

Safety Rules for Fire Spitters

Disclaimer:

The information in this brochure is provided for guidance only and does not intend, in any way, to encourage fire spitting or to imply that it is anything but a **dangerous and health-threatening pursuit**. This brochure may be distributed freely, but **only in its entirety**.

Note:

This pamphlet refers to Fire Spitting (Cracheur de Feu) and not to Fire Eating which is a completely different technique using different materials.

Attitude:

Fire Spitting demands physical and mental concentration. The performer should be centred and grounded, thinking “I stay cold while the fire is hot.” Fire Spitting should never be attempted while under the influence of alcohol or drugs, or for instance, while in an excitable state because of the presence of an audience. It should not be attempted by people with any form of Chronic Aspiration.



Immediate Dangers:

Besides the obvious dangers of “playing with fire” there are some lesser known considerations.

If the oil used in Fire Spitting enters the lungs it can induce a form of pneumonia within hours (**R65**). This is sometimes referred to as chemical pneumonia or lipid/lipid pneumonia. A doctor’s care is immediately required. The oil itself, being slippery, can reduce the effectiveness of the epiglottis and dampen the coughing reflex, increasing the likelihood of it entering the lungs.

In the event that a quantity of oil is accidentally swallowed (entering the stomach), do not induce vomiting as it may result in accidental inhalation of the oil.

Long Term Health Effects:

Repeated performance of Fire Spitting over a longer period, for example, daily for over a month, is not recommended for the following reasons:

It is not possible to avoid swallowing small quantities of the oil. Petroleum oil is for the most part indigestible and passes through the digestive tract. On its way it can interfere with the absorption of fat-soluble vitamins such as A, D and E, effectively flushing them through the system. Long term use can result in vitamin deficiency. Some Fire Spitters recommend rinsing the mouth out with milk after a performance.

Prolonged exposure may lead to dermatitis (R66).

General Safety Considerations:

A data sheet on lamp oil based on **EU Regulations 1907/2006 (REACH) and 1272/2008 (CLP)** should be available. (See link below.)

The oil should be kept in a properly marked container, preferably the original container in which it was purchased. For aesthetic reasons during performance, it may be desirable to hold the oil in an alternative unmarked container. In such cases, when not empty, the alternative container should always be held in the hand of the performer or that of a responsible assistant, and at the completion of the performance any unused oil should be immediately transferred back into the original properly marked, child-proof and oil-resistant container.

As Fire Spitting is most effective in a darkened space, precautions must be taken in cases of reduced visibility. Emergency exits for indoor performances should be marked by illuminated signs.

As the result is a blast of light and heat that can be felt by the public over a distance of several meters, there exists the potential for causing panic. Make sure there are no obstructions to interfere with any surge of the crowd.

A wet cotton towel should always be close at hand, if not actually in the hand of the performer.

For indoor events make sure there are two assistants standing by with fire extinguishers in hand. These should be of powder or CO2 type. A fire extinguisher should never be directed towards a person's face. In the event of flash back igniting the oil on the performer's face, only a wet towel should be used to extinguish it.

Pay attention to the possibility of setting off automatic alarms and fire extinguishers.

Don't allow projected oil to fall upon the public or sensitive surfaces. Do not allow oil to accumulate on the performer's costume. It is not advisable to spit fire while wearing a beard, as it can become soaked with oil and act as a wick, increasing the chance of burns to the face.

Materials:

The use of vegetable based lamp oil is strongly recommended, such as that marketed by the Danish company Agowa. This will greatly reduce the impact upon the performer's health. Otherwise, odourless lamp oil, or refined paraffin should be used. Paraffin has relatively low volatility. Under no circumstances should petrol (USA: gasoline; DK: benzin) be used as a substitute.

The torch used to ignite the projected mist should be about 30 centimetres long so that the hand is not directly exposed to the blast. The kind of iron rod used in concrete construction is ideal because its bumpy surface allows for firm attachment and it does not become consumed by the fire. The end of the torch should be made by wrapping cotton (not synthetic) cloth around the end of the stick, and binding it with metal wire in such a way that it will not become loosened as it becomes charred.

Technique:

Novices should first use water to practise the techniques of holding the liquid safely in the mouth and producing the aerosol spray through the lips. They should then familiarize themselves with the taste and feel of the oil in the mouth by using a very small quantity and spitting it out into an empty container.

The most important skill to learn is how to consciously isolate and combine the air pressure in the mouth and lungs. This involves conscious control of the soft palate and epiglottis. This can be learned through exercises used by wind instrumentalists (circular breathing) or divers (Frenzel Technique).

Pour about half a mouthful of oil into the mouth. Do not suck, draw or slurp the oil. By using the tongue as a piston, create a slight positive pressure in the mouth while continuing to breathe easily through the nose. The resulting slight tension in the cheeks, while still breathing in and out through the nose demonstrates that the oil is properly isolated in the mouth. When ready to spit, breathe in to slightly less than full lung capacity, and transfer pressure from the lungs carefully to the mouth by opening the epiglottis. Build sufficient pressure with the lungs before slightly releasing the lips as if playing a trumpet or blowing a high pitched “raspberry.” Allow the oil and air mixture to escape under pressure as a fine mist. The tongue controls the placement of the oil in the mouth, allowing adjustment of the balance of oil and air. Immediately bring the flame of the torch up into the aerosol, igniting it. Do not fully empty your lungs, or dribble off at the end, but rather snap your lips tightly together, abruptly shutting off the stream of air and oil. Wipe excess oil off your mouth.

Further Information:

<http://www.borup-kemi.dk/~media/Files/Flydende%20Kemi/Lampeolie%20v1-0%202.ashx>

http://liquivision.com/docs/Frenzel_Fattah_English_r2006.pdf

www.agowa.eu/Menu/Products/Facts+about+vegetable+lamp+oil