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Provost  
Marshal's  
Office  
MCB, Camp  
S.D. Butler

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Oleoresin Capsicum

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## 5.3 OLEORESIN CAPSICUM

**TERMINAL LEARNING OBJECTIVE(S):**

- 5.30 Upon completion of this lesson and without the aid of references, the student will be able to demonstrate the proper handling, use and employment of Oleoresin Capsicum (OC).

**ENABLING LEARNING OBJECTIVES**

Upon completion of this lesson and without the aid of references, the student will be able to:

- 5.3.1 **EXPLAIN** the physiological and psychological effects of OC on subjects that have been sprayed.
- 5.3.2 **EXPLAIN** the Marine Corps Use of Force Continuum as it pertains to the use of OC.
- 5.3.3 **EXPLAIN** the proper procedures for deploying and using OC.
- 5.3.4 **IDENTIFY** the different types of OC delivery systems.
- 5.3.5 **DEMONSTRATE** the proper procedures for drawing, gripping, engaging, verbalizing and moving with an OC canister.
- 5.3.6 **DEMONSTRATE** accurate spray techniques with OC.
- 5.3.7 **DESCRIBE** general decontamination and recovery from OC.
- 5.3.8 **DEFINE** terms associated with OC.
- 5.3.9 **DESCRIBE** the procedures to secure and handle subjects upon contamination of OC.
- 5.3.10 **DEMONSTRATE** proper securing and handling of a subject contaminated with OC.
- 5.3.11 **EXPLAIN** the hydraulic needle effect.
- 5.3.12 **STATE** the nomenclature of an OC aerosol canister.
- 5.3.13 **EXPLAIN** the employment considerations on the use of OC.

**REQUIREMENTS FOR INITIAL AND SUSTAINMENT TRAINING****Initial Training**

To be an end-user, a documented Level I (direct spray) exposure with fight through drills is required. This requirement can be met by attending and successfully completing the Basic Police Officers Course, USMC Military Police School at Ft. Leonard Wood, MO or the Inter-service Non-Lethal Individual Weapons Instructor Course (INIWIC).

Training emphasis includes:

- Level 1 contamination to include fight through drills.
- Unit and service policy and procedures.
- Employment practice utilizing inert training units.
- First Aid and decontamination.

### Recertification/Sustainment Training

Individual end-users are required to recertify annually on the anniversary date of the initial certification. Recertification will include review of the "Use of Force/Use of Force Continuum Policy" and training with inert OC units using Defensive Tactics Drill Cards.

This training will be conducted on a "regular" basis dictated by MCPD/PMO policy.

Policy changes will be included in sustainment training.

OC users should be made aware of any case law, rules of engagement, or liability issues that may affect the use of OC.

Discuss and critique incidents that resulted in the use of OC.

Sustainment training will include scenario-based instruction geared towards use of force decision making, force option selection, approach tactics, verbalization, handcuffing, search, post-application care, first aid and decontamination.

Sustainment training should include a Level 2 or Level 3 contamination followed up with fight through drills. Fight through scenarios teach the users why and when to use OC, as opposed to other training that may only address how.

### HISTORICAL OVERVIEW

The first use of pepper as a defensive or offensive weapon dates back to approximately 2000 B.C. during the wars between India and China. The Chinese used "stink" pots composed of red pepper that was burned in oil creating an extremely irritating smoke. Japanese Bushi used finely ground dried red peppers wrapped in rice paper. When the enemy was engaged, the paper was lit on fire and thrown or delivered by bow and arrow toward the enemy. The brittle rice paper could also be thrown into the face of adversaries during hand-to-hand combat.

In 1930 the U.S. Military developed an Oleoresin Capsicum (OC) compound but found no effective method of delivery suitable for military use.

In 1960, postal workers carried OC as a dog repellent in 0.35% (by volume) and it is still in use today.

In 1976, the first commercial OC product for law enforcement was developed in the garage of a Florida home. Gardner Whitcomb created it; the product was called CAP- STUN®

In 1987, the Firearms Training Unit of the FBI began a study of OC with the intention of supplementing their CN/CS munitions; it concluded with the adoption of OC for use by FBI agents in January of 1990.

### OC SPECIFICATIONS

The particular OC formulation used by the DoN and USMC was determined by available medical research on the effects and safety of certain concentrations. Manufacturers make formulations in a range of "hotness" based on an industry-wide rating system called the Scoville Heat Unit (SHU).

The heat rating/hotness of the OC as indicated by the SHU is important to know in that a product that is too "hot" may have unforeseen safety or medical issues and a product with too low of a rating may not be effective at all on an attacker.

OC concentration percentages are 1% - 10% (how much OC is in the mixture);

Department of the Navy Bureau of Medicine requires capsaicinoid content level of between .18% and .22%

SHU: 1.5 million - 2 million SHU is recommended for law enforcement.

### USE OF FORCE

MCO 5500.6H governs use of OC within the Force Continuum. OC is a compliance technique - equivalent with suspect Active Resistance. On the Force Continuum, OC is prior to hands on defense.

If a subject stops resisting, the use of force must stop as well (other than that amount reasonable to maintain control).

#### Reduce Threat Verbally

Strong verbal commands may induce fear factor and cause subject to submit.

Use Sir/Ma'am or use first name or rank if known.

Hold OC in defensive position.

Clear, concise, authoritative verbal commands are very effective in some situations. Avoid profanity and treat people with respect.

#### Caution

OC products may not have an effect on "goal oriented" individuals.

Improper spraying is main reason for failure to work on an individual.

If subject seems affected (eyes closed), but keeps attacking, disengage, create space, and spray again.

If subject seems unaffected, disengage and seek another force option.

#### Reporting Use of Force

Any time you use force, a report must be submitted. A written narrative report is extremely valuable because it documents and chronicles an event in a clear and concise fashion. In addition to the standard "who, what, when, where, why, how and what action was taken"; you should include the following when OC is utilized:

- Officer arrival and approach
- Subject's action and behavior
- Non-verbal responses by subject
- Purpose for using force
- Amount of resistance
- When OC was used
- First aid and decontamination

## OLEORESIN CAPSICUM (OC)

## Description

An oily resin

Classification: Inflammatory

Used in pharmacology and food industry

Not achieved by merely crushing peppers

Made through variety of scientific methodologies

An organically based, non-lethal aerosol weapon designed to incapacitate most attackers instantly – with no after-effect. It is a powerful inflammatory agent that occurs naturally in peppers. The cayenne pepper is the most commonly used pepper.

## Definitions

Oleoresin - A mixture of a resin and an essential oil occurring naturally in various plants.

Capsicum - refers to a wide variety of tropical pepper plants with the genus of the same name. Any plant of the genus capsicum, occurring in many varieties that range from mild to hot, having pungent seeds, also ranging from mild to hot, enclosed in a potted or bell-shaped pericarp.

Oleoresin Capsicum - Oil of capsicum.

Pungency - The heat or intensity of the pepper.

Capsaicinoids - a group of alkaloid compounds, naturally occurring within the fats, oils, and waxes of the pepper plant. The amount of these compounds determines the pungency of the pepper.

Capsaicin - is the active component of Chile Peppers which are plants belonging to the genus Capsicum. The most prevalent of the seven compounds found within the capsaicinoids and considered to be the active ingredient in OC.

Scoville Heat Units (SHU) - A scale used to define the perception of heat based upon the capsaicinoid content of the capsicum plant.

Solvents - A liquid substance capable of dissolving or dispensing one or more other substances.

Emulsifier - A substance that creates an emulsion, or a mixture of mutually insoluble liquids in which one is dispersed in droplets throughout the other; bonds two or more liquids together.

Carrier - the ingredient or ingredients, other than the OC, which comprise the OC formulation.

Propellant - the gas or liquid, which pressurizes the canister and propels the carrier and agent to the target.

Consistency - To ensure proper mixture of above, it is recommended to shake the can before each use if possible and at least once per month if not used.

What makes OC hot?

Capsaicinoids - Active ingredient

Makes OC "hot"

Manufacturers extract capsaicin from capsicum

USMC authorizes .18% - .22% capsaicin

Scoville Heat Unit (SHU) is a scale also used to determine hotness

Temporary Distraction

OC is a temporary distraction to some people and an incapacitant to others. Do not rely on its apparent effectiveness; be prepared for its failure.

A less-than-lethal weapon designed to incapacitate attackers for up to 45 minutes

OC is a powerful inflammatory agent that occurs in peppers

Affects the eyes, nose, mouth and throat

Sensation of burning, coughing, sneezing, wheezing

Allows subject to be restrained with minimal physical contact

OC aerosol solutions have been successfully proven to control individuals under the influence of drugs or alcohol and mentally deranged individuals, as well as domestic and wild animals without causing permanent damage.

Animal Control

There are field reports that OC may in fact work on animals as a deterrent to attack; however, be prepared for it not to work as advertised.

Ideal for control of animals

Use short bursts to the eyes, nose & mouth

May make animals retreat rather than attack

### CLASSIFICATION

The three most commonly used chemical compounds used by the military are:

OC - Inflammatory

CN - Lachrymator

CS - Irritant

The agent state of these compounds varies according to the compound. OC is primarily an oily resin while CN and CS are more of a micro particulate.

What is OC?

OC - (trade name Pepper Spray, Pepper-Mace®)

Is an inflammatory

Spray ¼ to ½ second burst to face

Takes 2 - 5 seconds to work

Decontamination is cool air and water

What is CN?

CN - (trade name Mace®)

Is a lachrymator

Spray to chest

Takes 5-7 seconds to work

Decontamination is cool air and water

Used in hand-held personal defense sprays as well as riot control formulations, CN was popular in the 60's and 70's. However, its effectiveness was minimal at best.

What is CS?

Is an irritant

Spray to chest or inhale from area concentration

Takes 20-40 seconds to work

Affects respiratory tract

Burning of eyes and skin

Decontamination is cool air and water

Possible side effects

CS is primarily used in crowd dispersal and riot control. It has devastating effects on individuals. Depending on dispersal method, it may take longer to get the desired effects.

#### DELIVERY SYSTEMS

Manufacturers of law enforcement/military equipment have produced many types of sprays, powders, grenades, launchers etc. to meet the diverse need for a variety of field conditions.

Cone/ Mist;

Stream;

Foam;

Fogger;

Splatter- Droplet;

Grenade;

Pepper-ball/FN303 (High Pressure Air powered)

In hand-held personal defense spray version, most units have minimum and maximum effective range for dispersal. Know the two extremes for distance. Too close is ineffective because the spray goes on wet and the propellant does not evaporate as quickly thus delaying reaction. Additionally, too close presents the risk of not only cross-contamination from blow-back but the risk of having the can grabbed or knocked out of your control.

On the other extreme, if you spray from too great a distance and do not make direct contact with the subject's face, essentially all you are doing is temporarily contaminating an area. You will then have to continue to operate in an exposed environment until the subject is restrained. Additionally, be observant to your surroundings, the wind, weather, and atmospheric conditions. The OC may not perform as advertised. Keep Officer Safety in mind at all times.



## SPRAY PATTERNS

Spray patterns are defined as how the OC is displaced when leaving the nozzle of the OC canister. There are three basic spray patterns. The three spray patterns are fog, which has the smallest particulate size, stream which has a somewhat larger particulate size, and foam, which has the largest most concentrated particulates. They are employed according to the type of canister and the environment in which they will be used.

### MK-4 Ballistic Stream

A powerful concentrated stream, which allows a greater range in its delivery system. Use of the stream contains the contamination in a more concentrated area.

The ballistic stream can be used to select an individual in a crowd with greater accuracy and reduce the likelihood of contaminating other subjects or troops, which may be in the area.

This pattern hits the subject with a splash or splatter effect (dependent upon the distance) giving it an effective range of 3 to 12 feet. However, as a general rule, use the 4 to 6 foot Reactionary Gap as the range.

The minimum spraying distance is 36 inches.

### MK-4 Fog.

This type of pattern is dispersed in a wide cone-like formation (similar to a shotgun effect) making it easier to acquire the target.

The spray is completely filled with microscopic droplets causing the entire area around the subject's eyes, nose, and face to be covered.

Full cone patterns are affected more by wind conditions and generally do not have as many spray bursts per canister (due to the nozzle design), or the effective range (3 to 8 feet) as stream patterns.

The minimum spraying distance is 36 inches.

### MK-4 Foam.

A powerful fast acting foaming surfactant that coats the face upon contact. This pattern hits with greater impact, has better surface adhesion, reduces cross contamination, and has an effective range of 3 to 5 feet.

It is designed for climate-controlled environments such as courtrooms, hospitals, schools, and holding facilities. It is easier to see the application during low light conditions.

The minimum spraying distance is 36 inches.

Some throwback potential exists and may possibly be inhaled; the product may become slippery on smooth surfaces.

Above are the manufacturer specified spray capabilities. Our recommended range for OC spray is 4 – 6 feet, in line with the Reactionary Gap.

## NOMENCLATURE OF THE OC CANISTER

Most OC canisters are usually divided into seven different parts depending on the manufacturer. These parts are:

Nozzle- dispenses the product from the canister according to the prescribed pattern.

Canister- contains the product.

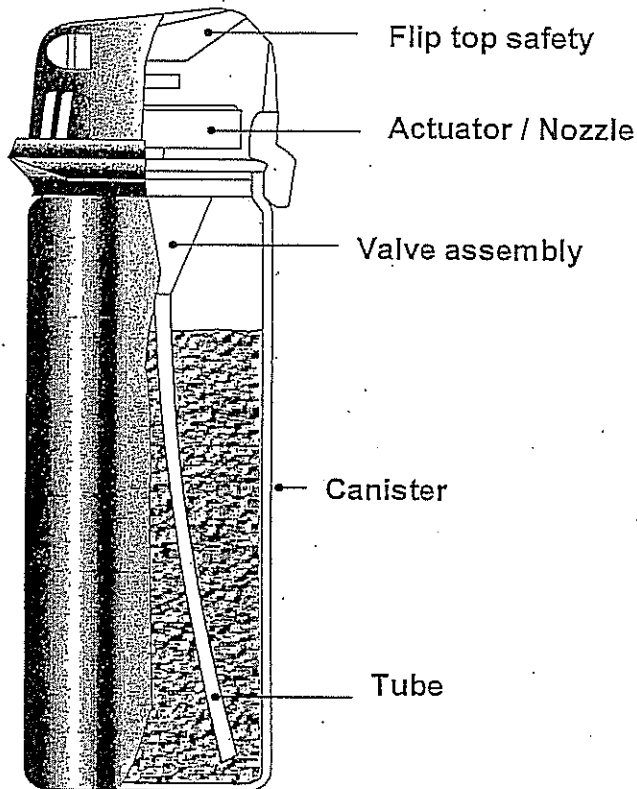
Safety Cover- plastic latch located on top of the actuator button.

Actuator Button- mechanism that activates the product.

Valve Stem- regulates the amount of product delivered to the nozzle.

Valve Assembly- connects the tube to the valve stem.

Tube- delivery system to the valve assembly.



Internal mixture: Carrier, emulsifier, solvents, and propellant (may cause yellowish orange discoloration).

#### Propellants

It is important to know the limitations of the contents. It should not be sprayed too close or too far as it may lose effectiveness in the two extremes. Too close due to safety and too far due to lack target contact.

#### HYDRAULIC NEEDLE EFFECT

The hydraulic needle effect is an important factor to consider when employing OC. This is the consequence of the OC particulate penetrating the soft tissue of the eye. This is due to the correlation between the distance and the amount of pressure in which it is delivered.

Concerns have been raised about the possibility of soft tissue injury, prolonged irritation or possibly infection.

Because of the possibility of the hydraulic needle effect, minimum safe distances have been established for each delivery system. Instances of hydraulic needle effect are rare, but nevertheless should be taken into consideration.

The safety of the individual employing OC should never be compromised by delaying the use of OC in tactical situations for the concern of a hydraulic needle effect. Let the tactical situation determine your tactical response.

### THE THREE LEVELS OF OC EXPOSURE/CONTAMINATION

When handling or using any type of chemicals, there are three levels of contamination. Each level will affect an individual differently. The three levels of contamination are:

Level 1. Direct physical contact with OC. Certification to carry OC requires a Level 1 contamination by being sprayed from ear to ear, across the brow (eyes closed), with a ½ to 1 second spray from an OC canister, 36 inches from the subject's face, followed by fight through drills involving empty hand/baton techniques, weapon retention and ending with the employment formula (command, evaluate, control, provide medical).

Level 2. Indirect or secondary contact with OC. A level 2 contamination is the result of attempting to control or physically touch another person, or item which has had a Level 1 contamination. Moving in to control an aggressor who has just received a Level 1 contamination may result in a Level 2 contamination to the individual employing the OC. For training, Level 2 exposure consists of spraying a cloth rag or sponge with a ½ to 1 second spray from an OC canister. The cloth is then wiped across both eyelids (eyes closed). Fight through stations must then be completed.

Level 3. An area contaminated with OC such as after using it in an aerosol form. Usually a Level 3 will occur when entering a contaminated zone or area. For training, a Level 3 exposure will consist of spraying an enclosed area with ½ to 1 second spray from an OC canister. The individual will then step fully into the contaminated area, and then out of the contaminated area. Fight through stations must then be completed.

### GENERAL EMPLOYMENT CONSIDERATIONS

#### Awareness

OC should be used early with the element of surprise and prior to escalation of physical contact. Communicate with fellow officers when spraying a subject who is in the proximity of or in physical contact with another officer. Use code words such as "spray" or "OC." Avoid words like "nuke him."

#### Target Area/Spray Volume

The primary target when employing OC is the facial area assuring coverage of the eye zone (eyes, forehead, and brow). The secondary target is the nose and mouth.

Discharge into facial area using a one-half to one second burst.

If the open eye is contaminated, a one-half to one second burst should be adequate to achieve the desired effects. In situations where the subject is sprayed around the eyes (i.e. forehead or cheek), an ample amount of OC should be employed to ensure enough fluids

are present to carry the OC particulate into the eyes.

For multiple subjects, move to a position of advantage and "stack" the attackers. Use multiple, short bursts of accurate spray to those within the effective range of your canister.

#### Cross Contamination.

Because the OC formulation is heavier than air, the vapor rate of OC is very low and minimizes the possibility of transfer or cross contamination. Vaporization is when a substance changes from a liquid to a gas state and should not be confused with very small droplets or particulate, which may remain airborne such as a fogger. These airborne particulates may move across rooms or through ventilation systems and are most prevalent in fog delivery systems.

Environmental factors such as wind and rain, fans or ventilation, and heat and humidity can also affect the possibility of cross contamination.

#### Employment Formula

**Spray** the subject until it is determined that the subject is contaminated or that the OC is ineffective and other measures are necessary.

**Command** subject to get on the ground. End every command with "Do it now."

**Evaluate** subject's response. Repeat steps 1 through 3 if required to escalate or de-escalate force.

**Control** subject. Avoid placing pressure/weight on subject's back.

**Medically check** the subject and start decontamination if the situation allows.

#### Flammability and Carcinogenic Properties.

Depending on whether a product is oil or water based, there will be a specific requirement for solvents and emulsifiers to ensure even suspension of the capsaicin. It is these ingredients that make up the majority of the formulation and should be closely evaluated for their safety.

The Marine Corps will only purchase and use OC sprays that are non-flammable and non-carcinogenic with a capsaicinoid content level between .18% and .22%.

**EFFECTS****Physiological Effects**

Involuntary closure of the eyes resulting in temporary visual impairment

The eyes will remain closed due to the drying of the natural protective fluid of the eyes

Involuntary extension of the hands to the facial area

A burning sensation and inflammation of the eyes, mucous membranes, and a burning sensation to contaminated skin and tissues

The secretion of excessive mucous from the nose

Shortness of breath

Capsaicin's inflammatory properties are a result of dilating blood vessels in the affected area. This action increases blood flow to the area resulting in minimal swelling. When this occurs within the nasal passages, the physiological effects trigger a psychological response, "I can't breathe."

The perceived inability to breathe can trigger a panic response, which manifests itself into hyperventilation

Approximately .005 of the general population may have an allergic reaction to various types of peppers. While most allergic reactions are not life threatening, it is necessary to provide medical treatment to any person believed to be having an allergic reaction. Any person who has been contaminated by an OC product who complains of itching, hives, difficulty in swallowing, or facial swelling should be evaluated by medical personnel without delay.

It is not possible to build immunity to OC

**Psychological Effects**

Anxiety is the fear of the unknown. It is normal for an individual to experience increased anxiety when faced with the unknown such as being contaminated by OC for the first time.

Some individuals may have an anxiety attack causing them to change their breathing rhythms.

Anyone who has never been contaminated with OC may display anxiety prior to contamination based on hearsay or rumors of its effects.

It is normal for an individual to experience fear before, during, and after any physical confrontation. Individuals who have never been contaminated with OC may have fears and a preconceived notion of what OC does.

Some individuals may panic and flee without thought for obstructions or trip hazards.

### Physiological Responses

Not everyone reacts the same way when sprayed with OC. Some individuals have dramatic reactions such as:

- Confusion and disorientation

- Hands go to face

- Upper body bends forward

- Legs become weak

- Body loses stability

- Hearing is impaired (auditory exclusion)

- Muscles become rigid (catalepsy)

These are some of the documented reactions a subject may have upon exposure. Others may not be affected at all. Anticipate that OC will not work, have a plan, an alternative plan and be prepared to escalate as appropriate.

### Effectiveness

The failure rate of OC is difficult to quantify, however, it does exist. OC has a varied reaction time that for most individuals is one to five seconds. The mental state of an individual may be a significant factor to consider. Some people have a very high threshold for pain, especially subjects who are emotionally disturbed or prone to substance and/or alcohol abuse. Mindset may influence effectiveness. Goal oriented and mentally focused individuals may still accomplish their goal even though they cannot see and are experiencing significant discomfort.

Weather, wind, environment, distance, pressure remaining in canister, distance to subject, hats, glasses, and clothing can all have a bearing on the outcome.

Many failures are due to operator errors because of the lack of training or the improper use of an OC product.

OC is a viable force option when used by properly trained individuals and in conjunction with other force options.

### Avoidance Tactics

Assailants train and practice to defeat attempts to spray by using:

- Clothing

- Hands/arms

- Positioning

- Objects

An officer may get contaminated by OC because of overspray, misapplication or by being sprayed by an assailant. If this occurs, the officer should take the following actions:

- Rapidly open and close (strobe) the eyes if possible

- Protect the pistol in the holster and keep the free-hand up in a defensive position to protect from attack

- Breathe slowly

**Stay calm**

Responding back-up officers should use caution and approach the officer in "distress" from the non-gun side and state "back-up on scene" or other pre-designated code words.

**After-Effects/Adverse Reaction**

OC causes very few incidents with adverse reactions. OC meets the criteria for chemical agent selection:

Produces rapid physiological action

Produces desired effects in low concentrations

Permits rapid recovery without lasting effects

No permanent damage to eyes, or respiratory system. Does not cause depigmentation of the skin

OC is biodegradable

**SPECIAL RISKS**

The following risks do not preclude OC use per the Force Continuum; just exercise caution.

Open wounds

Heart conditions

Respiratory illness

Very young

Elderly

Pregnancy

Bizarre actions

Positional asphyxia

Hypodermic needle effect

Panic attack

Anaphylaxis

Obesity

Use extra caution when dealing with people under the influence of drugs or alcohol. The chemicals they ingest, inhale or inject prior to the circumstances that brought you to the situation may have an unknown and unforeseen effect during or after a struggle or exertion.

**Positional Asphyxia**

Be alert to potential problems associated with prone positioning of a subject after handcuffing. It is important to roll the subject onto his or her side and/or sit the subject up to prevent any breathing issues.

**AFTER USE GUIDELINES**

Understand that OC may not work "immediately" or "instantaneously". Allow it to work 5 to 10 seconds. Properly applied, OC should begin to work within 2 to 5 seconds. OC does not work on everybody all the time. Create adequate space and time to let the OC take effect.

Once the OC does take effect, continue to control the situation and give loud, clear verbal directions to de-escalate and restrain the subject.

Monitor and verbally reassure safety of subject

Give verbal directions to determine compliance

Call for back-up and/or assistance

Only approach when subject is immobilized

Control & restrain subject

Remove subject from contaminated area

Move to cool air and provide water

Contact medical help if symptoms persist for greater than 45 minutes

At station, continue monitoring subject

Encourage decontamination through flushing eyes with cool water

Medical personnel remove contact lenses if necessary

Wash affected area with soap and water

DO NOT use creams, salves, solutions etc

Complete Statement of Force/Use of Detention Space Form (1630)



## PROCEDURES TO SECURE AND HANDLE SUBJECTS

The following establishes a basic set of procedures to follow after application of OC

Securing the Subject .

After the subject has been sprayed, he should be verbally ordered to a prone position. End each set of instruction with, "Do it now!"

Instruct the subject to get on the ground, place arms out to the side, palms up, face away, and cross his feet.

Handcuff or flexi cuff and assure them that they will be treated and the effects will dissipate shortly. Have them keep their head turned to the side.

Keep in mind that you have just contaminated the subject with the OC and their breathing is already difficult. Do not press down on their back to restrict breathing even more.

In-Custody Handling

Restrain. After the subject is restrained, begin decontamination process as soon as practical. Cool air and water is the primary means of decontamination.

Transport. During transport, periodically reassure the subject to stay calm.

Monitor the subject for medical distress, coherence, and respiration.

Detention

Only medical personnel should remove contact lenses. Hard lenses may be thoroughly cleansed and reused. Contaminated soft lenses should never be reused.

Sudden cessation of aggressive or agitated behavior by individuals under the influence of drugs or alcohol could signify the onset of medical distress.

The three major causes of sudden death because of pre-existing medical conditions or the enhanced affects of drugs, while the subject is detained are:

Lack of supervision.

Failing to provide immediate medical attention.

Improper and inaccurate spray technique.

"Sudden In-Custody Death Syndrome" or positional asphyxia is not a new phenomenon nor is it exclusive to the use of chemical sprays. It is important for users to be familiar with positional asphyxia and recognize the possibility that it may occur. The International Association of Chiefs of Police studied the relationship between OC and sudden in-custody death and found there was no correlation.

**GENERAL DECONTAMINATION/RECOVERY****Decontamination**

If feasible, back-up officer or other officer(s) available should un-handcuff/decontaminate the suspect(s) upon arrival at PMO.

Remove the subject from the contaminated area and establish a verbal rapport.

Expose the subject to fresh air and face him into the wind. Fans or air conditioning units may be used.

Tell the subject to breathe in through the mouth, and out through the nose.

Tell the subject to strobe the eyes (open and close rapidly).

If it is practical before transporting, apply immediate first aid decontamination such as water. **DO NOT ALLOW THE SUBJECT TO RUB HIS OR HER EYES.**

Once transported to PMO, seek cooperation from subject and, if feasible, use of a wet paper towel pressed on the face followed by a dry paper towel has proven to be the most effective way to remove the resin from the skin. They should be applied numerous times until the resin is removed.

If subject is wearing contact lenses, only qualified personnel should remove contact lenses. Do not allow the subject to remove the lenses, especially hard contact lenses. Difficulty removing contact lenses may cause abrasions to the cornea or sclera (the white part of the eye). Medical personnel will remove contacts.

When a viable water source is available, have the subject flush his eyes with copious amounts of cool water. Encourage the subject to force open the eyes in order to flush out the OC.

Have subject remove contaminated clothing (mission dictating).

**DO NOT** use any creams, salves, or oils.

**DO NOT** use any commercial eyewash during the decontamination process.

Use non-oil based soap and water to remove OC from contaminated skin.

**Recovery**

Usually an individual will recover within 1 hour with vast improvements. The eyes should be able to open within 20 to 30 minutes.

Anyone not exhibiting significant improvement after 1 hour should be closely monitored to ensure continued recovery.

**First Aid Considerations**

OC formulations which exceed 0.60% capsaicin increase the potential for burns, particularly in fair-skinned persons (those who sunburn easily).

Any person who exhibits sunburn-like redness more than 1 hour after being decontaminated or who shows any evidence of blistering (second degree burns) after being sprayed should receive medical treatment for burns.

Avoid salves and ointments until affected area has been completely decontaminated.

Once a subject has been restrained after being sprayed, the user should conduct a primary medical survey: Airway, Breathing, and Circulation.

Open the airway.

Check for signs of obstruction in the mouth.

Check for signs of responsiveness.

No person who has been contaminated by OC or any other chemical agent should be left unsupervised for at least two hours after contamination.

Medical personnel should evaluate any person who admits to being under the influence of any drugs or alcohol immediately.

Medical personnel should evaluate any person who indicates a history of heart problems, lung problems, diabetes, high blood pressure, or any other potentially serious medical condition.

#### Area Decontamination

OC is biodegradable and does not require special equipment for decontamination. With normal ventilation or by using high-speed fans, buildings, rooms, and vehicles can be decontaminated in thirty to forty-five minutes. OC may be washed down drains. For general clean up of exposed surfaces, blot clean with damp rag and non-oil based soap. Clothes may be laundered as normal with other clothing.

Officers should notify persons in area of contamination (i.e. roommate, home owners) to thoroughly cleanse the area especially if the area is used by infants/toddlers, the elderly, or anyone with bronchial/respiratory problems.

### DRAWING METHODS, GRIP METHODS AND STANCES WHEN EMPLOYING OC

#### Drawing

There are three basic ways of drawing the OC canister from the holster. Each method is acceptable, however, practice is recommended on each.

Strong Side Draw. This is a draw where the canister is worn on the strong side of the user's body. The user unfastens the top of the holster with the strong hand, removes the canister with the strong hand, and assumes a ready position.

Cross Draw. This is a draw where the canister is worn on the support side of the user's body. The user unfastens the top of the holster with the strong hand, removes the unit from the holster with the strong hand and assumes a ready position.

Tactical Assist. This is a draw where the canister is worn on the strong or support side of the body. The user will unfasten the holster with the support hand while simultaneously drawing the canister with the strong hand and assumes a ready position.

#### Grip Methods

Proper grip of the hand held OC canister is just as important as drawing the canister.

MK-4 Canister. Grip the canister using a "C" clamp. The fingers are extended firmly around the canister and snugly kept together with thumb over the safety lid until ready to dispense and the index finger is under the nozzle guard or vice versa. Actuation of the OC occurs by using the thumb or index finger whichever feels most comfortable.

MK-9 Canister. Improper grip of the MK 9 canister could result in a very unfavorable outcome for the user. Proper grip is achieved when:

The canister is held in the support hand. The fingers are securely wrapped around the canister and held tightly against the strong side of the body.

The strong hand grips the handle while the thumb is used to actuate the OC. If not held in this fashion, the aggressor may be able to grab the canister and detach it from the handle. If this should happen, it will cause the contents to completely engulf the user because of the pressurization and separation of the handle from the canister.

#### Stances

Two Hand Stance. The canister is held with the bottom of the canister over the user's forward foot. Do not fully extend the arm holding the canister. The support hand is wrapped around the dominant hand (pistol grip). This stance presents a dominant and authoritative appearance and alerts others that OC is being used.

One Hand Stance. The canister is held with either hand. The bottom of the canister is over the user's front foot. Do not fully extend the arm holding the canister. The opposite hand is positioned across the chest, do not extend the free hand in front of the canister. This stance presents a dominant and authoritative appearance allowing for easy transitions between weapons and provides a clearing or checking hand.

Two Hand Conceal Carry/Front Position. The user assumes a good, stable ready position with the canister held in front of and close to the body. Both of the elbows remain above the user's duty belt placing the free hand over the unit to conceal it from view. The thumb should be kept off the actuator and on the safety cap. This carry presents a professional appearance and a low profile approach for the user and will not alert other bystanders that the user is ready to employ OC. Designated finger needs to be above the flip-top safety to prevent accidental discharge.

Low Profile Carry. The user assumes a good stable ready position with the canister held in the strong hand extended down to his or her side keeping the thumb on the safety cap and placing the knuckles of that hand to the center of the buttocks. Primarily used for approaching a subject from a concealed area. This carry presents a professional low profile approach for the user, which will not alert other bystanders that the user is ready to employ OC. Designated finger needs to be above the flip-top safety to prevent accidental discharge.

## Accurate Spray Technique

If the situation warrants the use of OC, then draw and grip the OC and follow these steps:

## SHAKE

Periodically "shake" the unit after you receive from the armory

Shake the unit before each use (if time permits)

## SHOUT - Use verbal commands

"STOP"

"NO"

"DOWN"

"SPRAY"

## SPRAY

Hold OC in strong hand

Use ¼ - ½ second spray/burst— target face

Say "tsst" to approximate 1 second when spraying

Spray for less than one second

Use short bursts (normal conditions)

Use longer bursts

In moving air

Greater distances

When spraying multiple subjects

Immediately create distance and verbalize

Use caution with "stream units" as they may cause eye injury (maintain 4-6' distance)

Follow manufacturer guidelines

## SHUFFLE

Sprayer should move and assess as subjects often continue to attack

Shuffle (forward/rear)

Lateral shuffle (right/left)

Pivot (forward/rear/quarter)

## DO NOT SPRAY AND STAY!

If the OC does not take effect, you should re-evaluate the situation, determine if an additional spray is warranted (you may have missed) or create distance and choose another force option. OC is only one tool on your tool belt and you must be prepared to use a different tool as necessary based on resistance.

