



Below is an overview of the tools, fuels, safety equipment and safety procedures used by the Mutaytor fire team. Our troupe has performed with fire since 1999, and every Inspector we've worked with across the country has approved and applauded our professionalism and safety (referrals are available upon request). Our fire team takes great care to ensure the safety of the audience, performers and venue.

**Advance Walkthrough:** Once the local Fire Inspector and the client agree that a fire show is possible, we will begin our own fire safety preparations. At least 7 days in advance of the show, our safety team conducts a walkthrough to determine if fire is practical and safe. Factors include local regulations, clear well-marked exits, ventilation, fire alarms, sprinkler systems, ceiling height and flammability and other considerations.

**Safe Distances:** There must be at least 15 feet from the Performance Area to the audience. There must be unimpeded passage from the Fuel Station and Spinout Zone to the stage at all times. The Fuel Station and Spinout Zone must be at least 15 feet from the stage.

**Space Requirements:** The Mutaytor Fire Show requires three important and distinct areas: Performance Area, Fuel Station and Spinout Zone. All must be lit and clearly marked with NO SMOKING signs isolated from any audience traffic (preferably backstage).

- **Fuel station** – All fuels will be located in a secure 10' square area which is manned with a trained fire safety-person and house security at all times. While the fuel station is "hot" (fuel is in place), these areas must be restricted to Mutaytor fire performers and safety team members only. Fuel is stored in MSR fuel bottles that exceeds the GSA Burst (400 psia) Pressure Requirement. The fuel used for most fire performances is Coleman's Camping Fuel (also known as "white gas" or "naptha"). Fire breathers use Lamplight Farms 99% pure Lamp Oil (liquid paraffin).
- **Spinout zone** – A 10' square area, well ventilated and located outside in a secure, well lit area. Performers will "spin off" all excess fuel from their wicks in the Spinout Zone.
- **Performance Area-** Depending on the size of the stage, Performers will spin in the middle of the stage's performance area, preferably at least 8' from the edge of the stage.

**Medical Care/Emergency Room:** Before the show, driving directions to the nearest hospital and/or emergency room are distributed to the crew. A designated driver and vehicle will be onhand with a clear route out of the venue area before the show begins.

**Equipment:** At the fuel station, the fire team will organize fire tools and fuels with metal dip cans, drip pans and other fueling equipment. Metal Hazardous Waste top-closing (foot activated) containers will enclose dip cans. Also located in the Fuel Station will be NO SMOKING signs, orange construction cones, caution tape, fire extinguishers, duvetine (flame retardant fabric) and other safety equipment.

**Tools:** All tools are inspected prior to every show. Any visible signs of wick decomposition, loose fasteners or frayed grips disqualifies the use of that tool for that performance.

- **Wicks:** Most of our wicks are made of Kevlar. According to Dupont, Kevlar fiber is 5 times stronger than steel on a pound-for-pound basis. In addition, it is 3 times more resistant to stretching than "E" glass, is completely non-flammable, and will not melt. We purchase Dupont Kevlar 1" and 2" tape, and rope from Thermostatic Inc. in Los Angeles Phone: (800) 345-4217, or go to [www.thermostatic.com/tape/kevlartape.shtml](http://www.thermostatic.com/tape/kevlartape.shtml) for spec sheets.



- **Eating Torches:** 1" Kevlar wick securely attached to various body styles – aluminum, wrought iron, sealed wood, and various metals. Apx burn time: 2 minutes



- **Fire Staff:** Fire Staffs use 2" Kevlar tape wicks on each end, secured to various solid or collapsible body styles made of aluminum or other metals. Apx burn time: 2 minutes



- **Fire Hoop:** Different styles are used, most commonly a pvc hula-hoop with steel reinforced threaded Kevlar wicks. Apx burn time: 2 minutes



- **Fire Poi:** 2" Kevlar wicks on steel ball chain with quick-link connectors. Grips are made of leather or Kevlar webbing. Apx burn time: 3 minutes





- **Fire Breating:** Fire breathing requires an outdoor setting, or at least a 35' fire retardant indoor ceiling. A heavy vinyl tarp is rolled out to cover the stage. Fuel used is 100% liquid paraffin. Approximate burn time: 2 minutes, averaging 5-7 bursts



- **Fire Fingers-** small 1" Kevlar wicks on copper wire or metal fittings, attached to leather or treated satin gloves, tethered to each finger. Apx burn time: 3 minutes



- **Palm Torches:** various styles. 1/2" Kevlar wick tethered to middle finger to rest in the palm of the dancer. Apx burn time: 2 minutes



#### Custom Pieces:

- **Fire Fans** – 1" Kevlar wicking on steel fan frame. Apx burn time: 3 minutes



- **Fire Umbrellas** – custom pieces with 1" Kevlar wicks attached to a metal Umbrella frame. Apx burn time: 2 minutes

**Performance:** Immediately prior to taking the stage, a performer will dip fire tools into the dip cans and enter the spin out zone to spin out all excess fuel until no spray emits from the tool. White gas evaporates very quickly, so the spin out zone is usually dry in under a minute. The performer then goes to the stage, and prior to performing, they check in with one of the Safety Team to approve the costume and tool. After their performance, they return to the fuel station to stow the fire tool. After a tarp is unrolled, our Fire breathers will go on stage with a duvetyne towel to wipe away excess lamp oil between fire bursts. The Mutaytor reserves the right to refrain from any fire act that the fire team considers unsafe for any reason, including environmental factors that may arise during the show.

**Safety Protocol:** Mutaytor performers and fire safety team wear only leather, silk, denim, cotton (natural fibers), vinyl and other materials treated with flame retardant spray. Onstage, fire performers and safety team never wear fur, fake fur, feathers, polyester, lace, etc. All fire breathers wear double paned safety goggles.

**Safeties:** There are at minimum one safety on each side of the stage, and an extra safety will be added for group fire pieces. Additionally, one fire safety is always posted by the fuel station and spin-out zone. The stage has 2 safety stations each with one 2A10BC dry chemical extinguisher, one CO2 extinguisher, one fire blanket, treated duvetyne cloth and a water bucket with damp towels. Fire extinguishers are inspected frequently and have current tags.

All fire performers and fire safety team members have been trained in fire extinguisher usage, identifying types of fires and the proper extinguisher to utilize for each type, basic burn first aid including identification and first response burn care, and at least 2 team members are trained in CPR.

Please contact Christine Nash at 310.718.7374 with any additional questions.



**MUTAYTOR**