

## AREA DECONTAMINATION FOR OC

- STEP 1: Ventilate the building to remove airborne OC. Open all doors and windows that weather permits. This should be accomplished as soon as possible. If fans can be placed to increase ventilation, this will help.
- STEP 2: Surfaces can be decontaminated by washing with water or a damp cloth. The dry OC residue may be collected by means of a wet/dry vac. Dry OC residue which comes out of a Muzzle Blast, Instantaneous Blast, or a powder Ferret® product only. Wet clean where possible, using commercially available detergents like Dawn or Simple Green.
- STEP 3: Clothing and other fabrics can be cleaned in their usual manner (either by machine washing or dry cleaning).
- NOTE: Rubber gloves and a gauze face mask should be used by personnel during the clean up stage to prevent the possibility of residual contamination. OC is a better indoor deployment option than CN or CS, as positive clean up and re-occupation of the structure can usually take place within one to two hours. Minimal clean up costs need be imposed on the deploying agency.

## FIRST AID FOR OC

### I. GENERAL:

1. Remove affected person from the contaminated area to an open space, facing the wind.
2. Keep subject calm and restrict activity.
3. Most subjects will be well on their way to total recovery 45 minutes after first aid begins.

### II. EYES:

Intense burning sensation, temporary inflammation of the tissues around the eyes, causing involuntary closure.

1. Wash eyes out with large amounts of cool water.
2. **DO NOT** allow the subject to rub their eyes or face. If the need arises to use a paper towel, use a blotting motion and discard after one use.
3. Find out if subject is wearing contact lenses. If so, allow them to remove the lenses or call EMS to remove them. **DO NOT** attempt to remove unless medically trained to do so. Contacts may become contaminated and may need to be discarded.
4. Keep eyes open facing wind.
5. Tearing helps clear the eyes.
6. Keep exposed subjects out of direct sunlight during the decontamination process. The brighter and hotter the direct sunlight is, the more it enhances the burning sensation.

### III. NOSE:

Irritation, burning sensation, nasal discharge.

1. Breathe normally.
2. Blow nose to discharge any material.

### IV. SKIN:

Burning sensation on affected skin areas. Redness may occur on fair skinned individuals.

1. **DO NOT** apply creams, salves, oils, lotions or burn cream as they will only trap the OC on the skin.
2. Flush the skin with large amounts of cool water and expose the subject to fresh air.
3. Further relief may be gained by showering with cool water using mild soap and shampooing hair. Wash thoroughly, rinsing often to manage any contaminated water on your body.

Contact Defense Technology® with any questions regarding these procedures.

Approved for public release; distribution is unlimited



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## AREA DECONTAMINATION FOR CN and CS

- STEP 1: Ventilate the building to remove airborne CN or CS. Open all doors and windows that weather permits. The sooner this can be done, the better. If fans can be placed to increase ventilation, this will help. Remove spent chemical agent casings immediately as they are heavily contaminated. Remove all contents for separate decontamination.
- STEP 2: If CN or CS powder was used, a commercial water vacuum cleaner should be used to trap the powder. Wet clean where possible, using commercially available detergents like Dawn or Simple Green.
- STEP 3: Shut all doors and windows and heat the building as hot as is practical (at least four hours at a minimum of 95° F (35°C)). Open a window at each end of the building. Place a fan blowing to the outside at one of the openings. Continue to heat the building. This vaporizes much of the CN or CS and carries it out of the building.
- STEP 4: Surfaces which will not be damaged can be decontaminated with a 5% solution of baking soda (sodium bicarbonate).
- STEP 5: Dry cleaning is suggested for decontaminating clothing and other fabrics. More than one treatment may be necessary.
- STEP 6: Exposed foods will absorb CN and CS and should be discarded. CN and CS penetrate many plastics, so wrapped foods will probably be contaminated. Foods in cans may be usable after the outside of the cans have been thoroughly cleaned. Always check with the local health department regarding the sale of merchandise that has been exposed to chemical agents.
- NOTE: Rubber gloves and a gauze face mask should be used by personnel during the clean up stage to prevent the possibility of residual contamination. In heavily contaminated premises, some of the above steps will need to be repeated a number of times to remove lingering traces of CN and CS.

## FIRST AID FOR CN and CS

### I. GENERAL:

1. Remove affected person from the contaminated area to an open space, facing the wind if possible
2. Remain calm. Restrict activity.
3. Major discomfort should disappear within 10 to 20 minutes. If major discomfort persists, contact EMS.

### II. EYES:

Burning sensation, heavy flow of tears, involuntary closing of eyes.

1. Keep eyes open facing wind.
2. Do not rub eyes.
3. Tearing helps clear the eyes.
4. If effects persist, wash out with large amounts of water.

### III. SKIN:

Stinging or burning sensations on moist skin areas. In some extreme cases, blisters may form.

1. **DO NOT** apply creams, salves, oils, lotions, or burn cream, as they will only trap the agent on the skin.
2. Sit and remain quiet.
3. Expose the affected areas to air.
4. Cross contamination can be relieved by flushing with fresh water for at least 10 minutes.
5. For CS, a solution of 5% to 10% sodium bicarbonate or sodium carbonate is superior to water.

### IV. CHEST:

Irritation, burning sensation, coughing, the sensation of shortness of breath, tightness in chest, often accompanied by a feeling of panic.

1. Keep subject calm and restrict activity.
2. Talking reassuringly to the victim may help to relieve their discomfort and prevent panic.

### NOTE:

If at any point the subject states or appears that they are in medical distress, immediately contact the EMS or a Medical Service Unit.

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## AREA DECONTAMINATION FOR OC/CN and OC/CS

- STEP 1: Ventilate the building to remove airborne CN or CS. Open all doors and windows that weather permits. The sooner this can be done, the better. If fans can be placed to increase ventilation, this will help. Remove spent chemical agent casings immediately as they are heavily contaminated. Remove all contents for separate decontamination.
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- NOTE: Rubber gloves and a gauze face mask should be used by personnel during the clean up stage to prevent the possibility of residual contamination. In heavily contaminated premises, some of the above steps will need to be repeated a number of times to remove lingering traces of CN and CS.

## FIRST AID FOR OC/CN and OC/CS

### I. GENERAL:

1. Remove affected person from the contaminated area to an open, upwind position.
2. Keep subject calm and restrict activity.
3. Most subjects will be well on their way to total recovery 45 minutes after first aid begins.

### II. EYES:

Intense burning sensation, temporary inflammation of the tissues around the eyes, causing involuntary closure.

1. Wash eyes out with large amounts of cool water.
2. **DO NOT** allow the subject to rub their eyes or face. If the need arises to use a paper towel, use a blotting motion and discard after one use.
3. Find out if subject is wearing contact lenses. If so, allow them to remove the lenses or call EMS to remove them. **DO NOT** attempt to remove unless medically trained to do so. Contacts may become contaminated and may need to be discarded.
4. Keep eyes open facing wind.
5. Tearing helps clear the eyes.

### III. NOSE:

Irritation, burning sensation, nasal discharge.

1. Breathe normally.
2. Blow nose to remove discharge and particulates.

### IV. SKIN:

Burning sensation on affected skin areas. Redness may occur on fair-skinned individuals.

1. **DO NOT** apply creams, salves, oils, lotions or burn cream as they will only trap the agent on the skin.
2. Flush the subject's skin with large amounts of cool water and expose the subject to fresh air.
3. Further relief may be gained by showering with cool water using mild soap and shampooing hair. Wash thoroughly, rinsing often to manage any contaminated water on your body.

### V. CHEST:

Irritation, burning sensation, coughing, the sensation of shortness of breath, tightness in chest, often accompanied by a feeling of panic.

1. Subject should relax and keep calm.
2. Talking reassuringly to the subject may help to relieve their discomfort and prevent panic.

### NOTE:

If at any point the subject states or appears that they are in medical distress, immediately contact the EMS or a Medical Service Unit.

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