

Santa Clara County Sheriff's Office  
CHEMICAL AGENTS  
2770-80300  
Expanded Course Outline  
Rev: 01/07/2021

OBJECTIVE: Students will understand the history, terminology, capabilities, deployment methods, exposure symptoms, and decontamination procedures in order to safely and effectively handle and deploy chemical agents and gas masks. Students will meet the C.C.R. 1081 training requirements and Penal Code 22820 for all peace officers who will be using aerosol chemical agents and who are expected to use an air purifying respirator (APR) in a chemical agent environment. This Course complies with the legislative content and mandates of AB 392, SB 230, and PC835a.

LEARNING OUTCOMES; By the end of this course students will be able to know the history, terminology, capabilities, deployment methods, exposure symptoms, and decontamination procedures in order to safely and effectively handle and deploy chemical agents and gas masks. Comprehension will be demonstrated by successful completion of learning activities involving the application of inert chemical agent simulant and simulating the required decontamination techniques.

I. Introduction to Chemical Agents

A. Evolution of Chemical Agents **(1081 A(1))**

1. Early uses
  - a. Ancient China
  - b. Uses in warfare
2. Adaptions of Chemical Agents for Police Use
  - a. 1960's, Tear Gas and Mace
  - b. 1970's – introduction of OC and chemical improvements in Tear Gas
  - c. Establishing policies for uses of OC and Tear gas
3. Today's Use
  - a. Focus on Less Lethal
  - b. Gain compliance from individuals or crowds
  - c. Agent deployed based on situation and need

B. Today's Types of Chemical Agents **(1081 A(3))**

1. Oleoresin Capsicum (OC); AKA – Pepper Spray
  - a. Aerosol
  - b. Canisters and delivery methods
    - i) Standard issue
    - ii) MK-9
  - c. Primary uses and delivery methods
2. O-chlorobenzalmalonitrile, Type of Teargas (CS)

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- a. Delivery Methods
  - b. Primary use and limitations
3. Chloroacetophenone (CN); Type of Tear Gas
    - a. CS differences from CN
    - b. Limitations of use and agency policies
- C. **Statutory requirements for the possession and use of chemical agents**  
**(1081 A(2))**
1. Related terms
  2. Law enforcement use
  3. Unlawful possession
  4. Conditions for lawful possession
  5. Possession by the general public
  6. Possession by a minor
  7. Product labeling
  8. Altering product labels
  9. Federal law
  10. Passenger aircraft
- D. **Methods used to deploy chemical agents** **(1081 A(4))**
1. Aerosol
  2. Fogging
  3. Pyrotechnics
  4. Blast expulsion
- II. **Deploying Chemical Agents** **(1081 A(5))**
- A. **Environmental and physical conditions that can impact the effectiveness of a chemical agent**
1. Wind
  2. Rain
  3. Temperature
  4. Distance
  5. Proximity of others
- B. **Guidelines for safely carrying, drawing, and deploying hand-held canisters of chemical agents**
1. Carrying hand-held containers
  2. Drawing hand-held containers
  3. Deploying the chemical agent
  4. Response to exposure
  5. Officer safety

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- C. AB392 and SB230 / Use of Force Legal Issues
  - 1. Emphasis on de-escalation / Tactical repositioning
  - 2. Emphasis on duty to intervene
  - 3. Policy Considerations / Changes
  - 4. Duty to warn
  - 5. At Risk Populations
  
- D. Decontamination procedures that should be followed after a chemical agent has been used
  - 1. Eyes
  - 2. Skin
  - 3. Nose
  - 4. Chest
  
- E. Physiological and psychological effects of chemical agents used by peace officers:
  - 1. OC (oleoresin capsicum)
    - a. Introduction
    - b. Characteristics
    - c. Makeup
    - d. Canisters
    - e. Effects
    - f. Recovery time
  - 2. CN (chloroacetophenone)
    - a. Introduction
    - b. Characteristics
    - c. Makeup
    - d. Canisters
    - e. Effects
    - f. Recovery time
  - 3. CS (ortho-chlorobenzylidene-molononitrile)
    - a. Introduction
    - b. Characteristics
    - c. Makeup
    - d. Canisters
    - e. Effects
    - f. Recovery time

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- F. Guidelines for care and maintenance of aerosol chemical agent devices **(1081 A(6))**
  - 1. Transport
  - 2. Storage
  - 3. Inventory Procedures
  - 4. Maintenance
  
- G. Guidelines disposal of aerosol chemical agent devices **(1081 A(7))**
  - 1. Indicators of failing aerosol chemical agent devices
  - 2. Disposal procedures
  - 3. Safety factors
  - 4. Inventory tracking of disposed units
  - 5. Agency policy
  
- III. Use of Gas Mask **(1081 B(1))**
  - A. Demonstrate proper procedures peace officers should follow when using gas masks, to include:
    - 1. Inspection
      - a. Look for signs of damage
      - b. Look for missing, cracked, or scratched lenses
      - c. Examine the condition of all intake and exhaust valves or covers for worn or broken head straps
      - d. Ensure appropriate filters
      - e. Mask is an appropriate size
    - 2. Proper fit
      - a. Loosen all adjusting straps
      - b. Place chin in the mask chin rest
      - c. Raise the head harness over the back of the head
      - d. Tighten the head straps as appropriate from bottom to top
      - e. Clear the mask
      - f. Seal the mask
      - g. Mask is airtight if it pulls against the face and remains there while breath is being held
    - 3. Cleaning and storage
      - a. Remove the filters
      - b. Wash with mild soap and water
      - c. Rinse thoroughly with warm to hot water
      - d. Dry completely with a warm to hot current of air
      - e. Inspect for any chemical agent residue
      - f. Re-clean if necessary

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IV. Practical Application of Gas Mask **(1081 B(2))**

- A. Students will participate in an activity that requires practical use of Gas Mask but absent exposure to nonlethal, riot control chemical agent:
1. Proper use of a gas mask including the pre-inspection, fitting and clearing of the mask
  2. Practice Decontamination techniques

V. Practical Use of Inert OC spray

- A. Using inert spray, students will participate in practical dispersal of Inert OC **(1081 A(8))**
1. Canister function
  2. Spray practice
  3. Limitations of distance and control
  4. Assessing environmental impact on use