

APPENDIX F

DECONTAMINATION PROCEDURES

F-1. Protective Measures and Handling of Casualties

a. Depending on the theater of operations, guidance issued may dictate the assumption of a minimum mission-oriented protective posture (MOPP) level. However, a full protective posture (MOPP 4) level will be assumed immediately when the alarm or command is given. (MOPP 4 level consists of wearing the protective overgarment, mask, hood, gloves, and overboots.) If individuals find themselves alone without adequate guidance, they should mask and assume the MOPP 4 level under any of the following conditions.

(1) Their position is hit by a concentration of artillery, mortar, rocket fire, or by aircraft bombs if chemical agents have been used or the threat of their use is significant.

(2) Their position is under attack by aircraft spray.

(3) Smoke or mist of an unknown source is present or approaching.

(4) A suspicious odor or a suspicious liquid is present.

(5) A toxic chemical or biological attack is suspected.

(6) They are entering an area known to be or suspected of being contaminated with a toxic chemical or biological agent.

(7) During any motor march, once chemical warfare has been initiated.

(8) When casualties are being received from an area where chemical agents have reportedly been used.

(9) They have one or more of the following signs/symptoms:

(a) An unexplained sudden runny nose.

(b) A feeling of choking or tightness in the chest or throat.

(c) Blurring of vision and difficulty in focusing the eyes on close objects.

(d) Irritation of the eyes (could be caused by the presence of several toxic chemical agents).

rate of breathing, (e) Unexplained difficulty in breathing or increased

(f) Sudden feeling of depression.

(g) Dread, anxiety, restlessness.

(h) Dizziness or light-headedness.

(i) Slurred speech.

others. (10) Unexplained laughter or unusual behavior noted in

(11) Buddies suddenly collapsing without evident cause.

b. Stop breathing don the protective mask, seat it properly, clear it, and check it for seal; then resume breathing. The mask should be worn until unmasking procedures indicate no chemical agent is in the air and the “all clear” signal is given. (See FM 3-4 for unmasking procedures.) If vomiting occurs, the mask should be lifted momentarily and drained— while the eyes are closed and the breath is held—and replaced, cleared, and sealed.

c. Casualties contaminated with a chemical agent may endanger unprotected personnel. Handlers of these casualties must wear a protective mask, protective gloves, and chemical protective clothing until the casualty’s contaminated clothing has been removed. The battalion aid station should be established upwind from the most heavily contaminated areas, if it is expected that troops will remain in the area six hours or more. Collective protective shelters must be used to adequately manage casualties on the integrated battlefield. Casualties must be undressed and decontaminated, as required, in an area equipped for the removal of contaminated clothing and equipment prior to entering collective protection. Contaminated clothing and equipment should be placed in airtight containers or plastic bags, if available, or removed to a designated dump site downwind from the aid station.

F-2. Personal Decontamination

Following contamination of the skin or eyes with vesicants (mustards, lewisite, and so forth) or nerve agents, personal decontamination must be carried out immediately. This is because chemical agents are effective at very small concentrations and within a very few minutes after exposure, decontamination is marginally effective. Decontamination consists of either removal and/or neutralization of the agent. Decontamination after

absorption occurs may serve little or no purpose. Soldiers will decontaminate themselves unless they are incapacitated. For soldiers who cannot decontaminate themselves, the nearest able person should assist them as the situation permits.

NOTE

In a cyanide only environment, there would be no need for decontamination.

a. Eyes. Following contamination of the eyes with any chemical agent, the agent must be removed instantly. In most cases, identity of the agent will not be known immediately. Individuals who suspect contamination of their eyes or face must quickly obtain overhead shelter to protect themselves while performing the following decontamination process:

- (1) Remove and open your canteen.
- (2) Take a deep breath and hold it.
- (3) Remove the mask.

(4) Flush or irrigate the eye, or eyes, immediately with large amounts of water. To flush the eyes with water from a canteen (or other container of uncontaminated water), tilt the head to one side, open the eyelids as wide as possible, and pour water slowly into the eye so that it will run off the side of the face to avoid spreading the contamination. This irrigation must be carried out despite the presence of toxic vapors in the atmosphere. Hold your breath and keep your mouth closed during this procedure to prevent contamination and absorption through the mucous membranes. Chemical residue flushed from the eyes should be neutralized along the flush path.

WARNING

DO NOT use the fingers or gloved hands for holding the eyelids apart. Instead, open the eyes as wide as possible and pour the water as indicated above.

(5) Replace, clear, and check your mask. Then resume breathing.

(6) If contamination was picked up while flushing the eyes, then decontaminate the face. Follow procedure outlined in paragraph *b (2) (a)-(ae)* below.

b. Skin (Hands, Face, Neck, Ears, and Other Exposed Areas).
 The M258A1 Skin Decontamination Kit (Figure F-1) is provided individuals for performing emergency decontamination of their skin (and selected small equipment, such as the protective gloves, mask, hood, and individual weapon).

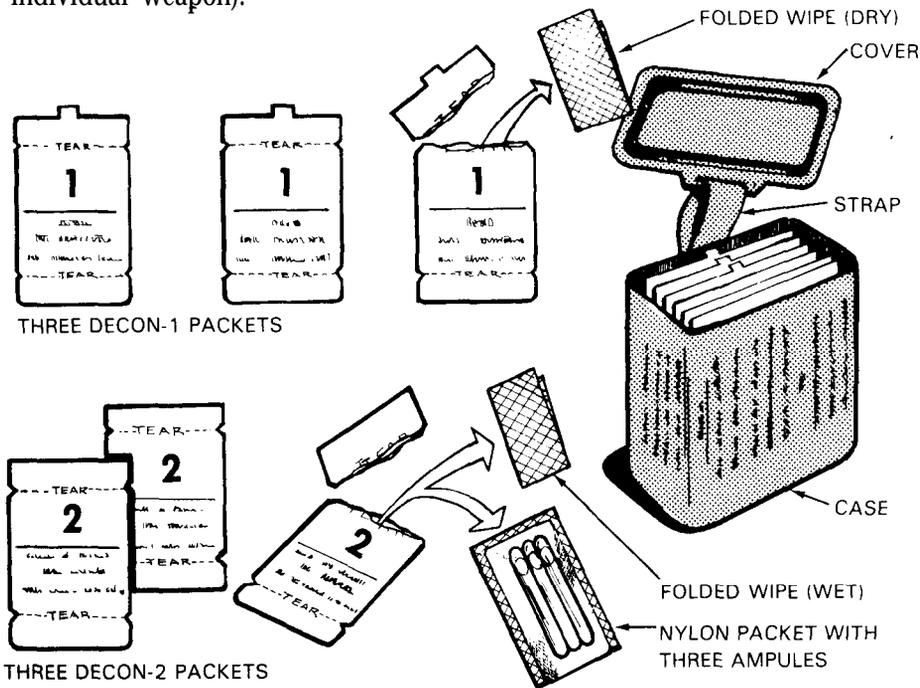


Figure F-1. M258A1 Skin Decontamination Kit.

(1) *Description of the M258A1 kit.* The M258A1 kit measures 1 3/4 by 2 3/4 by 4 inches and weighs 0.2 pounds. Each kit contains six packets: three DECON-1 packets and three DECON-2 packets. DECON-1 packet contains a pad premoistened with hydroxyethane 72%, phenol 10%, sodium hydroxide 5%, and ammonia 0.2%, and the remainder water. DECON-2 packet contains a pad impregnated with chloramine B and sealed glass ampules filled with hydroxyethane 45%, zinc chloride 5%, and the remainder water. The case fits into the pocket on the outside rear of the M17 series protective mask carrier or in an inside pocket of the carrier for the M24 and M25 series protective mask. The case can also be attached to the web belt or on the D ring of the protective mask carrier.

(2) *Use of the M258A1 kit.* It should be noted that the procedures outlined in paragraphs (a) thru (ae) below were not intended to replace or supplant those contained in STP 21-1-SMCT but, rather, to expand on the doctrine of skin decontamination.

WARNING

The ingredients of the DECON-1 and DECON-2 packets of the M258A1 kit are, poisonous and caustic and can permanently damage the eyes. KEEP PADS OUT OF THE EYES, MOUTH, AND OPEN WOUNDS. Use water to wash the toxic agent out of the eyes or wounds, except in the case of mustard, Mustard may be removed by thorough immediate wiping.

WARNING

The complete decon (WIPES 1 and 2) of the face must be done as quickly as possible—3 minutes or less.

WARNING

DO NOT attempt to decontaminate the face or neck *before* putting on a protective mask.

NOTE

Use the buddy system to decontaminate exposed skin areas you cannot reach.

NOTE

Blisters caused by blister agents are actually burns and should be treated as such. Blisters which have ruptured are treated as open wounds.

(a) Put on the protective mask (if not already on).

(b) Seek overhead cover or use a poncho for protection against further contamination.

one DECON-1 WIPE packet by its tab. (c) Remove the M258A1 kit. Open the kit and remove

then unfold it. (d) Fold the packet on the solid line marked BEND,

remove the wipe and fully open it. (e) Tear open the packet quickly at the notch, and

(f) Wipe your hands.

NOTE

If you have a chemical agent on your face, do steps (g) through (t). If you do not have an agent on your face, do step (m), continue to decon other areas of contaminated skin, then go to step (n).

NOTE

You must hold your breath while doing steps (g) through (l). If you need to breathe before you finish, reseal your mask, clear it and check it, then continue.

and mask from your chin. (g) Hold your breath, close your eyes, and lift the hood

(h) Scrub up and down from ear to ear.

1. Start at an ear.

2. Scrub across the face to the corner of the nose.

3. Scrub an extra stroke at the corner of the nose.

corner of the nose. 4. Scrub across the nose and tip of the nose to the

5. Scrub an extra stroke at the corner of the nose.

6. Scrub across the face to the other ear.

jawbone. (i) Scrub up and down from the ear to the end of the

- mouth.
 1. Begin where step (h) ended.
 2. Scrub across the cheek to the corner of the
- mouth.
 3. Scrub an extra stroke at the corner of the
- the upper lip.
 4. Scrub across the closed mouth to the center of
 5. Scrub an extra stroke above the upper lip.
- the mouth.
 6. Scrub across the closed mouth to the corner of
- mouth.
 7. Scrub an extra stroke at the corner of the
- jawbone.
 8. Scrub across the cheek to the end of the

(j) Scrub up and down from one end of the jawbone to the other end of the jawbone.

- cupping the chin.
 1. Begin where step (i) ended.
 2. Scrub across and under the jaw to the chin,
 3. Scrub an extra stroke at the cleft of the chin.
 4. Scrub across and under the jaw to the end of
- the jawbone.

(k) Quickly wipe the inside of the mask which touches the face.

(l) Reseal, clear, and check the mask. Resume breathing.

(m) Using the same DECON-1 WIPE, scrub the neck and the ears.

(n) Rewipe the hands.

(o) Drop the wipe to the ground.

(p) Remove one DECON-2 WIPE packet, and crush the encased glass ampules between the thumb and fingers. DO NOT KNEAD.

(q) Fold the packet on the solid line marked CRUSH AND BEND, then unfold it.

(r) Tear open the packet quickly at the notch and remove the wipe.

(s) Fully open the wipe. Let the encased crushed glass ampules fall to the ground.

(t) Wipe your hands.

NOTE

If you have an agent on your face, do steps (u) through (ae). If you do not have an agent on your face, do step (aa), continue to decon other areas of contaminated skin, then go to step (ab).

NOTE

You must hold your breath while doing steps (u) through (z). If you need to breathe before you finish, reseal your mask, clear it and check it, then continue.

(u) Hold your breath, close your eyes, and lift the hood and mask away from your chin.

(v) Scrub up and down from ear to ear.

1. Start at an ear.

2. Scrub across the face to the corner of the nose.

3. Scrub an extra stroke at the corner of the nose.

4. Scrub across the nose and tip of the nose to the corner of the nose.

5. Scrub an extra stroke at the corner of the nose.

6. Scrub across the face to the other ear.
- (w) Scrub up and down from the ear to the end of the jawbone.
1. Begin where step (v) ended.
 2. Scrub across the cheek to the corner of the mouth.
 3. Scrub an extra stroke at the corner of the mouth.
 4. Scrub across the closed mouth to the center of the upper lip.
 5. Scrub an extra stroke above the upper lip.
 6. Scrub across the closed mouth to the corner of the mouth.
 7. Scrub an extra stroke at the corner of the mouth.
 8. Scrub across the cheek to the end of the jawbone.
- (x) Scrub up and down from one end of the jawbone to the other end of the jawbone.
1. Begin where step (w) ended.
 2. Scrub across and under the jaw to the chin, cupping the chin.
 3. Scrub an extra stroke at the cleft of the chin.
 4. Scrub across and under the jaw to the end of the jawbone.
- (y) Quickly wipe the inside of the mask which touches the face.
- (z) Reseal, clear, and check the mask. Resume breathing.
- (aa) Using the same DECON-2 WIPE, scrub the neck and ears.
- (ab) Rewipe the hands.

(ac) Drop the wipe to the ground.

(ad) Put on the protective gloves and any other protective clothing, as appropriate. Fasten the hood straps and neck cord.

(ae) Bury the decontaminating packet and other items dropped on the ground, if circumstances permit.

c. Clothing and Equipment. Although the M258A1 may be used for decontamination of selected items of individual clothing and equipment (for example, the soldier's individual weapon), there is insufficient capability to do more than emergency spot decontamination. The M258A1 is not used to decontaminate the protective overgarment. The protective overgarment does not require immediate decontamination since the charcoal layer is a decontaminating device; however, it must be exchanged, using the procedures outlined in FM 3-5. The Individual Equipment Decontamination Kit (DKIE), M280 (similar in configuration to the M258A1), is used to decontaminate equipment such as the weapon, helmet, and other gear that is carried by the individual.

F-3. Casualty Decontamination

Contaminated casualties entering the medical treatment system are decontaminated through a decentralized process. This is initially started through self-aid and buddy aid procedures. Later, units should further decontaminate the casualty before evacuation. Casualty decontamination stations are established at the field medical treatment facility to further decontaminate these individuals (clothing removal and spot decontamination, as required) prior to treatment and evacuation. These stations are manned by nonmedical members of the supported unit under supervision of medical personnel. There are insufficient medical personnel to both decontaminate and treat casualties. The medical personnel must be available for treatment of the casualties during and after decontamination by nonmedical personnel. Decontamination is accomplished as quickly as possible to facilitate medical treatment, prevent the casualty from absorbing additional agent, and reduce the spread of chemical contamination.