

# How To Make Your Own Pepper Spray

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# Introduction

Please Read before making

"Pure capsaicin is so powerful that chemists who handle the crystalline powder must work in a filtered "tox room" in full body protection. The suit has a closed hood to prevent inhaling the powder. Said pharmaceutical chemist Lloyd Matheson of the University of Iowa, who once inhaled some capsaicin accidentally: "It's not toxic, but you wish you were dead if you inhale it." "One milligram of pure capsaicin placed on your hand would feel like a red-hot poker and would surely blister the skin "NOTE: The extract is very noxious and will cause contact burns on exposed skin; all extraction steps should be carried out in a hood. This is why limits are placed on pepper sprays.

Even though you desire to be safe and secure, some states regulate or forbid pepper spray and/or tear gas, or some may allow cities to make their own assorted laws regarding tear gas. Many countries, including Canada, also forbid tear gas. For this reason, it's a good idea to call the law enforcement agency that has jurisdiction over your destination before you bring tear gas, mace or pepper spray somewhere to find out about its laws.

Types of Pepper Sprays and Tear Gas:

There are **four** major chemicals used as tear gases. The first two are CS and CN, short for orthochlorobenzalmalononitrile and chloroacetophenone, respectively. They are the most common by far. A third, code named CR (dibenz(b,f)-1,4-oxazepin), *is unavailable for civilian use*. In order to disperse them, they are suspended in a liquid carrier and aerosolized. You have probably heard of Mace, which is one of many brands of CN tear gas and is a well-recognized trade name by both civilian and law enforcement tear gas users.

\*\*\* The fourth and generally regarded to be the most distressing to experience is pepper spray which is the oleoresin capsicum extracted from chili peppers. It's the chemical that gives them their hot quality. OC is a reddish-orange, oily liquid, insoluble in water. This agent is also dispersed by aerosol. \*\*\*

Oleoresin Capsicum (OC)

Oleoresin capsicum (abbreviated O.C.) is the oily mixture produced when the burning compounds, which naturally occur in hot red peppers, are extracted. Capsaicin is the actual ingredient within the OC that causes burning sensation and inflammation of mucous membranes. The amount of Capsaicin in layman terms, is the cause of the hotness of chili peppers. This is why those coming into contact with Capsaicin experience

an immediate closing of the eyes, difficulty in breathing and burning sensation of the skin called REMS.

In the early 1980's Zarc International, Inc. introduced a proprietary "capsicum pepper technology" to be used as a safe and effective non-lethal weapon by military and law enforcement. "Capsicums" are chili peppers which occur in many varieties that range from mild to hot. Capsicum encompasses twenty species and some 300 different varieties of pepper plants. "Oleoresin" is the industrial extraction of the dried ripe fruits of capsicums and contains a complex mixture of highly potent organic compounds. This section is devoted to general information regarding Oleoresin Capsicum.

Oleoresin Capsicum (OC) is the extract of the dried ripe fruits of Capsicums and contains a complex mixture of essential oils, waxes, colored materials, and several capsaicinoids. It also contains resin acids and their esters, terpenes, and oxidation or polymerization products of these terpenes. One kilogram of Oleoresin Capsicum is equivalent to approximately 18 to 20 kilograms of good grade well-ground capsicum. This ratio may vary depending on the type of capsicum being processed.

# RECIPE'S

THE BEST RECIPE IS THE LAST ONE

Why they work:

Peppers and certain herbs contain the compound "capsaicin" which will cause inflammation, irritation and repel. Cayenne, chili, dill, paprika, red and black peppers can be used. Purchase the cheapest you can find, or grow hot peppers and dill in your garden. Dry them and pulverize them in a food processor.

“The main Active ingredient in most pepper sprays is Oleoresin Capsicum (O.C.), commonly referred to as red pepper. “

NOTE: Did you know that pepper spray is also a bug repellent for plants? Look it up

## **1. OLDIE BUT A GOODIE**

Marinated jalapeno peppers, Drain the juice into a bowl, Add Cayenne Pepper tsp of vinegar, Put in a sprayer

## **2. RED HOT & KICKIN ASS**

Combine generous amounts of Black pepper, chili pepper, dill, ginger, paprika, and red pepper which contains Capsaicin, the main ingredient for repelling. Add to a liquid base such as Jalapeno juice, bleach, alcohol, and or vinegar. Garlic can be added as well. Blend Blend Blend.

## **3. STICKY ICKY**

In a blender with water, liquefy 2 large Cayenne or Habanero peppers. Strain to remove the solids and add 1/2 Cup to 2 Cups of Jalapeno Juice. Depends on how much you want and the strength you want.

Dry out the solids and crush to a fine powder and combine with Cayenne Pepper, Black Pepper, then add back into the liquid formula.

Then add roughly ¼ tbs of pure castille soap to make the mixture sticky. (Trial and error on the exact amount to add so that it flows from the sprayer.

## **4. SIMPLE BUT EFFECTIVE**

Puree 1/2 cup of hot peppers and 2 cups of water in a blender. Strain the liquid through cheesecloth. Wear gloves when handling the peppers and be careful not to get the liquid on your skin or in your eyes - it will sting and burn.

**THE NEXT RECIPE IS A COMBO OF ALL THE ABOVE AND MY PERSONAL FAVORITE:**

**MY RECIPE: BE CAREFUL**

List:

Paprika - Powdered red pepper  
 RED Peppers Dried, Fresh, or Extract  
 Habanero Peppers Dried, Fresh, or Extract  
 Jalapeno Peppers Dried, Fresh, or Extract  
 Cayenne Peppers Dried, Fresh, or Extract  
 Any other peppers you can get your hands on

If you buy Fresh (BEST WAY) Unless you can get concentrated. (RARE)

Blend all the peppers with 2 cups of water (Or you may use jalapeno juice, Alcohol, or bleach for extra kick. (I combine it with Alcohol, Vinegar and Jalapeno juice)  
 Strain the pulp out and dry the pulp (in the sun, microwave or dehydrator) Take the dried pulp and crush to a fine powder. The pulp will contain mainly the veins and the seeds that did not get blended the first time around. They also contain the most O.C. Needed.

If you buy dried, Crush all peppers to a fine powder then blend with 2 cups of water or jalapeno juice.

Add in generous amounts spices like:

- Black pepper,
- Cayenne Pepper,
- **Paprika, This is POWDERED RED PEPPER - MUST USE**
- **Crushed red pepper - MUST USE**
- Garlic powder or pepper. By the way the more garlic the better. You can also put fresh garlic in, remember to do the same with any pulp, it must be dried and made to powder.
- 1/2 - 1tsp of vinegar can be used as well.
- Then add roughly 1/4 tbs of pure Castille soap This will make the solution sticky and when the person rubs their eyes it will just get worse and get all over. (Trial and error on the exact amount to add so that it flows from the sprayer easily.)

If the solution is to thick, add water or more juice to get the right consistency

\*\*\*\*\* ADD Several drops of BLUE DYE, This will make it easy for the Police to find the person. Or you can add any number of luminescence liquid that will shine under UV lights.\*\*\*\*\*

Blend again and place in any type of co2 or pump sprayer like a mini key chain super soaker.



<http://www.ultimatekeychains.com/index.asp?PageAction=VIEWPROD&ProdID=207>

Or a Kitchen Spritzer



[http://www.pamperedchef.com/our\\_products/catalog/product.jsp?productId=610&categoryCode=KW](http://www.pamperedchef.com/our_products/catalog/product.jsp?productId=610&categoryCode=KW)

## NEW FORMULA

### 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, habaneros and or paprika)**

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.



"In case of accidental exposure rinse affected areas with cool water and expose to fresh air. Do not use salves, lotions or oils. If irritation persists seek medical attention.

The use of this substance or devise for any purpose other than self-defense is a crime under the law.

Conditions of Sale: Purchase of this product is an agreement by the purchase/user to hold all sellers and manufacturers harmless of all liabilities or damages. The purchaser/user assumes all responsibilities for the use or misuse of this product. Use of this product in a situation other than self-defense may result in criminal action.

Keep out of the reach of children. Check your state and local laws in regards to possession and/or use of this product.

Buyer assumes all responsibility to meet state and local laws.

## Testing the Hotness of Pepper Sprays (NOT RECOMMENDED) JUST FOR INFORMATION

1. Capsaicin is the actual ingredient within the OC that causes burning sensation and inflammation of mucous membranes. The amount of Capsaicin in layman terms, is the cause of the hotness of chili peppers.

To scientifically measure the amount of Capsaicin within OC sprays, HPLC method is used to obtain exact and accurate data. (See the Official Analytical Methods of the American Spice Trade Association (HPLC method 21.1). This test method provides an acceptable international guidelines for testing the Capsaicin amount by the scientific community.

2. For example, United States Testing laboratory HPLC on CAPSTUN product resulted in 0.92% Capsaicin for Z-305 model. With the HPLC method the users are rest assured that exactly 0.92% of Capsaicin is contained in the canister regardless of the formula or other ingredients.

3. Scoville Heat "SHU" Test method (See the American Spice Trade Association Method 21.0.) dates back to 1930's and is replaced by the modern and machine accurate HPLC method.

SHU testing is none other than "tongue" tasting of the spice by a panel of 5 individuals. SHU therefore depends on the subjective taste experience of the panel. The SHU test is not accurate since it depends on the individual taste sensitivity which changes from person to person and does not measure the actual chemical percentage within the product. SHU test is an appropriate test for the food spice community, however it cannot serve the weapon technology, where an officer depends on the OC's high performance.

### Scoville Heat Test (SHU)

Purpose: To determine pungency in Capsicum spices and oleoresins, via SHU "taste" analysis.

#### A. Apparatus:

Erlenmeyer flask, narrow neck, 125 ml. with ground glass stopper.

Pipette, serological, 1 ml. capacity, 0.01 ml. graduations.

Pipettes, volumetric transfer 2 ml. and 5 ml. capacity.

Volumetric flasks, stoppered, 50 ml. capacity, 100 ml. capacity.

Funnel, analytical 58°, short stem.

Filter paper, Whatman No. 1, 12.5 cm.

Paper cups.

## B. Reagents:

Ethyl alcohol, 95%

Sucrose solution, 5% sucrose in tap water (w/v) i.e. 50 g. made up to a liter.

## C. Preparation of Samples:

Ground capsicums and oleoresins should be used as is. Prepare unground capsicums as directed in Method 1.0. Oleoresins should be mixed thoroughly before taking sample.

## D. Procedure:

Make an alcoholic extract of the sample based on anticipated pungency. Ground Capsicum should be extracted for a minimum of 16 hours. Shake occasionally. An Oleoresin sample can be dissolved and used immediately.

Decant or filter to get a clear extract.

For the material to be tasted, dilute the quantity to 50 ml. with 5% sucrose solution using pipettes and volumetric flask. In any given test start with an amount of alcoholic extract considered to be too small so that negative response will be obtained and increase the amount three out of five tasters report positive results. Record individual response to each dilution. For selection of panelists see Note 1.

Before the first tasting and between each tasting have the individuals sip or rinse their mouth with water at 90°-100°F.

For tasting, 510.1 ml. aliquots of the solutions prepared as indicated in step 3 are to be swallowed one at a time from small cups. The judgment as to whether or not heat is present is to be made between 20 and 30 seconds after swallowing. The minimum interval between tasting the solutions should be 5 minutes. (See Note 2).

Tasters are to continue through the sequences of solutions until each reports a definite burn sensation. (See Note 3). Report the heat units for the first solution for which three out of the five panelists report positive.

Notes:

A panel of five reliable tasters is required.

Potential panelists should be given several trials at tasting a series of solutions which is known to contain the threshold heat response. A Capsicum sample analyzed previously is suitable. The panelists' results for several days can be compared for agreement and with results of experienced individuals. It is important for potential panelists to learn their own threshold sensation to Capsicum heat. For example, where the sensation occurs in their

mouth. This experience may build sufficient confidence in individuals for them to judge their own performance. Some individuals may not qualify because of extremely poor repeatability. Others may not be capable of utilizing their taste sensation. Finally the threshold level of Capsicum is not necessarily the same for each person. Results of this procedure can be biased if panelists are chosen for high or low sensitivity. A panel of five is not expected to indicate a threshold reaction on the same dilution. In fact, the pattern of positive response may include a range of dilutions.

Experienced panelists who have respiratory infections, a recent exposure to highly seasoned foods or medications may be incapable of a reliable response. For this reason it is helpful to maintain experienced alternates.

An experienced panel may be capable of good performance without waiting 5 minutes between solutions. But allow 1.5 hours between panel sessions. A great deal of time will be wasted if the panel is given solutions which are far too dilute. Therefore, knowledge of approximate Scoville value is a great aid in presenting the least number of solutions. In addition, the individual preparing the extract and solutions can perform preliminary tasting. Although, this will eliminate them from immediate participation as one of the five member panel.

## Mace *Substitute 1*

3 PARTS: isopropyl Alcohol  
 1/2 PARTS: Iodine  
 1/2 PARTS: Salt the finer grain the better  
 2 oz lemon or lime juice  
 2 oz cayanne pepper

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 cayanne pepper, and there you are an easy mace recipe that works great.

REMEMBER REAL MACE REQUIRES CERTIFICATION AND THE CHEMICAL TO MAKE IT CANNOT BE PURCHASED BY THE PUBLIC.

## Mace *Substitute 2*

Mace is a spray for the eyes. To produce the same chemical used in the real mace is not possible at the public level. This is merely a substitute

3 cup Iodine  
 1/2 cup Isopropyl Alcohol  
 1/2 cup Salt  
 2 cups Glycerin  
 2 cups Vinegar

Combine Iodine and Alcohol together mix in salt. In another container combine glycerin and vinegar. Then combine the two mixtures slowly, make sure not to inhale or get in eyes while mixing.

The best spray canister for Mace is those Pump Hairspray can that allow you to put your own liquid in. They tend to spray like an aerosol. However, you can use any type of a pump squirt gun or if you are good with your hands, you can make some form of pressurized can using CO2 canisters.

## 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

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

### The Correct Uses of [Pepper Sprays](#) and [Tear Gases](#):

A person threatening you with a lethal weapon can injure you mortally in less time than it takes you to draw and aim a [tear gas](#) weapon. An assailant may be able to take your canister away from you and use it against you. If this is happening, try to throw the spray away out of reach. Your spray could backfire at you in wind. Both wind and rain may reduce its range and effectiveness. CS, CN and CR [tear gases](#) are usually not very effective against animals. In fact, law enforcement uses horses and dogs in areas they have deployed [tear gas](#). OC ([pepper spray](#)) has been proven effective against many animals, and has been available to the California public in an aerosol form for this purpose even before its use against humans became legalized. Most canisters sold for [self-defense](#) against humans, however, are marked "Not tested on animals."