



## Chemical Spray / OC For Self Defense by John Hemingway (WNCCARRY)

I get questions all the time about the effectiveness of tear gas/pepper spray for self-defense. I am a certified "Safariland Chemical Instructor" and have used chemical irritants many times in corrections and emergency situations. The answer is that OC is very effective in the hands of a trained person. Most are considered "non-lethal" personal self-defense device, but chemical sprays have caused led to other issues that have caused death in certain people. There are legal issues as well, like it may be illegal in some states and cannot be carried onto airplanes and certain federal/state buildings.

### History Of Chemical Sprays

Chemical sprays are broken down into is (3) categories of active ingredients: CN, CS, & OC.

**CN** or *chloroacetophenone* was used by the military and police departments in the 60s and 70s, but has limited use now. This was a vaporized gas product under pressure that released a crystalized product in liquid vapor/gas form. Product name "MACE" is familiar and has stuck over the years. Has a fairly long reaction time of up to 30 seconds and clean up inside can be tedious, further is can be less effective against violent attackers, especially those under the influence of narcotics and alcohol.

**CS** or *ortho-chlorobenzalmalononitrile*. It is a micro-pulverized irritant, really small. Can causes irritation to the mucous membrane of the nose, throat, eyes, and the skin in high concentrations. It works better than CN, sometimes known as super CN. Usually used by military and law enforcement for riot control, not readily available to the public.

Either of the above sprays cause side effects like vomiting, and choking and in large doses can be life threatening. CN and CS are not all that effective against dogs because they lack lacrimal glands.

**OC** or *oleoresin capsicum*, an extracted product from chili peppers and is commonly referred to as **Pepper Spray**. OC is widely sold today and the spray of choice for police since the initial "First Defense" report by the FBI in the late 80's. Pepper spray is generally regarded to be the most effective on all types of persons, having a shorter reaction time and easier clean-up / decontamination process. Usually sprayed directly in the eyes, nose or mouth area, with inhalation the most effective method. The product is a sticky oily substance liquid that can be water or oil based variations. The strongest concentrations are up to 30% for non-human use i.e. "bears" and the up to 15% for human usage. Most LEO agencies use a 10-12% solution rated at approx., two-million scoville heat units.

Direct contact in the facial regions or inhalation of the spray will induce coughing, choking, and nausea, and causes involuntary closing of the eyes. Swelling of eye capillaries resulting in temporary blindness may occur as well. The mucous membranes will swell causing breathing

difficulties and causing the assailant to be temporarily incapacitated this causes a panic reactions causing the contaminated person to think the reactions are even worse. Lasting up to 45 min to an hour the effectiveness of OC is well known, but still is not 100% effective on all people.

## **Why Use OC / Pepper Spray?**

Why not is more the question? If used correctly, it can reduce the attacker's ability to function, gives you that reaction time that is needed and allows for you remove yourself from the incident. When used for self-protection it is a great tool to have. People have their reasons and needs, my slogan "it's to have it and not need it, than need it and not have it" all ways rings true. The effective range of most spray canisters is approximately 3-10 feet depending whether the canister emits a mist or stream, well out of the assailants grab zone.

Most want it as a reaction to the fear of an assault, they carry on a key chain they brought at a local convenience store and never "learned" now to use it, they forgot about the newness in a couple of weeks and never think of it until the need it. Everyone wanting to carry OC should take a training course before purchasing it.

## **Liability Issues**

Using pepper spray irresponsibly can incur criminal or civil liability. Spraying an innocent victim in the face can be a crime, just like a simple an assault is. Justification for using chemical sprays must be self-defense (remember opportunity, ability, intent & jeopardy from the other classes) force must be reasonable to the event and circumstances. You can't lawfully spray someone in the face for using obscene / foul language or because you are simply afraid because of their appearance.

## **Important tips:**

- Why / What are your reasons for wanting OC / pepper spray
- Take a training course from a professional before buying
- Use OC / pepper spray properly, i.e. self-defense
- Don't let children get access to OC / pepper spray
- Don't ever use OC / pepper spray in a moving vehicle
- Avoid isolated or dangerous areas, use positional awareness
- Keep the canister readily accessible
- Use in emergency to help aid in escape
- Spray directly into the assailants face / nose / eyes
- Avoid contact with the person sprayed
- Run away and call the police
- Rinse your eyes repeatedly with cold water, if affected
- Use tearless baby shampoo to help remove the oil resin