HOME of POI

Danger – Please Read

KEROSENE (called paraffin in many places outside the U.S.) is the safest fuel for all fire props. That doesn't mean that it is safe, but it's safer than any other kind of liquid fuel. It is the least explosive of fuels.

Pure kerosene is not particularly toxic. If splashed on the skin it should be wiped promptly, but if it isn't it will only give you contact dermatitis (skin rash). If it is splashed in the eyes it should be thoroughly rinsed out. If you should drink some, drink a glass or two of water to reduce the possibility of indigestion, gas, or diarrhoea, but do not induce vomiting (because of the possibility of inhalation).

However, only a very few brands of kerosene are 100% pure, with no additives. These are sold as aviation kerosene and are not available to the general public. As of December 1998, I can find only Exxon Aviation Turbo Fuel, Mobil Jet Fuel- Kerosene turbine fuel, and Pennzoil Kerosene Turbine Fuel (Aviation).

All of the several hundred other brands and types of kerosene (aviation fuel, coal oil, heating oil, lamp oil, and fuel oil) contain a variety of extremely toxic ingredients, principally benzene and naphtha. These additives or impurities are absorbed though the skin and mucous membrane, and accumulate in the liver and kidneys. Some directly attack the corneas, so if such kerosene is splashed into the eyes, the eyelids should be held open and flushed for fifteen minutes, and you should seek medical attention immediately. Again, if swallowed, do not induce vomiting, but seek medical attention immediately.

What this means is that all kerosene should be treated as if it is highly toxic. If the Manufacturers Safety Data Sheet (MSDS) for a particular brand of aviation-type kerosene says that it is one of the few that are 100% pure kerosene, then you might trust it if you also see the barrel it comes out of and read the labels on that barrel. Treat anything that is repackaged for retail sales (smaller than 55 gallon drums) as highly toxic. I've heard reports of people repackaging various grades of kerosene as nontoxic or good for jugglers and fire-eaters -- some was, some wasn't.

Scented and unscented lamp oil is kerosene without the bad smell. But contrary to popular belief, the additives that make it more aesthetically acceptable also make it more poisonous. Roman Oil was originally a naturally occurring fuel and lamp oil without the usual odor or smokiness. Again the assumption was that if it didn't smell bad it wasn't bad for you. And again, the assumption was wrong: it is often among the more toxic of kerosenes.

COLEMAN FUEL and **LIGHTER FLUID** (Ronsonal and Zippo) consist of naphtha with various additives to control smell and appearance. They are preferred by many jugglers because they are not as smoky or as smelly as kerosene, and they light quickly. But naphtha is much more volatile than kerosene -- that is, it is more likely to explode or get out of control than kerosene. You cannot dip blown-out but still smoldering torches into naphtha because that will instantly set the contents of your fuel jar on fire. Even approaching your fuel while holding smoldering torches can cause the fuel to explode. You must completely extinguish all smoldering and wait at least thirty seconds before recharging your torches when using naphtha. Naphtha is as toxic as the worst of kerosenes.

CHARCOAL STARTER (Kingsford and Wizard) is a mix of kerosene and naphtha. Some jugglers prefer a mixture of 4 parts Coleman to 1 part charcoal starter, because they think it makes a brighter but safer flame, with less smoke and stink. Others mix Coleman and kerosene to produce the same effect. All of these fuels are highly toxic if inhaled or ingested.

GASOLINE, PAINT THINNER, AIRPLANE FUEL, and other highly volatile fuels are extremely explosive and extremely toxic. The fumes remaining in a one-gallon can that has been emptied of gasoline can explode with the force of a stick of dynamite. When it is very hot and humid, gasoline fumes will not readily disperse and may be ignited as much as a half hour after all the original products are capped and stored. The fumes from Coleman, lighter fluid, and barbecue starter will explode almost as readily, but not with quite the same force -- say, a half-stick of dynamite. Kerosene and lamp oil are fairly hard to blow up, which is why they are used in lamps and home heaters.

GRAIN ALCOHOL is produced by fermentation. It is the basic ingredient in beer, wine, and liquors, and is not immediately poisonous. Beverages with an alcohol content of 60% (120 proof) or higher are volatile enough to be used with fire props, but are seldom used because they produce a wimpy flame.

Fire-eaters and fire-breathers sometimes use high-proof liquor, such as Ron Rico Purple Label Rum. This avoids the problems of poisoning, but blowbacks are just as likely. EVERCLEAR, which is pure (100%, 200 proof) grain alcohol, is also sometimes used. It approaches the volatility of gasoline, making blowbacks almost inevitable. It is not available in some states. The only medical problem with liquor or Everclear is that what you absorb from doing a few blasts of fire will get you quite drunk. That's not a reasonable condition to be in if you are doing fire.

Safety check of equipment

Check equipment each time you use it. Check split ring by handle for over stretching check condition of wire and connection to wick.

Your safety

Wear tight fitting natural fiber clothing. Conceal or wet long hair. Know where all the safety equipment is. Have someone checking for your own safety (eg. you may be unaware that your back is on fire). Make sure the other safety personnel know what to do in case of an emergency. Fire blanket, slightly damp blanket, appropriate fire extinguishers and first aid kit.

Safety of others

Be aware of any local fire bans. Be aware of local fire safety regulations and permits if required. Do not use fire on a flammable surface. Keep others out of the twirling zone. Mark this area and have barriers if possible. Have someone be in charge of keeping on-lookers safe. Keep unused fuel well away from the performance. Have fire safety equipment readily available and know how to use it.

Dipping

Fully submerge kevlar wicking in your fuel. Swirl around a bit and remove. Try not to get the rest of the equipment covered in fuel

Shaking

Big downward sweeps are the best way to shake the excess fuel off. Keep shaking until you stop hearing droplets hitting the ground. Always dip 'n' shake as soon as the gear has been put out, if possible. After dipping and shaking equipment MUST be put in the right place so it can be found quickly to use again.

Lighting the equipment

Always light equipment at its base - ie. The bottom of the kevlar wick. If it's windy, use your body to shield the flame so it doesn't blow out. Turn it so that the wicking isn't just burning on one side. When lighting equipment, make sure that it is a safe distance away from the fuel container

Extinguishing equipment:

Blow out fire from the bottom of the wicking. If they don't go out after two blows place them on the ground and smother them with a damp towel. (In an emergency, **USE A FIRE EXTINGUISHER**)
Do not let the kevlar wick smolder, as it will not last as long

First Aid for Burns

Hold burnt area under cold, gently running water for about ten minutes, by which time it should have returned to normal body temperature. Remove jewelry and clothing from affected area, but leave any that is stuck to the skin. Cover the burn with a sterile, non-stick dressing. If the casualty is conscious and thirsty, give frequent small amounts of water. **DO NOT GIVE ALCOHOL**. Alleviate pain by gently pouring cold water over the dressing. Unless the burn is minor in nature, seek medical aid as soon as possible.

DO NOT apply any lotions or moisturizer, prick or break blisters, overcool the casualty, put towels or adhesive bandages directly onto the burn

How to make the wick last longer

Attach it to the poi or staff as tight as possible. Most people let their wicks burn too long. All the damage is done when most of the evaporating fuel has gone and the fire is burning the residue on the wick.

Disclaimer

Home of Poi Limited ("*Home of Poi*") welcomes you to this art form. By using the equipment, you acknowledge that you have read and accepted these disclaimers.
The information provided here and on the website is based on information supplied by Home of Poi (unless otherwise specified), and is intended only as an introduction and guide to Poi and Fire swinging and its range of available products. While every endeavor has been made to supply accurate information, errors and omissions may occur. Accordingly, Home of Poi does not accept any liability for any loss or damage, which may directly or indirectly result from any advice, opinion, information, representation or omission, whether negligent or otherwise, contained within these pages and/or on the website.
Changes or updates to the content of this data may occur without notice. No content on this sheet or our website, including product, shall add to or change any contract for products or services you may have with Home of Poi.

Visit our website for lots more help and advice
Home of Poi Ltd, PO Box 6271, Christchurch, New Zealand. Website: www.homeofpoi.com
Contact: Support@homeofpoi.com