High purity crystal methamphetamine, commonly known as ice or glass, is becoming increasingly available in the United States. Asian criminal groups that traditionally distributed crystal methamphetamine in Hawaii and on the West Coast are now distributing the drug in other areas of the country as well. Moreover, Mexican drug trafficking organizations (DTOs) and criminal groups are becoming increasingly involved in the production and distribution of crystal methamphetamine, according to the Drug Enforcement Administration (DEA) and many state and local law enforcement officials.

**Background**

Crystal methamphetamine is a colorless, odorless form of d-methamphetamine, a powerful stimulant. It resembles glass fragments or shiny blue-white “rocks” of various sizes. Street names for the drug include batu, crystal, glass, hiropon, ice, shabu, shards, Tina, ventana, and vidrio. Crystal methamphetamine and powdered methamphetamine both contain the same active chemical compound; however, crystal methamphetamine typically has a higher purity level and may produce longer-lasting, more intense physiological effects. In small doses crystal methamphetamine can heighten alertness, stimulate physical activity, and suppress appetite. Chronic abuse can cause psychotic and violent behavior characterized by intense paranoia, visual and auditory hallucinations, and out-of-control rages.

Crystal methamphetamine often is compared to crack cocaine. The drugs produce similar physiological effects, are highly addictive, and typically are smoked using a glass pipe. Crystal methamphetamine also may be injected. Immediately after smoking or injecting crystal methamphetamine, abusers experience a brief, intense sensation, or rush, that is followed by a high that may last 12 hours or more. Crack cocaine abusers experience the same effects for only 20 to 30 minutes. Withdrawal symptoms associated with both crystal methamphetamine and crack cocaine include drug cravings, paranoia, and depression.

Crystal methamphetamine is produced using a “washing” technique that involves dissolving powdered d-methamphetamine in a solvent such as acetone or denatured alcohol. The mixture is allowed to evaporate, causing crystals to form around the edge of the container in which it is being mixed. Large crystals form when the solution evaporates at room temperature, and small crystals form when the solution evaporates in a cold environment such as a refrigerator or freezer. The crystals then are collected and dried, typically on a paper towel. The purity of the finished product varies depending on the amount of washing and the laboratory operator’s level of experience.
Risk of Explosion

Law enforcement personnel should exercise extreme caution when opening refrigerators and freezers found at crystal methamphetamine production sites. The vapors from the solvents used to convert powdered methamphetamine to crystal methamphetamine are extremely volatile and can accumulate in a refrigerator or freezer during the evaporation process. These vapors may explode when the appliance’s inside light activates as the door is opened. Law enforcement personnel should immediately unplug all refrigerators and freezers found at crystal methamphetamine laboratories to avoid this risk.

Source: Central Valley California High Intensity Drug Trafficking Area (HIDTA).

Crystal methamphetamine production and distribution traditionally have been associated with Asian criminal groups. These groups either produce the drug in the United States or smuggle it into the country from laboratory sites located in countries such as China, the Philippines, South Korea, and Taiwan. Since the mid-1990s Mexican DTOs and criminal groups have supplied powdered methamphetamine to Asian criminal groups in Hawaii and on the West Coast for conversion to crystal methamphetamine. Mexican DTOs and criminal groups now produce crystal methamphetamine in Mexico, California, and southwestern states and use their established transportation networks to distribute the drug throughout the United States.

Availability

Crystal methamphetamine was once available only in Asian American communities in Hawaii and to a lesser extent on the West Coast; however, the drug is now available in other communities and areas of the United States. Law enforcement officials attribute the increasing availability of crystal methamphetamine to the involvement of Mexican DTOs and criminal groups in the production and distribution of the drug, as well as to increasing Asian criminal group activity in other areas of the country. Further, DEA reports that Mexican DTOs and criminal groups are producing and selling crystal methamphetamine for significantly less than rival Asian criminal groups.

The purity of crystal methamphetamine generally is much higher than powdered methamphetamine, and crystal methamphetamine typically commands a higher price. Nationwide, the cost of 1-pound quantities of crystal methamphetamine ranges from $10,000 to $30,000, compared with $3,500 to $20,000 for powdered methamphetamine. The DEA Southwest Laboratory reports that the purity of powdered methamphetamine samples from Arizona, California, and Nevada averages 35 percent; however, it is not uncommon for the purity of crystal methamphetamine samples to exceed 90 percent.

### Table 1. Estimated U.S. Methamphetamine Prices, Powdered and Crystal, June 2002

<table>
<thead>
<tr>
<th>Quantity</th>
<th>Powdered</th>
<th>Crystal</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pound</td>
<td>$3,500–$20,000</td>
<td>$10,000–$30,000</td>
</tr>
<tr>
<td>Ounce</td>
<td>$350–$3,000</td>
<td>$1,000–$3,000</td>
</tr>
<tr>
<td>Gram</td>
<td>$20–$150</td>
<td>$100–$500</td>
</tr>
</tbody>
</table>

Source: DEA.

**Arizona.** According to the Peoria Police Department, the predominant drug problem in its jurisdiction is crystal methamphetamine, known there as shards. Crystal methamphetamine sells for approximately $8,000 per pound in the Phoenix area, which includes the city of Peoria. The DEA Phoenix Division reports that in its jurisdiction crystal methamphetamine, known as glass in Phoenix, typically is produced by independent Caucasian producers who operate small-scale laboratories that are capable of producing 1 ounce or less of the drug per production cycle.

**California.** During the first quarter of FY2002, law enforcement authorities dismantled two separate organizations distributing multipound quantities of methamphetamine and crystal methamphetamine in the San Francisco Bay Area. Most of the methamphetamine seized in those incidents exceeded 95 percent purity. In a separate incident the San Francisco Metropolitan Task Force,
National Drug Intelligence Center

with the assistance of the San Francisco Police Department, seized approximately 3 pounds of crystal methamphetamine with a purity of 98 percent. According to the DEA Western Regional Laboratory, the cleanliness and purity of the methamphetamine seized had not been seen for some time. It is unknown whether the methamphetamine was domestic- or foreign-produced, although several traffickers in the Bay Area appear to have mastered the process of washing methamphetamine to produce high purity crystal methamphetamine. According to DEA, 1 pound of crystal methamphetamine (known in that area as ice) sold for $13,500 to $18,000 in the San Francisco area in the second quarter of FY2002.

**MSM Used as a Cutting Agent**

MSM, the common commercial name for the chemical methylsulfonylmethane, also is known as methylsulfone and dimethylsulfone (DMSO$_2$).

As a cutting agent for methamphetamine, MSM offers many advantages. Pure MSM is an odorless, white, crystalline powder that is highly soluble and mixes readily with most substances without leaving a residue. MSM usually is added to methamphetamine during the final stages of production. Methamphetamine cut with MSM often appears to be uncut because after the chemicals are combined and the mixture cools, the MSM recrystallizes, resembling pure methamphetamine.

MSM distributors claim the substance is beneficial as a pain reliever and for animal and human connective tissue regeneration. Other alleged benefits for both animals and humans include the reduction of inhalant allergen reactions; relief from the symptoms of lung dysfunction; relief of leg and back cramps, muscle spasms, and general soreness; improved overall health; and elevated mood. MSM is readily available in powder and tablet forms at livestock feed and equine tack stores, “super” pet food chains, warehouse stores, human nutrition centers, and upscale grocery stores. MSM is available through mail order equine and veterinary supply catalogs and on numerous Internet sites.

According to the DEA Oakland Resident Office, the majority of methamphetamine investigations in its jurisdiction involve crystal methamphetamine. In the second quarter of FY2002, there were two large crystal methamphetamine seizures in the Oakland area. In one incident DEA agents seized approximately 3 pounds of crystal methamphetamine and 1 pound of MSM, which was being used as a cutting agent. In a separate incident the Oakland police seized approximately 2 pounds of crystal methamphetamine at a Hayward home. In that incident an estimated $50,000 worth of the drug was distributed on a weekly basis. According to law enforcement sources in southern Alameda County, Filipino and other Asian American traffickers are involved in the production and sale of crystal methamphetamine in their jurisdictions.

According to the Central Valley HIDTA, crystal methamphetamine production and abuse appear to be increasing in the middle valley. Filipino and Hawaiian drug traffickers are the primary groups responsible for methamphetamine production in the Central Valley (San Joaquin) region. According to the Central Valley HIDTA, in November 2001 a total of 7.5 pounds of crystal methamphetamine was seized in the area around Hanford in Kings County. During 2001 the Central Valley HIDTA task forces seized three crystal methamphetamine laboratories in the southern valley. In 2001 crystal methamphetamine sold for $12,000 to $15,000 per pound. According to the HIDTA, as a marketing ploy food coloring occasionally is added during the crystallization process, turning the methamphetamine black; “black ice” is supposedly more potent.

The DEA Los Angeles Division reports that crystal methamphetamine is readily available in the Los Angeles area, and availability is concentrated predominately in Riverside and San Bernardino Counties. Hispanic criminal groups and gangs continue to emerge as the dominant crystal methamphetamine distributors in its jurisdiction. These groups sell high purity crystal methamphetamine for significantly less than rival Asian groups. DEA reports that the Los Angeles area is the source of supply for the majority of crystal methamphetamine distributed in Hawaii. On October 11, 2001, agents
from the DEA Los Angeles Division seized 7 pounds of crystal methamphetamine in Van Nuys. The drugs were concealed in seven 1-pound bags in a water cooler. On December 4, 2001, 499 grams were seized in South Gate. On August 8, 2002, DEA announced that more than 57 individuals in Southern California were arrested in connection with a 2-year investigation involving the production and distribution of methamphetamine, distribution of MDMA (3,4-methylenedioxyamphetamine, known as ecstasy), and drug money laundering. During the course of the investigation, over 33 pounds of methamphetamine, 8 pounds of crystal methamphetamine, 196 gallons of methamphetamine oil, and 100 pounds of pseudoephedrine were seized, as were weapons, currency, vehicles, and 30,000 MDMA tablets.

The Santa Ana Police Department reports that Mexican criminal groups dominate the methamphetamine market in the city of Santa Ana and sell both powdered and crystal methamphetamine. In this area high purity crystal methamphetamine, known as ice, sells for $10,000 to $13,000 per pound. Medium purity crystal methamphetamine, known as glass, sells for $5,000 to $8,000 per pound and is reported to be the most popular form of methamphetamine distributed in the city; it is smuggled into the area from Mexico.

**Colorado.** DEA as well as numerous state and local task forces and police departments report that the availability of crystal methamphetamine (known as glass) has increased throughout Colorado. Crystal methamphetamine sells for approximately 40 percent more than powdered methamphetamine in Colorado, and it has become the form of methamphetamine that is most popular with abusers.

**Florida.** According to the DEA Miami Division, on November 27, 2001, agents seized 1 kilogram of crystal methamphetamine that was delivered to a residence by a package delivery service. The agents arrested three individuals and seized 28 MDMA tablets and 8 vials of GHB (gamma-hydroxybutyrate).

**Georgia.** According to the DEA Atlanta Division, there has been a large increase in the supply of crystal methamphetamine available in Atlanta. Clubs in downtown Atlanta are a focal point for the abuse of crystal methamphetamine. One sample of crystal methamphetamine tested 99.7 percent pure. In February 2002 the Oklahoma Highway Patrol seized 42 pounds of methamphetamine destined for Atlanta. One pound of the seized methamphetamine was tested and found to be crystal methamphetamine.

**Hawaii.** In Hawaii, unlike other states, crystal methamphetamine is the drug of choice and is more commonly abused than powdered methamphetamine. Crystal methamphetamine conversion laboratories are more prevalent than production laboratories. Mexican criminal groups have replaced traditional Asian criminal groups as the primary transporters and wholesale distributors of crystal methamphetamine in Hawaii. In the early 1990s law enforcement authorities in Hawaii dismantled several large Asian, primarily Korean, criminal groups that dominated the transportation of crystal methamphetamine into Hawaii from Asia. Asian criminal groups continue to transport and distribute some crystal methamphetamine in Hawaii, but to a lesser extent.

Currently most of the crystal methamphetamine available in Hawaii is transported into the state already in crystal form. Mexican criminal groups transport crystal methamphetamine from the West Coast, primarily California, as well as from Mexico. To a lesser extent, it is transported from Asian sources via couriers on commercial aircraft. Crystal methamphetamine also is produced in Hawaii. Powdered methamphetamine is processed through “conversion” or wash laboratories where it is treated with acetone to produce crystal methamphetamine. These laboratories are found predominantly on the island of Oahu, but some have been seized on the outer islands. According to 2000 data from Operation Jetway—a nationwide interdiction program that operates at airports, train stations, bus stations, package shipment facilities, post offices, and airport hotels and motels—in Hawaii there were eight seizures of crystal methamphetamine
totaling slightly more than 11 kilograms. According to the Hawaii HIDTA Airport Task Force, more than 21 kilograms of crystal methamphetamine were seized at the Honolulu International Airport from July 1999 through June 2000. According to DEA, crystal methamphetamine sold for $30,000 in the first quarter of FY2002, although inflated prices on the island of Hawaii reached $45,000 to $70,000 per pound.

**Illinois.** The Chicago HIDTA reports that Asian criminal groups now distribute crystal methamphetamine in the Chicago area. Crystal methamphetamine is obtained from sources of supply in Asia and smuggled by couriers aboard commercial airlines into the area. Asian criminal groups also obtain powdered methamphetamine from criminal groups composed of Mexican nationals located on the West Coast, convert the powder into crystal methamphetamine, and then distribute it in the Chicago area.

**Kansas.** The DEA Kansas City District Office reports that Mexican nationals are involved in the distribution of crystal methamphetamine in the area. Law enforcement investigations have revealed ties to methamphetamine laboratories operated by Mexican nationals in Phoenix, Arizona, and Riverside, California. According to DEA, crystal methamphetamine sells for $18,000 per pound in the Kansas City area.

**Mississippi.** According to the DEA New Orleans Division, recently obtained information indicates that crystal methamphetamine is being sold in Hinds, Copiah, and Forrest Counties in Mississippi. Crystal methamphetamine only recently has become common in Mississippi. It likely is being transported from sources in California, Texas, and Tennessee by private vehicle.

An ounce of crystal methamphetamine with a purity level of 97 percent was seized in Jackson. The Mississippi Bureau of Narcotics reported that the crystal methamphetamine (known there as ice) had been produced in California or Texas. The Mississippi Bureau of Narcotics also has encountered crystal methamphetamine in northeastern Mississippi.

**Missouri.** Increasingly, reports have been received that crystal methamphetamine is being distributed in Kansas City (MO). The Metro Methamphetamine Drug Task Force in Kansas City reported that a 16-year-old Caucasian female was found unconscious in a Kansas City motel room from an overdose of crystal methamphetamine.

**Nebraska.** According to the Omaha Police Department and the Western Intelligence Narcotics Group (WING) Drug Task Force in Scottsbluff, in July 2002 two seizures of crystal methamphetamine were made in Omaha and Hemingford. In one of the seizures the crystal methamphetamine, which resembled shards of glass, had been mailed from Phoenix, Arizona. In Nebraska crystal methamphetamine is known as ice.

**Nevada.** The DEA Las Vegas District Office reports that crystal methamphetamine is available in its jurisdiction in limited quantities, but demand for the drug is increasing. Mexican criminal groups transport the crystal methamphetamine from Southern California, primarily Los Angeles, into Nevada. These criminal groups also distribute the drug in the state. In Las Vegas crystal methamphetamine sells for $10,000 to $12,000 per pound and $1,000 to $1,500 per ounce.

**New Mexico.** According to the FY2003 Southwest Border HIDTA report, some international DTOs operating in New Mexico have production cells in Mexico that produce methamphetamine; however, the capabilities of these laboratories have not been clearly reported. The HIDTA also reports that a six-member criminal group in New Mexico obtains crystal methamphetamine from California and distributes it in gram quantities. The Lea County Drug Task Force in Hobbs, New Mexico, reports that officers have encountered crystal methamphetamine from Los Angeles, California, in its jurisdiction. One pound of crystal methamphetamine in Lea County sells for $16,000—more than double the price for powdered methamphetamine. However, in Lincoln County, narcotics officers report that crystal methamphetamine (locally known as ice) is frequently available for sale at nearly the same price as powdered methamphetamine.
South Dakota. The South Dakota Division of Criminal Investigation Drug Task Force reports that Mexican criminal groups are now distributing crystal methamphetamine in the state. Previously, methamphetamine was available only in its powdered form and was supplied by Mexican criminal groups and local independent producers.

According to the South Dakota Division of Criminal Investigation Drug Task Force, crystal methamphetamine remains available in South Dakota. A seizure of crystal methamphetamine was made in Rapid City in October 2001. Mexican nationals residing in Rapid City were transporting the crystal methamphetamine from Salt Lake City, Utah, to Rapid City, where it was being sold for $300 per eight ball (one-eighth ounce).

Texas. According to the DEA Houston Division, crystal methamphetamine is being sold in nightclubs in Houston and is abused by Asians and African Americans. During a vehicle stop in Montgomery County (north of Houston) on May 13, 2002, officers from the Montgomery County Special Investigation Unit and the Texas Department of Public Safety Narcotics Division seized 122.9 grams of crystal methamphetamine—one-half of which was concealed in a hollowed-out candle. The individuals involved were Caucasian males in their twenties. Officers from the Austin Police Department also report that the availability of crystal methamphetamine has recently increased in their jurisdiction, and they believe the drug is being produced locally. In July 2002 the Austin Police Department seized a crystal methamphetamine laboratory that was being operated by an 18 year old.

Wisconsin. The Douglas County Task Force first identified the availability of crystal methamphetamine in January 2002. Mexican and Asian criminal groups are the primary sources of supply for the drug, which is now readily available in the area. In this area crystal methamphetamine typically is sold in small retail quantities; however, one-half ounce to 1-ounce quantities have been seized. The drug generally sells for twice the price of powdered methamphetamine.

Federal Sentencing

Sentences for crystal methamphetamine “ice” are determined by the U.S. Sentencing Guidelines, which are in turn based on the statutory sentences, including quantity-based mandatory minimum sentences, in the Controlled Substances Act. For methamphetamine generally (leaving aside the crystal methamphetamine “ice” form), the statute and guidelines both set forth alternative formulations for determining quantity-based sentences because “actual” or “pure” methamphetamine (sometimes referred to in the sentencing context as “meth-actual”) is distinguished from “a mixture or substance containing” methamphetamine (sometimes called “meth-mixture”). The quantities of meth-actual that trigger the various mandatory minimum sentences and Guidelines sentencing ranges are one-tenth of those of meth-mixture. Thus, 5-year mandatory sentences are triggered by trafficking in 5 grams of meth-actual or 50 grams of meth-mixture; 10-year mandatory sentences are triggered by trafficking in 50 grams of meth-actual or 500 grams of meth-mixture. A mixture containing methamphetamine weighing 10 grams at 50 percent purity could either be sentenced as 10 grams of meth-mixture or 5 grams of meth-actual (although the higher sentence should prevail).

The term crystal methamphetamine “ice” does not appear in the statutory provisions prescribing methamphetamine penalties. In the Sentencing Guidelines, “ice” is defined as a mixture or substance containing d-methamphetamine hydrochloride of at least 80 percent purity. Unlike other methamphetamine mixtures, however, any quantity of “ice” is treated as meth-actual for Guidelines sentencing purposes. Thus, if the 10-gram mixture described above were “ice,” it would be sentenced as 10 grams of meth-actual. Because the alternative sentencing scheme does not apply to “ice,” traffickers in this crystallized form of methamphetamine will tend to receive longer sentences than other methamphetamine traffickers.

Source: Department of Justice, Criminal Division, Narcotic and Dangerous Drug Section.
Outlook

The increasing availability of crystal methamphetamine may indicate that Mexican DTOs and criminal groups and Asian criminal groups are attempting to create demand for crystal methamphetamine throughout the United States. Mexican criminal groups operating in the United States pose the greatest threat due to their existing methamphetamine production, transportation, and distribution networks. Mexican DTOs and criminal groups are using these networks to distribute crystal methamphetamine in areas of the country where the drug was previously available only in limited quantities or not at all. Asian criminal groups also will contribute to the growing availability of crystal methamphetamine due to their increasing involvement in distributing the drug in areas other than Hawaii and the West Coast. As the availability of crystal methamphetamine increases, a corresponding increase in the number of abusers will likely occur. The fact that the drug commands a significantly higher price than powdered methamphetamine is not likely to slow demand for the drug.
Sources

State and Regional
Austin (TX) Police Department
Central Valley California High Intensity Drug Trafficking Area
Chicago High Intensity Drug Trafficking Area
Douglas County (WI) Task Force
Fulton County (GA) Police Department
Hawaii High Intensity Drug Trafficking Area Airport Task Force
Lea County (NM) Drug Task Force
Metro (MO) Methamphetamine Drug Task Force
Mississippi Bureau of Narcotics
Montgomery County (TX) Special Investigation Unit
Oakland (CA) Police Department
Oklahoma Highway Patrol
Omaha (NE) Police Department
Peoria (AZ) Police Department
San Francisco (CA) Metropolitan Task Force
San Francisco (CA) Police Department
Santa Ana (CA) Police Department
South Dakota Division of Criminal Investigation Drug Task Force
Southwest Border High Intensity Drug Trafficking Area
Texas Department of Public Safety Narcotics Division
Western Intelligence Narcotics Group Drug Task Force (NE)

National
U.S. Department of Health and Human Services
   National Institutes of Health
      National Institute on Drug Abuse
U.S. Department of Justice
   Criminal Division
      Narcotic and Dangerous Drug Section
Drug Enforcement Administration
   Atlanta Division
   Denver Division
   El Paso Intelligence Center
      Operation Jetway
   Houston Division
   Los Angeles Division
      Las Vegas District Office