



PUBLICATION #12

U.S. CONSUMER PRODUCT SAFETY COMMISSION

The American traditions of parades, cookouts, and fireworks help us celebrate the summer season, especially our nation's birthday on the Fourth of July. However, fireworks can turn a joyful celebration into a painful memory when children and adults are injured or killed while using fireworks. Although legal consumer fireworks that comply with U.S. Consumer Product Safety Commission (CPSC) regulations can be relatively safe when used responsibly, all fireworks, by their nature, are hazardous and can cause injuries. Fireworks are classified as hazardous substances under the Federal Hazardous Substances Act (FHSA). Some fireworks, such as illegal firecracker-type devices (M-80s, quarter sticks) and professional display fireworks should never be handled by consumers, due to the risk of serious injury and death.

Following are a few examples of recent deaths caused by illegal fireworks:

**A 52-year-old male** lived in a mobile home with his sister in Florida. The mobile home had developed a rodent problem. According to the medical examiner's report, the victim's sister threw a lit firecracker at a rodent, and the firecracker caught the insulation of the mobile home on fire. The mobile home became engulfed in flames and the victim was unable to escape. The victim was found deceased near the back area of the residence. This incident occurred on April 30, 2017.

On the New Year's Eve of 2016, a **38-year-old female** from Hawaii was at a party to celebrate the New Year with her partner, friends and family members in a private property. It was reported that the victim, her partner and some people had been igniting fireworks on the public street in front of the property. It was believed that the victim was holding a metal mortar tube in her hands with a commercial 1.3G fireworks shell in it. The shell was possibly put into the tube by her partner. For an unknown reason, the fireworks shell exploded while inside the mortar tube, resulting in shrapnel from the tube becoming embedded into both the victim and her partner. The victim died of penetrating injury of the right axilla on the New Year's Day, and her partner was in serious condition and was transported to a hospital. According to the investigating officials, the witnesses were not cooperative with the authorities for the investigation. As a result, minimum information about the incident and the product were obtained.

On July 4, 2017, a **42-year-old male** from Illinois sustained a fatal head injury from a fireworks explosion incident. According to the police and fire department reports, the victim used a lighter to ignite the fuse of a large cylindrical mortar in a PVC tube that was 24-inch long and 4-inch in diameter. The mortar seemed to be a dud and did not launch. The victim approached the tube and looked down the pipe, and suddenly the mortar blew up into the victim's face. The victim died on the scene, and the cause of death was craniocerebral injuries from fireworks.

An **11-year-old boy** from Kansas died of penetrating injury of the left neck on July 21, 2017. According to the official reports, authorities received a 911 call from the victim of an apparent explosion. Multiple fire departments and EMS responded. According to the police, the victim was home alone and had been experimenting with fireworks and other explosive devices. The homemade device blew up and a piece of metal went into the victim's neck cutting his carotid artery. The victim was pronounced deceased at the scene. The death was determined to be accidental.

A **57-year-old** male from Maine died after a fireworks explosion on October 8, 2017. It was reported that the victim placed a firework into a PVC pipe and propped it up in a cinderblock outside his son's home. When the victim lit the firework, it exploded sending pieces flying. The victim was standing 15 feet away and several pieces of cement hit him. The victim was taken to a hospital where he died from his injuries. It was also reported that the fireworks involved were professional grade and the investigating authority did not know how the victim acquired them.

A **28-year-old male** from Missouri was injured by fireworks and died later in a hospital on July 4, 2017. According to the police, the victim was reported setting off fireworks in backyard. An unknown type of mortar shell struck the victim in his face and caused a massive trauma rendering him unconscious. The victim was transported to a hospital where he was pronounced deceased. The officials observed a lot of fireworks were close to where the victim was found. No one actually witnessed the incident. The police officials reported that no other details about the incident could be obtained.

A **25-year-old male** from Kentucky died of fireworks explosion on July 3, 2017. According to the police report, the victim was holding a consumer artillery tube in his hand when the device was loaded and ignited. The shell exploded in the tube while the victim was holding it. According to a witness who was standing next to the victim, the victim yelled and ran a few steps before collapsing. The victim was taken to a hospital and was pronounced dead. The cause of death was multiple blunt force injuries to the torso.



A **4-year-old girl** from Wisconsin was killed in a fireworks incident in July 2017. According to EMS report, the victim and her father were in front of their home where the father was lighting fireworks on July 10, 2017. At some point, the father put numerous individual sparklers into a piece of metal tube and then secured the tube into a planting pot to make it stay upright. The victim's father did this several times without an issue. Just before 10:30pm, the victim's father packed sparklers into the tube again and ignited them. The victim was reportedly about 10 to 12 feet away from the fireworks. Once the sparklers were lit, the force of the sparklers blew apart the tube, creating shrapnel that struck the victim in the neck. The victim's father carried the victim into the home and a 911 call was made. The medical responders treated the victim without success. The coroner declared the victim deceased just after the midnight.

To help prevent incidents like these, the federal government, under the FHSA, prohibits the sale to consumers of the most dangerous types of fireworks. These banned fireworks include: large reloadable mortar shells, cherry bombs, aerial bombs, M-80 salutes, and larger firecrackers containing more than two grains of powder. Mail-order kits designed to build these fireworks are also banned.

The CPSC lowered the permissible charge in firecrackers to no more than 50 milligrams of powder in a regulation that went into effect on December 6, 1976. In addition, CPSC regulations provide performance requirements for fireworks other than firecrackers intended for consumer use, including a requirement that fuses burn at least

three seconds, but no longer than nine seconds. All fireworks must carry a warning label describing necessary safety precautions and instructions for safe use.

CPSC estimates that in 2017, about 12,900 people were treated in hospital emergency rooms for injuries associated with fireworks. Sixty-seven percent of these estimated injuries occurred in a one-month special study period (June 16, 2017 – July 16, 2017) around July 4. Most of the injuries involved hands and fingers, the head (including face, eyes, and ears), legs and arms. Children under the age of 15 years old accounted for 36 percent of the estimated injuries. Fireworks should be used only with extreme caution. Older children should be closely supervised, and younger

children should not be allowed to play with fireworks, including sparklers.

Before using fireworks, make sure they are permitted in your state or local area. Regardless of location, consumers who intend to use fireworks must comply with federal regulations. Many state and local governments also prohibit or limit consumer fireworks, formerly known as “class C fireworks,” which are common fireworks, and firecrackers sold for consumer use. Consumer fireworks include: shells and mortars, multiple tube devices, Roman candles, rockets, sparklers, firecrackers with no more than 50 milligrams of powder, and novelty items, such as snakes, airplanes, ground spinners, helicopters, fountains, and party poppers.

### **To help consumers use fireworks more safely, the CPSC offers these recommendations:**

- Do not allow young children to play with fireworks. Sparklers, a firework often considered by many to be the ideal “safe” device for the young, burn at very high temperatures and should not be handled by young children. Children may not understand the danger involved with fireworks and may not act appropriately while using the devices or in case of emergency.
- Older children should be permitted to use fireworks only under close adult supervision. Do not allow any running or horseplay.
- Set off fireworks outdoors in a clear area, away from houses, dry leaves, or grass and other flammable materials.
- Keep a bucket of water nearby for emergencies and for pouring on fireworks that fail to ignite or explode.
- Do not try to relight or handle malfunctioning fireworks. Soak them with water and throw them away.
- Be sure other people are out of range before lighting fireworks.
- Never light fireworks in a container, especially a glass or metal container.
- Keep unused fireworks away from firing areas.
- Store fireworks in a cool, dry place.
- Check instructions for special storage directions.
- Observe local laws.
- Never have any portion of your body directly over a firework while lighting.
- Do not experiment with homemade fireworks.

**MAIL-ORDER “MAKE- YOUR-OWN” FIREWORKS KITS AND COMPONENTS --DESIGNED TO BUILD BANNED FIREWORKS-- ARE PROHIBITED BY LAW.**

Following is a summary of state regulations as of May 2018, according to the [American Pyrotechnics Association](#).

Fireworks are regulated by states and by local jurisdictions. To ensure full compliance with state and local laws, check with your local government (such as your

police or fire department) for detailed requirements. Please note that local requirements may supersede state laws.

**I. STATES THAT ALLOW SOME OR ALL TYPES OF CONSUMER FIREWORKS (formerly known as class C fireworks), APPROVED BY ENFORCING AUTHORITY, OR AS SPECIFIED IN LAW (46 states, District of Columbia and Puerto Rico):**

- |                             |                           |                               |                                |                               |
|-----------------------------|---------------------------|-------------------------------|--------------------------------|-------------------------------|
| <a href="#">Alabama</a>     | <a href="#">Hawaii</a>    | <a href="#">Minnesota</a>     | <a href="#">North Carolina</a> | <a href="#">Utah</a>          |
| <a href="#">Alaska</a>      | <a href="#">Idaho</a>     | <a href="#">Mississippi</a>   | <a href="#">North Dakota</a>   | <a href="#">Virginia</a>      |
| <a href="#">Arizona</a>     | <a href="#">Indiana</a>   | <a href="#">Missouri</a>      | <a href="#">Oklahoma</a>       | <a href="#">Washington</a>    |
| <a href="#">Arkansas</a>    | <a href="#">Iowa</a>      | <a href="#">Montana</a>       | <a href="#">Oregon</a>         | <a href="#">West Virginia</a> |
| <a href="#">California</a>  | <a href="#">Kansas</a>    | <a href="#">Nebraska</a>      | <a href="#">Pennsylvania</a>   | <a href="#">Wisconsin</a>     |
| <a href="#">Colorado</a>    | <a href="#">Kentucky</a>  | <a href="#">Nevada</a>        | <a href="#">Rhode Island</a>   | <a href="#">Wyoming</a>       |
| <a href="#">Connecticut</a> | <a href="#">Louisiana</a> | <a href="#">New Hampshire</a> | <a href="#">South Carolina</a> |                               |
| <a href="#">Delaware</a>    | <a href="#">Maine</a>     | <a href="#">New Jersey</a>    | <a href="#">South Dakota</a>   |                               |
| <a href="#">Florida</a>     | <a href="#">Maryland</a>  | <a href="#">New Mexico</a>    | <a href="#">Tennessee</a>      |                               |
| <a href="#">Georgia</a>     | <a href="#">Michigan</a>  | <a href="#">New York</a>      | <a href="#">Texas</a>          |                               |

(The [District of Columbia](#) and Puerto Rico, in addition to the above states, enforce the federal regulations and applicable state restrictions.)

**II. STATES THAT ALLOW ONLY SPARKLERS AND/OR OTHER NOVELTIES (Total of 3 states):**

- [Illinois](#)      [Ohio](#)      [Vermont](#)

**III. STATES THAT BAN ALL CONSUMER FIREWORKS (including those that are allowed by CPSC regulations) (Total of 1 state):**

- [Massachusetts](#)

To report a dangerous product or a product-related injury, log on to: [www.saferproducts.gov](http://www.saferproducts.gov), or call CPSC’s hotline at (800) 638-2772, or CPSC’s teletypewriter at (800) 638-8270, or e-mail [info@cpsc.gov](mailto:info@cpsc.gov).

Consumers can obtain press releases and recall information at CPSC’s website at: [www.cpsc.gov](http://www.cpsc.gov).



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