long as the one you'd get from cocaine. And so addictive that people take it for days, even a week at a time, never eating or sleeping.

Then imagine that it's incredibly profitable -- just the kind of drug for which organized gangs would kill. And one more thing: It is almost as easy to make as a cake. Just order the ingredients through the mail, or stop by your local hardware store.

Well, it exists. It's a little-known stimulant is called methcathinone. On the country roads and small-town streets of northern Wisconsin and Michigan where it is most popular, they call it "cat."

Federal authorities have few doubts that cat will soon be making its way to northern Midwest cities. If it hasn't already. Because a \$400 or \$500 investment can yield tens of thousands of dollars of profit, the migration seems inevitable.

"It's got all the flavor that the entrepreneurs are looking for," said Kelly Snyder, head of the federal Drug Enforcement Administration in Wisconsin.

The ingredients themselves are almost as common. The key is ephedrine, a drug commonly sold in tablet form and most often ingested by truckers trying to stay awake for the long haul.

One of the few minor impediments is that thousands of the tablets are needed to make just a few ounces of the drug, which is usually snorted. But ephedrine is readily and legally available from distributors through the mail.

With the exception of one other ingredient usually available only in chemical supply shops, everything else needed can be picked up at the local hardware store.

The process is so simple federal authorities are careful not to divulge the whole recipe. But they have little doubt that plenty of people have the ability to make it.

Drug enforcement investigators say two chemistry students at the University of Michigan first began making the drug a few years ago. Since then, use of cat has been spreading across the Upper Peninsula of Michigan and into Wisconsin.

Ed Panick, who has pleaded guilty to taking part in a conspiracy to distribute cat, has said that he first learned of cat last summer while visiting Iron River, Mich. Soon he was taking the drug two or three times a week, and within a few months he was manufacturing it himself.

While a cocaine high often lasts only 15 or 20 minutes, a cat high can last seven to 14 hours, said Robert Block, head of the Wisconsin Department of Justice's drug identification lab.

Users become hyperactive and paranoid and will not eat or go to bed. They become anorexic and, finally, often only when the drug runs out, fall asleep for days on end. As a result, they often experience severe weight loss.

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One informant told the federal drug agency that some people are already mixing cat with cocaine. They have a new name for the result: "Wildcat."

<DIALOG File 496: (c) 1993 Sacramento Bee>  
06771064

**NEW DRUG PACKS POTENT HIGH, HOOK STUDENTS' CREATION CALLED MORE ADDICTIVE THAN HEROIN, CRACK COCAINE**

Sacramento Bee (SB) - SUNDAY, September 27, 1992

By: Scott Bowles Detroit News

Edition: METRO FINAL Section: MAIN NEWS Page: A10

Word Count: 587

TEXT:

DETROIT - It began last year as a chemical experiment in rural pockets of Michigan's western Upper Peninsula, an attempt by college students to duplicate the modest high of a chewable narcotic leaf known as khat.

But what emerged from their makeshift labs is a powdered drug so potent that it dwarfs crack cocaine and heroin in its addictive punch, authorities say.

Narcotics agents with the Detroit police and the Wayne County Sheriff's Department have been put on alert for methcathinone -- or "cat," as it was dubbed by the students who created it.

The synthetic stimulant, recently placed on the U.S. Drug Enforcement Agency's emergency list of controlled substances, can generate a high that lasts up to six days, agents say.

Cat marks the latest salvo from a new generation of drug dealers who are avoiding the risk of smuggling narcotics by producing their own. In addition to cat, college and street-level chemists have also recently introduced a synthetic version of heroin, police say.

"There seems to be a lot of young, bright chemists who are getting into the business," said Wayne County Sheriff Robert Ficano. "They've got no concern for what they are producing, and this time, I don't think they have any idea they're playing with fire."

"If you tried the purest stuff for the first time, there's a 99 percent chance you'd do it again, and again, until you're hooked. It's about as powerful as you can get."

A volatile elixir of pharmaceuticals and household cleansers, cat usually contains small doses of Drano or battery acid, which acts as a catalyst. The drug reportedly produces a "stimulant" high, creating feelings of exhilaration, heightened awareness and invincibility. Cat sells for about \$100 a gram and is typically inhaled, though some melt and inject it.

"You'd think people would be frightened to shoot up with drain cleaner," Ficano said. "But it's a high they'll do anything for."

Michigan state police say cat was first synthesized by college students, although they haven't traced its roots to a specific university. Other amateur  
(cont. next page)

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chemists then began to copy the formula.

Cat's creators were trying to clone a relatively mild narcotic. The khat leaf, used for centuries in the Mideast, has been sold over the counter in some Detroit stores because it has gotten by U.S. customs officials who don't realize it is a controlled substance.

The leaf, which also produces a burst of energy, has the lowest rating for a controlled substance: A person caught with small amounts of the drug will receive only probation.

Federal penalties for its synthetic counterpart, however, are harsh. Depending on the quantity, penalties for trafficking cat range from 10 years to life in prison, and up to a \$1 million fine. Punishment for possession of the drug is up to one year in prison and a fine of \$1,000 to 250,000.

Synthetic drugs pose an unusual threat to police, who are trained to fight dope dealers, not manufacturers.

"They're becoming one of our biggest problems," said Detroit Police Comr. Rudy Thomas, head of the narcotic division. "If we could solve the crack and heroin problem tomorrow, we'd still have to deal with these chemists. They're like mad scientists."

Those scientists have recently developed Fentanyl, a synthetic form of heroin that is 20 to 30 times more potent than its predecessor. Thomas said the manufacturers tested Fentanyl by giving free samples to drug addicts, and monitoring the effects. If the addict suffered harmful effects -- or died -- the drug went back to the lab for revisions.

<DIALOG File #98: (c) 1993 Detroit Free Press, Inc.>  
07011768

**CLOSE A DRUG LOOPHOLE**

Detroit Free Press (FP) - WEDNESDAY March 31, 1993

Edition: METRO FINAL Section: EDP Page: 8A

Word Count: 134

MEMO:

FROM OUR READERS

TEXT:

Your March 23 article "Cheap, potent drug spreads from UP" offered readers a compelling view of the methcathinone epidemic. I have sponsored legislation that would begin to address this problem.

The measure would add the highly addictive substance, also known as cat, to the list of drugs prohibited in Michigan. The recreational drug was placed on the federal list of controlled substances in 1992. Michigan law should be strengthened to echo the forceful federal regulations.

Under my bill, individuals convicted of making or delivering cat would be guilty of a felony, punishable by a maximum seven-year prison sentence and a \$5,000 fine. Possession also would be a felony, punishable by as much as two years' (cont. next page)

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imprisonment and a fine of as much as \$2,000.

Underground chemists have escaped prosecution by making small modifications in the chemical structure of a particular drug, so that the new compound was not covered by controlled substance statutes. By closing these loopholes, we would help police and prosecutors overcome clever attempts to circumvent the law.

Beverly A. Bodem

Michigan House of Representatives

106th District

Albena County

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<DIALOG File 498: (c)1993 Detroit Free Press, Inc.>  
07010606

*CHEAP, POTENT DRUG SPREADS FROM UP IT'S HIGHLY ADDICTIVE, DANGEROUS*

Detroit Free Press (FP) - TUESDAY March 23, 1993

By: JIM SCHAEFER Free Press Staff Writer

Edition: METRO FINAL Section: NWS Page: 3A

Word Count: 1,791

TEXT:

MARQUETTE - For two and a half years, Vince Swenor snorted the seductive, off-white powder up his nose, and with each power-packed hit the mysterious drug reeled him in tighter.

Swenor, seeking to spark up his life in the Upper Peninsula, had tried cocaine. But this wasn't cocaine. This was something new, something more interesting, something that Swenor created at home with common chemicals, some jars and rubber tubes.

In mid-1990, two friends began making the drug at Swenor's house and "like a good cookie recipe," he said, the formula spread around the Marquette area. It backed a wallop like no other drug that Swenor had tried.

"I thought it was the greatest thing in the world," Swenor, a soft-voiced, 24-year-old unemployed man, said last week. "I could make it in my own house, never run out. I had it made."

But with frightening speed, the strange powder had Swenor helpless.

He referred to it by its street name, cat, and by the time he learned what was used to make the drug, Swenor couldn't stop doing it even though he was shocked. Cat is made with battery acid, paint thinner, drain cleaner, muriatic acid, other assorted poisons and over-the-counter drugs.

Police laboratory scientists had no idea what cat was when it popped up in the UP a couple of years ago. After the first seizure of the drug in early 1991, it took two weeks of analysis to identify it. The veteran state police chemist who finally rooted out cat's scientific name -- methcathinone -- still had never heard of it.

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## CAT (METHCATHINONE)

5/5/1

03560037

93510102

Drug more powerful, addictive than cocaine emerges in Midwest  
Nichols, Mike

Chicago Tribune (CT) Sec EVENING, p 2, col 5 Jun 24, 1993

ARTICLE TYPE: News

ARTICLE LENGTH: Medium (6-18 col inches)

AVAILABILITY: UMIACII CATALOG NO.: 60190.00

A drug called methcathinone, or cat, is more powerful than cocaine, highly addictive and can be made with easy-to-get ingredients. Use of the drug is spreading across Michigan's Upper Peninsula and into Wisconsin. There also has been some evidence of its use along the Illinois-Wisconsin line.

DESCRIPTORS: Drugs

GEOGRAPHIC NAME: Michigan; Wisconsin; Illinois

5/5/3

02905656

92718282

Scary Cat: New Drug Creeps in from U.P.  
Bowles, Scott

Detroit News & Free Press (DNF) Sec A, p 1, col 1 Sep 27, 1992 ISSN: 1055-2758

ARTICLE TYPE: News

ARTICLE LENGTH: Long (18+ col inches)

AVAILABILITY: UMIACII CATALOG NO.: 60496.00

Narcotics agents with the Detroit Police and Wayne County MI Sheriff's Office have put on an alert for Methcathinone, or 'cat' as it has been dubbed. The synthetic stimulant was created in 1991 as a chemical experiment in pockets of the Upper Peninsula to duplicate the modest high of the chewable narcotic known as krat.

DESCRIPTORS: Drug trafficking; Drugs

GEOGRAPHIC NAME: Detroit Michigan; Upper Peninsula-Michigan; Wayne County Michigan

5/5/4

02869006

92681616

Cops Fear Speed-Like Drug

Detroit News (DN) Sec B, p 6W, col 4 Sep 2, 1992 ISSN: 1055-2715

ARTICLE TYPE: News

ARTICLE LENGTH: Medium (6-18 col inches)

AVAILABILITY: UMIACH CATALOG NO.: 60496.00

Authorities in Michigan's Upper Peninsula say the spread of the illegal drug methcathinone can be traced to an Ann Arbor man's pharmaceutical knowledge gone awry. Methcathinone, known as CAT, is chemically similar to methamphetamine or speed.

DESCRIPTORS: Drugs

GEOGRAPHIC NAME: Upper Peninsula-Michigan

Post-It brand fax transmittal memo 7671 # of pages 2

To	Patricia
Co	Levy Assoc IL PA-2
Dep	ALB-106157
Fax #	708-233-1111
From	KIM BRYAN
Cor	505 E 1115
Phone #	
Fax #	

2/7/1

13652934 DIALOG File 47: MAGAZINE INDEX THIS IS THE FULL TEXT

The new drug in town. (methcathinone abuse and sales in Michigan)

Glastris, Paul

U.S. News & World Report: 7/14 (2002) April 20, 1993

SOURCE FILE: MI File 47

ISSN: 0041-5537

Illustration: photograph

AVAILABILITY: FULL TEXT Online LINES COUNT: 00061

GEOGRAPHIC CODE: NNUSCM1

GEOGRAPHIC LOCATION: Michigan

ABSTRACT: Twenty-eight illegal methcathinone (cat) labs have been raided in Michigan since 1991. 'Cat' is an amphetamine similar to methamphetamine. Because the drug is easy and inexpensive to produce, police are concerned that sales could spread throughout the nation.

DESCRIPTORS: Amphetamines--Marketing; Michigan--Crime

MARQUETTE, MICH. - In the winter of 1991, a police informant left the second-floor apartment of a squat brick building in this college town, carrying a quarter gram of cracky off-white powder in a small paper pouch. The informant called the powder "cat" and claimed it was a brand-new drug, more potent than crack cocaine. Lt. Richard Killins of the Michigan State Police was skeptical: Drug fads start in California, he thought, not in Michigan's Upper Peninsula. Nevertheless, Killins's men sent the sample to the lab, unaware that it was the first sign of a devastating new drug scourge that federal officials now say could threaten the entire nation. And the sad part is that the spread of cat might have been prevented.

The substance was methcathinone, an obscure but powerful amphetamine never before seized in the United States but widely abused in, of all places, the former Soviet Union. Chemically, the drug is related to the feisty stimulant khat, chewed throughout Somalia. It is also similar to methamphetamine, a type of speed known on the street as "crystal meth."

Cat fight. Methcathinone was so new, however, that no law specifically forbade it. So the police, working with agents from the federal Drug Enforcement Administration, swarmed out the second-floor apartment and tried to gather evidence to bring charges under special umbrella federal drug laws. Meanwhile, inside the apartment, batch after batch of cat was being cooked up by several Northern Michigan University students, one of them a chemistry professor's son suspected of having gotten the recipe from an acquaintance in Ann Arbor.

After the students had moved to two separate locations, police and DEA agents raided the labs. But federal prosecutors declined to issue arrest warrants for six months, arguing that they needed more evidence plus clearance from the Justice Department in Washington. That may have been a strategic miscalculation. After the delays, says one officer, the students "had this arrogant attitude, like they'd beat the system." Not only were they still making cat but they continued to sell the recipe all over the Upper Peninsula. "Everyone thought it was legal," adds one of the students, now under indictment. Today, the use of cat has reached near epidemic proportions in Michigan, where 28 cat labs have been raided since 1991. This week, Gov. John Engler will sign a bill to outlaw cat in Michigan. Unfortunately, the drug has already spread to Wisconsin and Washington State.

It may have started with middle-class youth, but cat became popular with people like Dave Lawler (not his real name), a construction worker and ex-convict. Lawler went on five-day binges, followed by days of sleep. "The buzz was like coke, only much longer," Lawler recalls fondly. "You felt totally hyper, and everything you did was fun." Such "fun" included jumping off 70-foot cliffs into mounder-strewn Lake Superior.

**Side effects.** The drug took its toll. Lawler felt paranoid. Unable to eat, he dropped 40 pounds. His sinuses became caked with blood from snorting the drug. His mouth always felt dry and thumb-nail-size flakes of skin hung from his lips. Even his perspiration smelled of cat. Only when Lawler ran out of money, having necked all his possessions (including his mother's stereo), did he finally enter a rehab program.

Of course, police and the media have hyped other drugs, like "ico" (a potent form of methamphetamine), as the next crack only to find that the kids fizzled. Cat, however, may prove different because it is so easy to make. All that's required is a Mason jar, some hardware-store chemicals and a certain over-the-counter cold medicine. The profit potential is huge: Just \$500 worth of ingredients can yield a kilo of cat, with a street value of \$15,000. While those who brew it currently consume most cat, federal authorities fear that outlaw motorcycle gangs that now dominate the methamphetamine market will start peddling cat. Says Killips: "Sometimes I get nostalgic for the days when all we had to worry about around here was coke and marijuana."

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08543905 93253905

'Cat': methcathinone--a new drug of abuse (letter)

Goldstone MS

JAMA (UNITED STATES) May 12 1993, 269 (19) p2508, ISSN 0098-7484

Journal Code: KFR

Languages: ENGLISH

Document type: LETTER

JOURNAL ANNOUNCEMENT: 9108

Subfile: AIM: INDEX MEDICUS

Tags: Human

Descriptors: \*Proprioprenones; \*Substance Abuse

CAS Registry No.: 0 (Proprioprenones); 5650-44-2 (monomethylpropion)

1/5/2

06230443 37204443

Methcathinone: a new and potent amphetamine-like agent.

Glennon RA; Yousif M; Narman N; Kalix P

Pharmacol Biochem Behav Mar 1987, 26 (3) p547-51, ISSN 0091-3057

Journal Code: P2Q

Contract/Grant No.: DA 01542

Languages: ENGLISH

Document type: JOURNAL ARTICLE

JOURNAL ANNOUNCEMENT: 5708

Subfile: INDEX MEDICUS

The purpose of the present investigation was to examine the effect of N-monomethylation of phenylisopropylamine derivatives on amphetamine-like activity. In tests of stimulus generalization using rats trained to discriminate 1.0 mg/kg of (+)-amphetamine from saline, the N-monomethyl





# UPDATE ON METHCATHINONE OR "CAT"

They cook it in hotel rooms, cars, houses and sheds. The materials and chemicals needed to produce it are easy to obtain and legal to purchase and possess. Some recovering addicts claim to have been addicted to the drug within 48 hours. It's known as Cat on the streets, and it has law enforcement professionals on every level fighting to stop its spread across the country.

## WHAT IS CAT?

Cat is the street name for the highly addictive illegal drug methcathinone. It is usually homemade from ingredients, including dangerous acids, obtained with little difficulty in most communities.

Users are drawn to Cat because it produces a burst of energy and a feeling of invincibility, accompanied by a state of well-being and euphoria. However, users experience a tremendous collapse or crash physically and psychologically, after binging on the drug.

Methcathinone is a chemical synthesis of cathinone, a central nervous stimulant. The drug produces amphetamine-like effects, much like methamphetamine. Because of its similarity to methamphetamine in chemical structure and metabolism, researchers believe that methcathinone has the same neurotoxicity.

The drug was patented in Great Britain in 1957 as a diet aid and antidepressant; however, it was never marketed because of its highly addictive qualities. The formula for methcathinone leaked out in the 1970s, and Cat kitchens sprung up across Russia. According to Russian doctors, 55 percent of all drug addicts in Russia have used methcathinone, known as "Jen" in their country.

The first instance of illegal manufac-

ture of Cat in the United States is believed to have occurred in Ann Arbor, Michigan, in the late 1980s or early 1990s. However, the drug is more frequently found in the Upper Peninsula (UP) of Michigan. It is from the UP that the drug has spread throughout Michigan and into northern Wisconsin.

## PHYSICAL AND PSYCHOLOGICAL EFFECTS OF CAT

Users of Cat tend to "binge" when using this drug. One hit of the drug produces a high that can last up to three hours. Users quickly progress to the point where they binge on the drug for several days. During the initial euphoric burst of energy, Cat users can be quite hyperactive and talkative. However, longtime users have reported that binge usage also brings on paranoia, hallucinations and excruciating nervousness and anxiety. Appetite drops off or disappears entirely during the binge, often leading to long-term and massive weight loss. Users forget to sleep and to drink. As the body becomes dehydrated and fatigued, the user can also experience heart palpitations, headaches, stomachaches and seizures.

A binge will end usually because the supply of methcathinone has been exhausted. Users become depressed, irritable and sometimes violent.

When sleep finally comes, it may last 24 hours or more. Rest does not always restore a sense of well-being, however. Users may feel drained of energy for several weeks.

## HOW IT IS USED

Cat is typically snorted, like cocaine, although injection by needle is preferred by some. It is also possible to take Cat orally, by mixing it with a beverage such as coffee or carbonated drinks.

## THE INGREDIENTS AND APPEARANCE OF CAT

The recipe for methcathinone includes some relatively benign ingredients but also the following:

- Acetone, a paint solvent
- Lye, found in crystal drain cleaner
- Sodium dichromate, commonly used to refine petroleum
- Sulfuric acid, usually in the form of battery acid
- Sodium hydroxide, obtainable over the counter as lye-based granular drain cleaners
- Toluene, a paint thinner
- Muriatic acid, used by masons to scrub dried mortar off the face of bricks

The chemicals used to manufacture Cat pose another threat to the person cooking the drug. Both acetone and toluene are highly flammable and potassium dichromate, if inhaled, can be fatal. Users have experienced chemical burns on their arms and face from the acids used in production.

When properly made, the final product is a crystalline powder whose color may range from white to yellow. Homemade Cat has an inconsistent texture and can be chunky. Cat does have a slight chemical smell.

## THE RISK TO CHILDREN

While Cat appeals mainly to the young, their 20s and 30s, there have been reports as young as 15. Because the drug is relatively inexpensive, law enforcement authorities are concerned that it

## ASSISTS LOCAL OFFICIALS IN ESTABLISHING THEIR DRUG ABUSE PREVENTION AND EDUCATION PROGRAMS

former trainers for the Alcohol who were in Cincinnati in April for the Parent Resource Institute for Drug Education (PRIDE) world conference. Dr. E. Don Nelson, Director of the Ohio Prevention & Education Resource Center (OPERC) and Associate Director of the Drug & Poison Information Center, traveled to Parana, Brazil, to talk with Department of Health professionals, the Parana Medical Association, Department of Education officials, government officials, community workers and others involved in the process of establishing alcohol and other drug prevention programs throughout that area. Over a two week period, Dr. Nelson gave numerous presentations on topics including the:

1. Results of local research on the education of intravenous drug addicts and their sexual partners regarding the risks of HIV (Human Immunodeficiency Virus) transmissions during intravenous drug-use practices and unprotected sex;
2. Operation and scope of all of the Ohio Prevention and Education Resource Centers, including a discussion of individual available resources, alcohol and other drug prevention curricula materials developed by OPERC;
3. Use of psychotherapeutic medications in the treatment of chemical dependency.

Dr. Nelson's visit was well received, with extensive local newspaper and television coverage of his presentations. The goal of those involved with substance abuse prevention and education in Parana is to establish an OPERC-type network in Brazil. Resource materials from the Cincinnati OPERC will form the core of an alcohol and other drug prevention and education collection at the Jaime Lerner Institute in Parana. ❖

### \* METHCATHINONE "CAT"

According to an article in the October, 1993 issue of *Emergency Medicine News*, methcathinone has made its way to the United States.<sup>1</sup> Appearing in the former Soviet Union as early as 1982, it is now one of that country's most popular drugs of abuse. Known as "cat," this illicit designer drug is easily made in clandestine laboratories.\* To date, the use of cat has been reported in Wisconsin, Cleveland, Detroit, New York, Seattle, and is reported to be spreading. The effects are similar to methylenedioxymethamphetamine (also known as MDMA and "Ecstasy"), but central nervous system stimulation appears to be more dominant than the hallucinogenic effects at "normal" doses, estimated to be 80 to 250 mg.<sup>2</sup> People using the drug claim to experience a euphoric high, increased alertness and creativity, as well as increases in sexual arousal. As dosage or time of usage increases, the psychological symptoms become more prevalent and may include visual and auditory hallucinations, anxiety, disorientation, paranoia and aggression. Physical side effects can include tachycardia and hypertension, changing to bradycardia and hypotension, mydriasis, horizontal and rotary nystagmus, hyperthermia, seizures and rhabdomyolysis, occurring most commonly with high doses. Death due to ventricular fibrillation has occurred.

Binge use over several days is common, followed by a "crash" period. Long-term use of cat can lead to paranoid psychosis, decline in personal hygiene, muscle wasting anorexia, abnormal liver functions and hepatomegaly, antisocial behavior and Parkinsonism. Since the preferred method of administration is snorting, sores around the nose may develop. (Cat can also be injected, smoked or ingested.) Additional toxicities can occur from the individual chemicals used to manufacture the drug, residues from incomplete reactions and the subsequent contaminants. Heavy metal poisoning, along with causticity problems, are relatively common. One such heavy metal is sodium dichromate, which causes the characteristic color in "Green Cat."

Withdrawal symptoms can be severe. Cardiovascular collapse with hypotension and bradycardia, lethargy, irritability, miosis, coryza, myalgias, muscle spasms and arthralgias are common. Treatment of both acute overdose and withdrawal consists primarily of symptomatic support. Benzodiazepines can be used for agitation, hallucinations, or seizures. Beta blockers should be avoided. In terms of toxicology screening, chronic use of methcathinone produces a urine screen that is negative for amphetamines but positive for both phenylpropanolamine and ephedrine. Acute use results in a negative urine screen for all three substances. ❖

\* Cat was made a Schedule I controlled substance by the U.S. Drug Enforcement Agency in 1992. While chemically similar, "cat" should not be confused with "khat." (Other spellings for khat are Q'at, Chat and Gat.) Khat is a naturally occurring substance obtained from the *Catha Edulis* plant common to the East Africa and the Arabian Peninsula. The plant contains two amphetamine-like stimulant substances called cathine and cathinone that are released by chewing the twigs and leaves. It most recently gained media attention as a common substance of abuse in Somalia and other surrounding countries.

1. Carrell S. Methcathinone: The next drug epidemic? *Emergency Medicine News* 1993;15(10):1,18-19,24.

2. Emerson TS, Cisek JE. Methcathinone: A Russian designer amphetamine infiltrates the rural midwest. *Ann Emerg Med* 1993;22:1897-1903.

## ENVIRONMENTAL EFFECTS

Illicit production of methcathinone produces a considerable toxic waste as a by-product. Although producers of the drug typically make it for use in a close-to-home market, they show little concern for the pollution they spread.

The toxic waste left after the finished product emerges is often dumped in waterways, contaminating fish, well-water and wildlife.

If instead it is poured down the drain, it contaminates the sewer systems. If simply dumped on vacant land, it contaminates the soil used for crops or grazing or land that may be built on by homeowners.

There is no safe way to dispose of the toxic waste except through legitimate toxic waste disposal facilities.

## CAT AND THE LAW

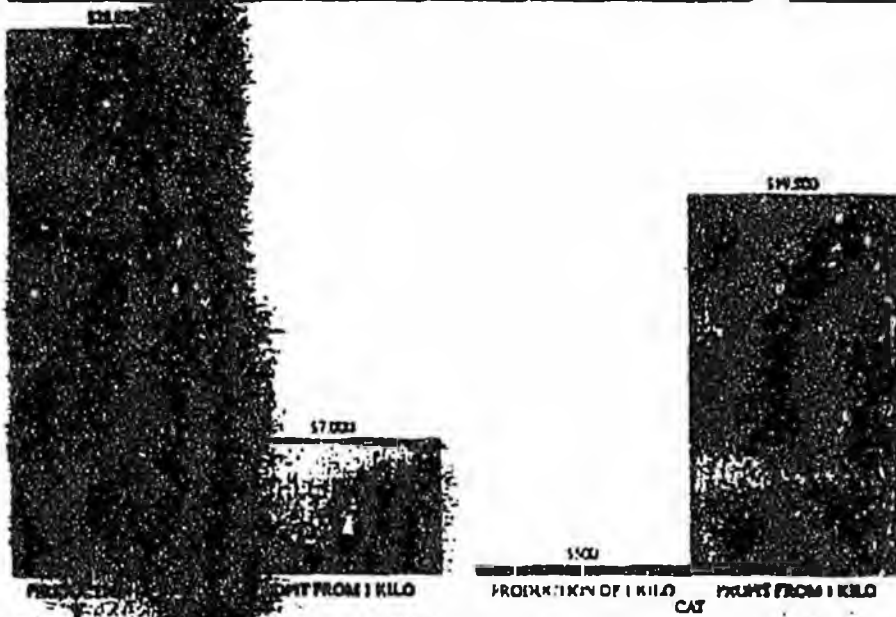
Persons who manufacture methcathinone or assist others in doing so, perhaps by serving as go-betweens to

buy ingredients, are liable under a number of federal statutes. Manufacturing or possession with intent to distribute, for instance, is a violation of Section 841 (a)(1) of Title 21 of the United States Code and is punishable by a prison term of up to 20 years and a fine of up to \$1 million.

## TREATING THE CAT ADDICT

Methcathinone is a very powerful stimulant and usage may produce paranoid psychosis, hyperactivity and depression. As a person undergoes withdrawal from Cat, medication must sometimes be given to offset these conditions. There have been cases of Cat-induced psychosis outside the United States and antipsychotic medications were prescribed during detoxification. If agitation and hyperactivity continue during the withdrawal process, benzodiazepines (a type of tranquilizer) have proved to be effective. Those who have treated Cat addicts recommend that the person enroll immediately in a comprehensive treatment program after detoxification.

## THE PROFIT MARGIN OF CAT: A COMPARISON FOR LAW ENFORCEMENT



Law enforcement has voiced concern about the potential for high profit Cat offers. Because the ingredients needed to produce Cat are cheap and legal, a kilo of the drug can be made with a \$500 investment. If each gram were sold on the street for \$35, the seller could net a \$19,500 profit. Compare that with the money needed to make a kilo of crack: It takes a \$28,000 investment to make a kilo of crack. At the current street price of \$35 for a gram-size rock, a dealer could only expect to make a \$7,000 profit.

Source: The Michigan Substance Abuse and Traffic Safety Information Center and National Families in Action's Inner-City Project on Suburban Homes, 1993.

## THE LATEST INFORMATION ON CAT

The Drug Enforcement Administration (DEA) has recently published a pamphlet on Cat. To order, please write to:

Demand Reduction Section  
Drug Enforcement Administration  
Washington, DC 20537

## THE DIFFERENCE BETWEEN KHAT AND CAT

When U.S. troops were deployed in Somalia, the world was reintroduced to an ancient drug popular in East Africa and Southern Arabia, khat. Khat, pronounced "cot," is a natural stimulant found in the *catha edulis* shrub. Fresh khat leaves are typically chewed like tobacco and produce a mild cocaine- or amphetamine-like euphoria. Used for hundreds of years as a recreational and religious drug, many Somalians chew the leaves which users claim sharpen thinking and lessen hunger.

Fresh khat leaves contain a psychoactive ingredient known as cathinone. Methcathinone or Cat is a synthetic form of cathinone. Just as the natural stimulants found in the coca leaf were synthesized to produce cocaine, the naturally occurring cathinone has been chemically-altered to create a much more powerful and addictive drug than that found in nature.

The information for this update was supplied by the U. S. Drug Enforcement Administration, the Michigan Substance Abuse and Traffic Safety Information Center, The National Institute on Drug Abuse, The National Clearinghouse for Alcohol and Drug Information, Western District of Wisconsin U.S. Attorneys' Office, *Journal of the American Medical Association*, Vol 269, No 19, p 2508, and *Pharmacology Biochemistry and Behavior*, Vol 26, 1987, pp 547-551.

## UPDATE ON METHCATHINONE OR "CAT"



# Alaskans for Drug-Free Youth South Central Affiliate

P. O. 243704, Anchorage, Alaska 99524-3704  
Phone: 907-247-2273, 1-800-478-2273, fax 907-247-2232

March 5, 1994

## EXECUTIVE DIRECTOR

Lynda Adams

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Senator Johnny Ellis  
State Capital, Room #9  
Juneau, Alaska 99801-1182

Dear Senator Ellis:

On behalf of the Alaskans for Drug Free Youth - South Central, Board of Directors I would like to offer our determined and persistent support for Senate Bill 220.

Methcathinone ("Cat") is such a serious threat to the youth and young adults of Alaska it should be considered for Schedule I, as it is in the Federal Statutes, but your legislation will provide the safeguards necessary to prevent needless suffering.

If we can provide further assistance to ensure passage of Senate Bill 220, please let us know.

Sincerely,

Peggy Beitia, President  
Alaskans for Drug Free Youth



LETTERS OF SUPPORT

An A

ments for Drug-Free Youth

# Alaska Association Chiefs of Police



February 7, 1994

Senator Johnny Ellis  
State Capital, Room #9  
Juneau, Alaska, 99801-1182

Dear Senator Ellis:

On behalf of the Alaska Association of Chiefs of Police I would like to offer our support for Senate Bill 220.

It is important that as new drugs are developed and marketed, they be properly classified and included on Alaska's schedules of controlled substances. Unfortunately, the use of illegal drugs and the illegal abuse of prescription drugs remain a significant problem throughout the state.

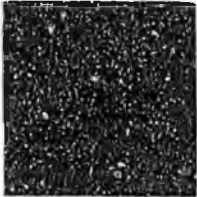
If we can provide any assistance in the passage of this bill please let me know.

Very truly yours,

A handwritten signature in black ink, which appears to read "Ronald L. Otte", is written over a horizontal line.

Ronald L. Otte  
President

RLO/lp



# ALASKA STATE MEDICAL ASSOCIATION

4107 Laurel Street • Anchorage, Alaska 99508-5334 • (907) 562-2662

January 28, 1994

Senator Johnny Ellis  
Alaska State Legislature  
P.O. Box V (MS3100)  
Juneau, AK 99811

Dear Senator Ellis:

At a recent meeting of our Legislative Affairs Committee we discussed your Senate Bill 220 that would add the drug Methcathinone to schedule IIA of controlled substances. While this drug has not yet been an obvious problem in Alaska, it certainly has been elsewhere and we strongly favor this drug being controlled. If I can be of any assistance to you in passage of your bill, do not hesitate to contact me.

Sincerely yours,

Donald R. Lehmann, M.D.  
Chairman, Legislative Affairs Committee  
President, Alaska State Medical Association

CC: Byron Mallot

**JOHNNY ELLIS**  
SENATOR



STATE CAPITOL, ROOM 9  
JUNEAU, ALASKA 99801-1182  
(907) 465-3704  
FAX: (907) 465-2529

ALASKA STATE LEGISLATURE  
**SENATE**

Sponsor Statement for  
Senate Bill 220  
Add "CAT" to Schedule IIA Drug List

SB 220 amends schedule IIA of the Control of Substances List to include the substance Methcathinone, also known as "cat". "Cat" is more addictive than Heroin, more powerful than Cocaine, and is easy, inexpensive, and profitable to produce. Furthermore, it is not currently illegal in the State of Alaska.

Patented in 1957 by a pharmaceutical company in Great Britain as a diet aid and antidepressant, it was not introduced to the market because of its highly addictive nature. In the 1970's it began to be illegally produced in Russia where its use quickly reached epidemic proportions. In mid 1991 police agencies of Michigan's Upper Peninsula were confronted with wide spread use of "cat" which soon permeated the southern portions of the State as well as Wisconsin.

Cat is easy to make. The ingredients can be purchased by anyone and the production can be accomplished in a kitchen or the back of a van. For an investment of \$500 dollars a profit of up to \$20,000 may be realized. These three factors make the drug very attractive to drug dealers and organized street gangs and very dangerous to Alaskans.

Currently Alaskan law does not specifically prohibit this new and powerful drug. Cat's highly addictive properties pose a serious threat to Alaskans. With the passage of this bill Alaskan law enforcement will have the authority to protect Alaska's citizens.

I urge your support of Senate Bill 220. Thank you for your consideration.

# FISCAL NOTE

STATE OF ALASKA  
1994 LEGISLATIVE SESSION

No. 2  
Bill Version: SB 220  
(S) Publish Date: 2-14-94

Revision Date: \_\_\_\_\_ Dept. Affected: Public Safety  
Title: "An act amending schedule IIA of schedules  
to add the drug methcathinone common as 'cat'" BRU: Alaska State Troopers  
Sponsor: Senator Ellis Component: Detachments  
Requestor: S. STA COMPONENT SERIAL NO. 799

**EXPENDITURES/REVENUES: (Thousands of Dollars) (inflation not included)**

OPERATING	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00
PERSONAL SERVICES						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND & STRUCTURES						
GRANTS, CLAIMS						
MISCELLANEOUS						
<b>TOTAL OPERATING</b>	0.0	0.0	0.0	0.0	0.0	0.0
CAPITAL						
REVENUE FUND SOURCE:						

**FUNDING: (Thousands of Dollars)**

1002 Federal Receipts						
1003 GF Match						
1004 GF						
1005 GF/Program Receipts						
1006 GF/MHTIA						
Other						
<b>TOTAL</b>	0.0	0.0	0.0	0.0	0.0	0.0

Estimate of current year (FY 94) impact: \$ \_\_\_\_\_

**POSITIONS:**

FULL-TIME						
PART-TIME						
TEMPORARY						

ANALYSIS: (Attach a separate page if necessary.)

No fiscal impact upon the Alaska State Troopers is anticipated.

Changes in CSSB 220 (STA)  
reflect **NO FISCAL CHANGE** from the original  
fiscal note. This fiscal note is appropriate.  
2/9/94 date RCB Comte Aide (initial)

Prepared By: Francis C. Allan Phone: (907) 269-5691  
Division: Alaska State Troopers Date: 01/13/93  
Approved by Commissioner: [Signature] Date: 01/19/20  
Agency: Richard L. Burton, Dept. of Public Safety

PREPARER TO PROVIDE A  
For further dis

JR'S LEGISLATIVE OFFICE  
Legislative Office

FISCAL NOTE

No. 1  
 Bill Version: SB 220  
 (S) Publish Date: 2-14-94

STATE OF ALASKA  
 1994 LEGISLATIVE SESSION

Revision Date: January 13, 1994  
 Title: "...amending schedule IIA...controlled substances...to add...methcathinone..."  
 Sponsor: Senator Ellis  
 Requestor: Senator Ellis

Department Affected: Department of Law  
 BRU: Prosecution  
 Component: All  
 COMPONENT SERIAL NO. 0085 through 0090

EXPENDITURES/REVENUES:

OPERATING	FY 95	FY 96	FY 97	FY 98	FY 99	FY 00
PERSONAL						
TRAVEL						
CONTRACTUAL						
SUPPLIES						
EQUIPMENT						
LAND &						
GRANTS, CLAIMS						
MISCELLANEOUS						
TOTAL OPERATING	-0-	-0-	-0-	-0-	-0-	-0-

CAPITAL						
---------	--	--	--	--	--	--

REVENUE						
---------	--	--	--	--	--	--

FUNDING:

1002 Federal						
1003 GF Match						
1004 GF						
1005 GF/Program						
1006 GF/MHTIA						
OTHER						
TOTAL	-0-	-0-	-0-	-0-	-0-	-0-

POSITIONS:

FULL-TIME	-0-	-0-	-0-	-0-	-0-	-0-
PART-TIME						
TEMPORARY						

Estimate of current year (FY94) impact: -0-

Changes in CSSB220 (STA) reflect NO FISCAL CHANGE from the original fiscal note. This fiscal note is appropriate.  
2/9/94 date [Signature] Comte Aide (initial)

ANALYSIS: (Attach a separate page if necessary.)  
 Please see the attached analysis.

Prepared by: Richard I. Peques, Director  
 Division: Administrative Services Division  
 Approved by Commissioner: Bruce M. Botelho, Attorney General  
 Agency: Department of Law

Phone: 465-3672  
 Date: January 13, 1994  
 Date: January 13, 1994

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FISCAL NOTE

STATE OF ALASKA  
1994 LEGISLATIVE SESSION

BILL NO. SB 220

ANALYSIS CONTINUATION:

This bill adds the drug methcathinone, commonly known as "cat", to schedule IIA of the schedules of controlled substances. Methcathinone is a powerful hallucinogen that can have devastating effects on drug users and can cause extreme aberrant behavior. Moreover, this drug can be manufactured easily and inexpensively. As a schedule IIA drug, the penalty for manufacture or delivery of "cat" would be a class B felony and the penalty for possession would be a class C felony. We do not expect a significant new caseload by the approval of this bill and, consequently, there should not be a fiscal impact for the Department of Law. And, although an additional caseload is not expected, including "cat" in schedule IIA is important because of the danger to users and the public, and because the ease of manufacture.

**BILL NO:** SB 220

**DATE:** January 19, 1994

**TITLE:** "An Act amending Schedule  
IIA controlled substances. . .  
'CAT' . . ."


**CONTACT:** C.E. Swackhammer  
Deputy Commissioner  
465-4322

SB 220 amends AS 11.71.050B adding a new paragraph to include methcathinone or "cat". This is becoming a commonly abused controlled substance nationwide. Alaska's controlled substance statutes would allow law enforcement to address this change in the illicit drug trade with this amendment.

Methcathinone is a synthetically derived stimulant that was first developed and tested by the Parke-Davis Company 37 years ago. Research by the drug company dissuaded them from continuing development of methcathinone. This drug is similar to cocaine in its effects only many times stronger and longer lasting. The drug effects the central nervous system and may be as much as one and a half times stronger than other amphetamines. The drug is typically snorted, injected, or sprinkled on marijuana cigarettes for ingestion. The drug was first seen being widely abused in 1989 in the state of Michigan, since then it has spread throughout the midwest and to Hawaii. This is an extremely easy drug to synthesize and takes a very simple rudimentary lab facility.

In section one of the bill, the technical chemical name for methcathinone is used and then the phrase "also known as methcathinone, ephedrone, and cat". Ephedrone is not a name for methcathinone but is actually a precursor used to make methcathinone. It is also a precursor to making methamphetamine and "ice". The Department suggests that ephedrone should be addressed separately as a precursor chemical and that it should be deleted from this bill as it is not a street name for methcathinone.

The Department supports this bill.

  
Richard L. Burton  
Commissioner

Post-it brand fax transmittal memo 7071 # of pages 3

To: Marlene

From: Kimberly NMA

Subject: Legal Aves

Phone #: 258-8182

Fax #: 258-5571

Date: 4-5-2029

Act No. 25  
 Public Acts of 1993  
 Approved by the Governor  
 April 20, 1993  
 Filed with the Secretary of State  
 April 20, 1993

**STATE OF MICHIGAN  
 87TH LEGISLATURE  
 REGULAR SESSION OF 1993**

Introduced by Reps. Bodan, Benzano, Jamian, Kukuk, Dalman, Dolan, Gnodtke, Hammerstrom, McCarryda, Stille, McNutt, Garnatt, McMannus, Bandstra and Jayo  
 Reps. Agee, Anthony, Baude, Bender, Brackenridge, Bullard, Byron, Crissman, DeMars, Dobb, Dobronski, Fitzgerald, Freeman, Gagliardi, Gire, Goscinka, Harrison, Horton, Johnson, Middaugh, Middleton, Murphy, Nye, Olshove, Potata, Profit, Randall, Rhead, Rivers, Shepich, Shugars, Varga, Voorhees, Vorva, Wallace and Wetters named co-sponsors

**ENROLLED HOUSE BILL No. 4103**

AN ACT to amend section 7212 of Act No. 368 of the Public Acts of 1978, entitled as amended "An act to protect and promote the public health; to codify, revise, consolidate, classify, and add to the laws relating to public health; to provide for the prevention and control of diseases and disabilities; to provide for the classification, administration, regulation, financing, and maintenance of personal, environmental, and other health services and activities; to create or continue, and prescribe the powers and duties of, departments, boards, commissions, councils, committees, task forces, and other agencies; to prescribe the powers and duties of governmental entities and officials; to regulate occupations, facilities, and agencies affecting the public health; to regulate health maintenance organizations and certain third party administrators and insurers; to promote the efficient and economical delivery of health care services, to provide for the appropriate utilization of health care facilities and services, and to provide for the closure of hospitals or consolidation of hospitals or services; to provide for the collection and use of data and information; to provide for the transfer of property; to provide certain immunity from liability; to regulate and prohibit the sale and offering for sale of drug paraphernalia under certain circumstances; to provide for penalties and remedies; to repeal certain acts and parts of acts; to repeal certain parts of this act; and to repeal certain parts of this act on specific dates," as amended by Act No. 352 of the Public Acts of 1982, being section 383.7212 of the Michigan Compiled Laws.

*The People of the State of Michigan enact:*

Section 1. Section 7212 of Act No. 368 of the Public Acts of 1978, as amended by Act No. 352 of the Public Acts of 1982, being section 383.7212 of the Michigan Compiled Laws, is amended to read as follows:

Sec. 7212. (1) The following controlled substances are included in schedule 1:

(a) Any of the following opiates, including their isomers, esters, the ethers, salts, and salts of isomers, esters, and ethers, unless specifically excepted, when the existence of those isomers, esters, ethers, and salts is possible within the specific chemical designation:

- |                      |                      |                |
|----------------------|----------------------|----------------|
| Acetylmethadol       | Difenoxin            | Normymethadol  |
| Allylprodine         | Dimenoxadol          | Norlevorphanol |
| Alpha-acetylmethadol | Dimpheptanol         | Normethadone   |
| Alphameprodine       | Dimethylthambutene   | Norpipenoxol   |
| Alphamethadol        | Dioxaphetyl butyrate | Phenadoxone    |

Benzethidine	Dipipanone	Phenazapromide
Betacetylmethadol	Ethylmethylthambutene	Phenacemorphin
Betameprodine	Etonitazene	Phenoperidine
Betamethadol	Etoxeridine	Piritramide
Betaprodine	Furethidine	Proheptazine
Clonitazene	Hydroxypethidine	Propenidine
Dextromoramide	Ketobemidone	Propiram
Diampromide	Levomoramide	Racemoramide
Diethylthiambutene	Levophenacymorphan	Trimeperidine
	Morpheridine	

(b) Any of the following opium derivatives, their salts, isomers, and salts of isomers, unless specifically excepted, when the existence of these salts, isomers, and salts of isomers is possible within the specific chemical designation:

Acetorphine	Drotebanol	Morphine-N-Oxide
Acetylhydrocodeine	Etorphine	Myrophine
Benzymorphine	Heroin	Niccocodeine
Codeine methylbromide	Hydromorphone	Nicomorphine
Codeine-N-Oxide	Methyldesorphine	Normorphine
Cyprenorphine	Methylhydromorphone	Pbolcodine
Dacrorphine	Morphine methylbromide	Thebacon
Dihydromorphine	Morphine methylsulfonate	

(c) Any material, compound, mixture, or preparation which contains any quantity of the following hallucinogenic substances, their salts, isomers, and salts of isomers, unless specifically excepted, when the existence of these salts, isomers, and salts of isomers is possible within the specific chemical designation:

- 2-Methylamino-1-phenylpropan-1-one
  - Some trade and other names:
  - Methcathinone
  - Cr
  - Ephedrone
- 3,4-methylenedioxy amphetamine
  - 3-methoxy-3,4-methylenedioxy amphetamine
- 3,4,5-trimethoxy amphetamine
  - Bufotamine
  - Some trade and other names:
  - 3-(2-dimethylaminoethyl)-5-hydroxyindole
  - 3-(2-dimethylaminoethyl)-5-indolol
  - N,N-dimethylserotonin; 5-hydroxy-N-dimethyltryptamine
  - Mappine
- 2,5-Dimethoxyamphetamine
  - Some trade or other names:
  - 2,5-Dimethoxy- $\alpha$ -methylphenethylamine; 2,5-DMA
- 4-Bromo-2,5-Dimethoxyamphetamine
  - Some trade or other names:
  - 4-bromo-2,5-dimethoxy- $\alpha$ -methylphenethylamine; 4-bromo-2,5-DMA
- Diethyltryptamine
  - Some trade and other names:
  - N,N-Diethyltryptamine; DET
- Dimethyltryptamine
  - Some trade or other names:
  - DMT
- 4-methyl-2,5-dimethoxyamphetamine
  - Some trade and other names:
  - 4-methyl-2,5-dimethoxy- $\alpha$ -methylphenethylamine
  - DOM, STP
- 4-methoxyamphetamine
  - Some trade or other names:
  - 4-methoxy- $\alpha$ -methylphenethylamine; parmethoxy amphetamine;
  - FMA

**Ibogaine**

Some trade and other names:

7-Ethyl-6,6a,7,8,9,10,12,13

Octahydro-2-methoxy-3-methano-5H-

pyrrole (1, 2L, 3 acyl) b) indole

tubercularis looga

**Lycorpic acid diethylamide**

**Maribanna**, except as otherwise provided in subsection (2)

**Mecloqualone**

**Mescaline**

**Peyote**

**N-ethyl-8 piperidyl benzilate**

**N-methyl-8 piperidyl benzilate**

**Palloxybin**

**Palloxya**

**Thioprene analog of phencyclidine**

Some trade or other names:

1-(1-(2-chloro)cyclohexyl) piperidine)

2-thioxy analog of phencyclidine; TPCP

(d) Except as provided in subsection (2), synthetic equivalents of the substances contained in the plants, or in the resinous extractives of cannabis and synthetic substances, derivatives, and their isomers with similar chemical structure or pharmacological activity, or both, such as the following, are included in schedule 1:

(i)  $\Delta^1$  cis or trans tetrahydrocannabinol, and their optical isomers.

(ii)  $\Delta^8$  cis or trans tetrahydrocannabinol, and their optical isomers.

(iii)  $\Delta^{9a}$  cis or trans tetrahydrocannabinol, and their optical isomers.

(e) Compounds of structures of substances referred to in subdivision (d), regardless of numerical designation of atomic positions, are included.

(2) **Maribanna** and the substances described in subsection (1) (d) and (e) in schedule 1 shall be regulated as provided in schedule 2, if they are dispensed in the manner provided in sections 7335 and 7336.

(3) For purposes of subsection (1), "isomer" includes the optical, position, and geometric isomers.

Section 2. This amendatory act shall take effect May 1, 1993.

This act is ordered to take immediate effect.

Co-Clerk of the House of Representatives.

Secretary of the Senate.

Approved \_\_\_\_\_

Governor.