

# **MACE, PEPPERSPRAY, TEAR GAS, AND SMOKE BOMB RECIPE GUIDE**



## **Pepper Spray Recipe**

**Pepper spray is made up of an active ingredient called OC (Oleoresin Capsicum) and other inert ingredients. They can be water or oil based. The best formula being oil based as oil based products do not have the problem of separation.**

**The actual term OC (oleoresin capsicum) refers to chili peppers, and is a horticultural term. Jalapenos, chilepin, cayenne, and habaneros are all chili peppers. Although they look quite different, and can taste quite different, they all contain an alkaloid called capsaicin. Capsaicin is tasteless and odorless. It is so powerful that even when it is immersed in water, the heat from it can be detected. Studies show that humans can detect even one part per ten million of this powerful alkaloid. To make Pepper spray, we must extract the oleoresin capsicum from the peppers, the OC is not water soluble so we must use oil or alcohol or a combination of both to extract it. This is how it's done.**

### **Ingredients:**

**1 1/2 Cup: Isopropyl Alcohol**

**1/2 Cup: Canola, Vegetable oil**

**1/4 cup: fine grain Iodized Salt**

**2 dozen fresh peppers or dried (chili peppers, chilepin, cayenne, jalapeños, or habaneros) I suggest cayenne or habanero's**

**Blend up whole peppers (or for a more potent batch use 4 dozen peppers and use only the veins and seeds of the peppers as they contain the most Capsaicin in the peppers, the veins are the lighter colored things running down the inside of the peppers). Combine alcohol, oil, and blended peppers in a bowl or**

**container and let sit for a minimum of 16 hours stirring occasionally. During this time the oleoresin capsicum will saturate the oil and alcohol. Now take the mixture and filter out the pieces of the pepper through a fine metal or paper filter. Now heat solution on a very low heat (do not allow solution to become hotter than 60 degrees Celsius as too much heat will diminish the potency of the peppers) if you have time to spare just let the solution sit on a window sill in the sun until it thickens up slightly. What you are looking for is a consistency that is able to be sprayed from a spray bottle but is as concentrated as possible. If consistency becomes too thick just add more alcohol. Mix in salt and put in a spray bottle. The mixture is ready for use.**



## **Mace Recipe**

**Mace is a red spray that if you get it in you eyes. To produce the same chemical used in the real mace will be to expensive make or buy so here are some easy recipes from house hold chemicals:**

**3 cup Iodine**

**1/2 cup Isopropyl Alcohol**

**1/2 cup Salt**

**2 cups Glycerine**

**2 cups Vinegar**

**This is a killer recipe that works great. Combine Iodine and Alcohol together mix in salt. In another container combine glycerine and vinegar. Then combine the two mixtures slowly, make sure not to inhale or get in eyes while mixing.**

**To make it spray well, Get those hair spray cans which allow you to put in your own liquid in and put it in them, they work excellent.**

## **Mace Substitute**

**3 Cups: isopropyl Alcohol**

**1/2 Cup: Iodine**

**1/2 Cup: Salt the finer grain the better**

**2 oz lemon juice**

**Mix the Iodine and Alcohol together first heat mixture on stove or burner until warm. MAKE SURE WHEN HEATING TO KEEP A CLOSE EYE ON MIXTURE BECAUSE ALCOHOL IS FLAMMABLE AND MAY START A FIRE. Then slowly mix in the salt until it dissolves, add lemon juice and cayenne pepper, and there you are an easy mace recipe that works great.**



## **How to Make Tear Gas**

The method of making tear gas is so simple that anyone can do it. The two things to remember are care and caution. You will need a certain amount of equipment but, you can find them in any hobby shop, or home chemical supplier. If you don't already own a gas mask, go out and get one. They are sold at any Army stores for less than 10 bucks.

### **Materials Needed**

-----

- |                            |                                |
|----------------------------|--------------------------------|
| <b>1. Ring Stand</b>       | <b>14. Rubber Tubing</b>       |
| <b>2. Alcohol Lamp</b>     | <b>15. Glass Tubing</b>        |
| <b>3. Flask (300-ml)</b>   | <b>16. Rubber Stopper</b>      |
| <b>4. Clamp</b>            | <b>17. Collecting Bottle</b>   |
| <b>5. Rubber Stopper</b>   | <b>18. Glass Tubing</b>        |
| <b>6. Glass Tubing</b>     | <b>19. Rubber Tubing</b>       |
| <b>7. Clamp Holder</b>     | <b>20. Glass Tubing</b>        |
| <b>8. Rubber Tubing</b>    | <b>21. Rubber Tubing</b>       |
| <b>9. Condenser</b>        | <b>22. Air Trap Bottle</b>     |
| <b>10. Rubber Tubing</b>   | <b>23. Glass Tubing</b>        |
| <b>11. Ring Stand</b>      | <b>24. Rubber Tubing</b>       |
| <b>12. Clamp and Clamp</b> | <b>25. Glass Tubing Holder</b> |

**13. Rubber Tubing      26. Beaker (300-ml)**

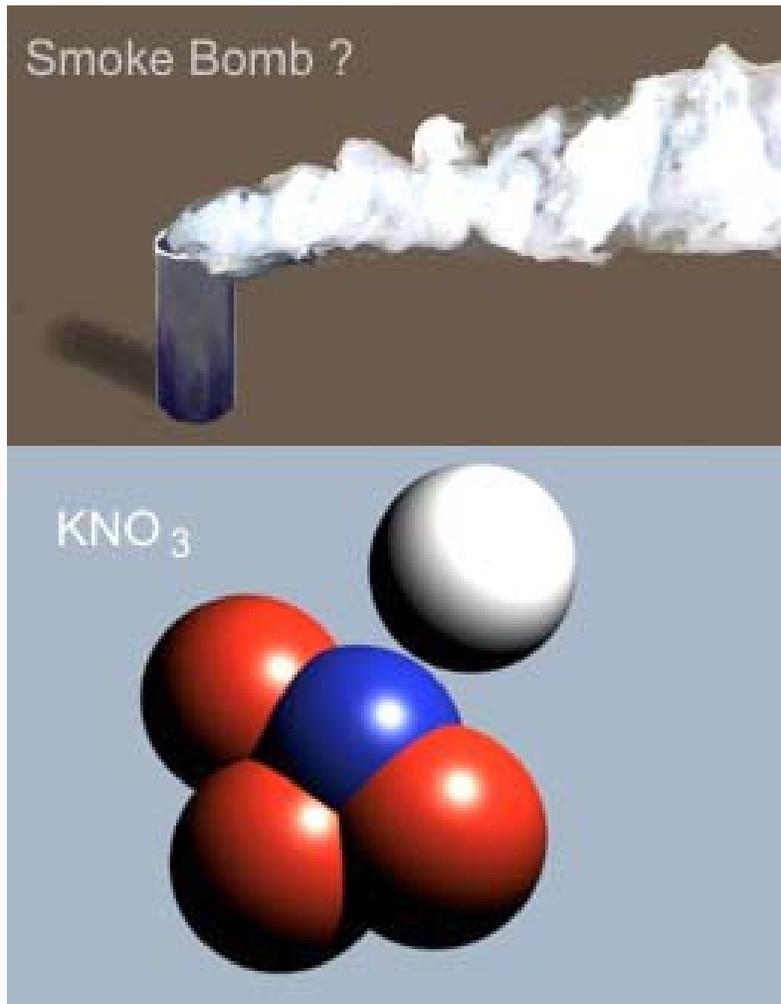
**Method For Preparing Tear Gas:**

-----

- 1. Work in a garage, or outside if possible - not in the kitchen.**
- 2. Mix ten parts of glycerine with two parts of sodium bisulfate, in flask (No. 3), and heat. Do not fill more than one-third of flask, as mixture froths when heated. When the frothing begins, adjust heat.**
- 3. As soon as you see no more tear gas being generated, and solids beginning to be formed in the generating flask (No. 3), or a brown residue in the tube (No. 6), remove the heat source, 'With your gas mask on', and pour out the residue in flask. You must pour this outside. 'Do not pour down sink or toilet.'**
- 4. Remove collecting jar (No. 17) and stopper it QUICKLY. What you have collected here is tear gas.**
- 5. Do not attempt to make more than three ounces at one time.**



# How to Make a Smoke Bomb



A white smoke bomb can be made from sulfur, potassium nitrate, black powder, aluminum powder, iron oxide and carbon tetrachloride. It can be used either for signaling or screening.

## Materials Required

Sulfur, Potassium Nitrate, Black Powder, Aluminum Powder, Black Iron Oxide, Carbon Tetrachloride, [White Flare Mix](#) (described later), Tablespoon, Wooden Stick, Newspaper, Quart Jar with Lid, Window screen, 10inch Fuse, 2 and half inch by 5 inch tin can and a lighter.

## Procedure

Measure 3 level tablespoons of dried sulfur into the quart jar. Add 4 level tablespoons of dried potassium nitrate to the sulfur. Add two heaping tablespoons black iron oxide. Place all ingredients on the window screen. Mix ingredients thoroughly by sieving them onto the newspaper, repeat this 3 times. Pour the ingredients back into the jar. Screw the lid on the jar tightly and mix the ingredients vigorously until even. Remove the lid and add 10 heaped tablespoons of aluminum

powder then mix thoroughly with the wooden stick. Store in the jar with tightened lid until use.

### **Usage**

Wet the ingredients in the jar to a paste consistency with Carbon Tetrachloride, do this in a well ventilated area as the Carbon Tet will give off toxic gases. Add a half cup of black powder to the paste and mix carefully with wooden stick.

Measure one heaped tablespoon of white flare mix onto a four inch square aluminum foil. Knot one end of the fuse and place in the middle of the white flare mix. Fold the corners of the foil tightly around the fuse.

Place the white smoke bomb mix into the can. Place the fused white flare device into the can just below the surface of the smoke bomb paste and ignite the flare to deploy the smoke bomb.

## **How to Make a Flare**

An improvised white flare can be made out of potassium nitrate, aluminum powder and shellac. It has a time duration of about two minutes.

### **Materials Required**

Potassium Nitrate Powder, Aluminum Powder, Shellac, Quart Jar with Lid, 15 inch fuse, wooden stick 1/2 inch thick, Tin can 2 and half inch and 5 inch long, Flat window screen and a wooden block.

### **Procedure**

Place the Potassium Nitrate crystals on the screen and rub back and forth with the wooden block until processed into a fine powder. Measure 21 tablespoons of the Potassium Nitrate and add 21 tablespoons of Aluminum powder both into the jar. Cover the jar with the lid and shake vigorously until even. Add 12 tablespoons of shellac and stir with the wooden stick until even. Cover tightly with lid until use.

### **Usage**

Knot one end of the fuse. Wrap the fuse at the base of the can with the knotted end in the center. Pour in the white flare powder over the fuse and ignite the fuse to deploy within three weeks.

White flares are commonly used for signaling in low light environments.

## **Ultimate Colored Smoke Bomb**

### ***Make Dense Clouds of Colored Smoke***

The classic smoke bomb is a great project for the home or lab, producing lots of safe smoke, with purple flames. If you get dye and consider the shape of your creation, you can make a smoke bomb that billows clouds of brightly-colored smoke. This project is easy and safe enough to at home. Adult supervision is required.



### Colored Smoke Bomb Materials

- 60 g (3 tablespoons) potassium nitrate (sold as saltpeter in garden supply shops)
- 40 g (2 tablespoons) sugar
- 1 teaspoon baking soda
- 60 g (3 tablespoons) powdered organic dye (found in laundry sections of the store as well as craft & hobby shops)
- cardboard tube (best is an iced push-pop tube (eat the treat first), or you could use a toilet paper roll or section of paper towel tube, or even a rolled/taped paper tube)
- duct tape
- pen or pencil
- firework fuse (hardware, rocketry, construction, or hobby shops, or scavenge it from a firework)
- cotton balls
- saucepan

### Make the Colored Smoke Bomb Mixture

1. Mix 60 g potassium nitrate with 40 g sugar in a saucepan over low heat. It's a 3:2 ratio, so if you don't have grams, use three large spoonfuls of potassium nitrate and two large spoonfuls of sugar (3 tablespoons and 2 tablespoons, if you feel the need to be precise).
2. The sugar will caramelize and brown. Stir the mixture continuously until it resembles smooth peanut butter.
3. Remove the mixture from heat.
4. Stir in a spoonful of baking soda (rounded teaspoon is fine). The baking soda is added to slow down the combustion when the smoke bomb is ignited.

5. Add three large spoonfuls (3 tablespoons) of powdered organic dye. Blue dye and orange dye are said to produce better results than the other colors. Stir to mix well.
6. Construct the smoke bomb while the mixture is still hot and pliable.

### **Assemble the Smoke Bomb**

1. Fill a cardboard tube with the warm smoke bomb mixture.
2. Push a pen or pencil down into the center of the mix (doesn't have to be all the way to the bottom but should be enough that the pen stands in the mixture). You could use a different shape, but the cylinder works really well.
3. Let the mixture harden (about an hour).
4. Remove the pen.
5. Insert a firework fuse. Push pieces of cotton balls into the hole to tamp the fuse securely inside the smoke bomb. Be sure there is fuse left outside of the tube so that you will be able to light your smoke bomb. There is also a nifty pull ring fuse that can be constructed here is the link to the website that has a video of how to make it  
<http://myspacetv.com/index.cfm?fuseaction=vids.individual&videoid=16435609>
6. Wrap the smoke bomb with duct tape. Cover the top and bottom of the tube, too, but leave the hole area with the cotton and fuse uncovered.
7. Go outside and light your smoke bomb!

## **Classic Smoke Bomb**

**Here is the recipe for one helluva smoke bomb!**

**4 parts sugar**

**6 parts potassium nitrate (Salt Peter)**

**Heat this mixture over a LOW flame until it melts, stirring well.**

**Pour it into a future container and, before it solidifies, imbed a few matches into the mixture to use as fuses. One pound of this stuff will fill up a whole block with thick, white smoke!**



## **Smoke Grenade**

**One type of pyrotechnic device that might be employed by a terrorist would be a smoke bomb. Such a device could conceal the getaway route, or cause a diversion, or simply provide cover. Such a device, were it to produce enough smoke that smelled bad enough, could force the evacuation of a building, for example. Smoke bombs are not difficult to make. Although the military smoke bombs employ powdered white phosphorus or titanium compounds, such materials are usually unavailable to even the most well equipped terrorist. Instead, he/she would have to make the smoke bomb for themselves.**

**Most homemade smoke bombs usually employ some type of base powder, such as black powder or pyrodex, to support combustion. The base material will burn well, and provide heat to cause the other materials in the device to burn, but not completely or cleanly. Table sugar, mixed with sulfur and a base material, produces large amounts of smoke. Sawdust, especially if it has a small amount of oil in it, and a base powder works well also. Other excellent smoke ingredients are**

small pieces of rubber, finely ground plastics, and many chemical mixtures. The material in road flares can be mixed with sugar and sulfur and a base powder produces much smoke. Most of the fuel-oxidizer mixtures, if the ratio is not correct, produce much smoke when added to a base powder. The list of possibilities goes on and on. The trick to a successful smoke bomb also lies in the container used. A plastic cylinder works well, and contributes to the smoke produced. The hole in the smoke bomb where the fuse enters must be large enough to allow the material to burn without causing an explosion. This is another plus for plastic containers, since they will melt and burn when the smoke material ignites, producing an opening large enough to prevent an explosion.

### **SIMPLE SMOKE**

The following reaction should produce a fair amount of smoke. Since this reaction is not all that dangerous you can use larger amounts if necessary

**6 pt. ZINC POWDER**

**1 pt. SULFUR POWDER**

**Insert a red hot wire into the pile, step back.**

### **COLORED FLAMES**

Colored flames can often be used as a signaling device for terrorists. By putting a ball of colored flame material in a rocket; the rocket, when the ejection charge fires, will send out a burning colored ball. The materials that produce the different colors of flames appear below.

<b>COLOR</b>	<b>MATERIAL</b>	<b>USED IN</b>
red	strontium salts (strontium nitrate)	road flares, red sparklers

<b>green</b>	<b>barium salts (barium nitrate)</b>	<b>green sparklers</b>
<b>yellow</b>	<b>sodium salts (sodium nitrate)</b>	<b>gold sparklers</b>
<b>blue</b>	<b>powdered copper old pennies</b>	<b>blue sparklers,</b>
<b>white</b>	<b>powdered magnesium or aluminum</b>	<b>firestarters, aluminum foil</b>
<b>purple</b>	<b>potassium permanganate</b>	<b>purple fountains, treating sewage</b>