

## Appendix A

# EQUIPMENT LIST

### MCU-2A/P Protective Mask

<i>Size</i>	<i>National Stock Number (NSN)</i>
S	4240-01-327-4148
M	4240-01-327-4149
L	4240-01-327-4150

### M40A1 Chemical Biological Field Protective Mask

<i>Size</i>	<i>NSN</i>
S	4240-01-258-0061
M	4240-01-258-0062
L	4240-01-258-0063

### M42A2 Chemical Biological Combat Vehicle Protective Mask

<i>Size</i>	<i>NSN</i>
S	4240-01-413-4100
M	4240-01-413-4101
L	4240-01-413-4102

### M45 Air Crew/Land Warrior Chem-Bio Mask System

<i>Size</i>	<i>NSN</i>
XS	4240-01-414-4034
S	4240-01-414-4035
M	4240-01-414-4051
L	4240-01-414-4052

## M50 Field Protective Joint Service General Purpose Mask

<i>Size</i>	<i>NSN</i>
S	4240-01-512-4431
M	4240-01-512-4434
L	4240-01-512-4437

## M51 Combat Vehicle Joint Service General Purpose Mask

<i>Size</i>	<i>NSN</i>
S	4240-01-512-4431
M	4240-01-512-4434
L	4240-01-512-4437

## Universal Camouflage Joint Service Lightweight Integrated Suit Technology (JSLIST) Coat, Type II

<i>Size</i>	<i>NSN</i>
3XLL	8415-01-553-0073
2XLL	8415-01-553-0072
XLL	8415-01-553-0071
XLR	8415-01-553-0070
LL	8415-01-553-0069
LR	8415-01-553-0037
ML	8415-01-553-0035
MR	8415-01-553-0034
MS	8415-01-553-0033
SS	8415-01-552-9992

## Universal Camouflage JSLIST Trousers, Type II

<i>Size</i>	<i>NSN</i>
3XLL	8415-01-552-9983
2XLL	8415-01-552-9981
XLL	8415-01-552-9977
XLR	8415-01-552-9976
LL	8415-01-552-9974
LR	8415-01-552-9975
ML	8415-01-552-9971
MR	8415-01-552-9970
MS	8415-01-552-9968
SS	8415-01-552-9966

**Desert JSLIST Coat**

<i>Size</i>	<i>NSN</i>
XLL	8415-01-505-1616
XLR	8415-01-509-8314
2XLL	8415-01-505-1622
3XLL	8415-01-506-7710
LL	8415-01-444-6131
LR	8415-01-444-6138
ML	8415-01-444-6131
MR	8415-01-444-5926
MS	8415-01-444-5913
SS	8415-01-444-5905
SXS	8415-01-444-5902

**Desert JSLIST Trousers**

<i>Size</i>	<i>NSN</i>
XLL	8415-01-505-1567
XLR	8415-01-509-8269
2XLL	8415-01-505-1591
3XLL	8415-01-506-7713
LL	8415-01-444-5900
LR	8415-01-444-5898
ML	8415-01-444-5892
MR	8415-01-444-5893
MS	8415-01-444-5506
SS	8415-01-444-5504
SXS	8415-01-444-5417

**Woodland JSLIST Coat**

<i>Size</i>	<i>NSN</i>
XLL	8415-01-444-1241
XLR	8415-01-509-8296
2XLL	8415-01-505-1591
3XLL	8415-01-506-7546
LL	8415-01-444-1270
LR	8415-01-444-1265
ML	8415-01-444-1249
MR	8415-01-444-1238
MS	8415-01-444-1200
SS	8415-01-444-1169
SXS	8415-01-444-1163

## Woodland JSLIST Trousers

<i>Size</i>	<i>NSN</i>
XLL	8415-01-505-1274
XLR	8415-01-509-8265
2XLL	8415-01-505-1591
3XLL	8415-01-506-7698
LL	8415-01-444-2338
LR	8415-01-444-2325
ML	8415-01-444-2308
MR	8415-01-444-2310
MS	8415-01-444-1613
SS	8415-01-444-1439
SXS	8415-01-444-1435

## JSLIST Block 2 Glove Upgrade, Non-Flame Resistant

<i>Size</i>	<i>NSN</i>
Small	8415-21-921-2165
Med/Narrow	8415-21-921-2166
Medium	8415-21-921-2167
Lg/Narrow	8415-21-921-2169
Large	8415-21-921-2170
XL/Narrow	8415-21-921-2171

## Chemical/Biological/Radiological/Nuclear Lightweight Overboots Alternative Footwear Solution

<i>Size</i>	<i>NSN</i>
X-Sm	8430-01-553-6290
Small	8430-01-536-5413
Medium	8430-01-536-5415
Large	8430-01-536-5416
X-Large	8430-01-536-5419
XX-Large	8430-01-553-6283

## Appendix B

# PREPARATION OF PATIENT DECONTAMINATION SOLUTIONS

The two types of patient decontamination solutions, 0.5% and 5% hypochlorite, must be mixed in containers that can be closed after completion. The solutions will remain at the required strength far longer in closed than in open containers. The recommended mixing container is a 5-gallon water can. The most effective method for mixing is to agitate hypochlorite granules as they are poured into the water, and then to allow the solution to sit for 20 minutes to ensure the granules dissolve. The granules must be completely dissolved in the water. Follow the specific steps for each solution below.

### **0.5% Hypochlorite Solution**

Using 6-oz bottles of calcium hypochlorite granules contained in the Chemical Agent Patient Decontamination medical equipment set (MES), mix one bottle into 5 gallons of water. If a bulk package of calcium hypochlorite is used as an additional supply, retain one empty 6-oz bottle from the MES to measure the correct amount of dry granules and mix as described.

If neither source of calcium hypochlorite granules is available, household bleach is an alternative, usually packaged in 1-quart or 1-gallon bottles. Mix 2 quarts of bleach into 4.5 gallons of water, and store the solution in a closed container until ready to use.

### **5.0% Hypochlorite Solution**

Using 6-oz bottles of calcium hypochlorite granules found in the Chemical Agent Patient Decontamination MES, mix eight bottles into 5 gallons of water. If a bulk package of calcium hypochlorite is used as an additional supply, retain one empty 6-oz bottle from the MES to measure the correct amount of dry granules and mix as described. If neither is available, use household bleach straight from the bottle; do not mix in water.



## Appendix C

## MEDICAL EQUIPMENT SETS

## Chemical Agent Patient Treatment Set (30 Patients)

6545-01-5375022, MES CHEM AG TRMT-2006

6140015009672	Rechargeable battery	Ea	24
6505009269083	Atropine injection, 0.7 mL	Ea	150
6505011253248	Pralidoxime Chl injection, 2 mL	Ea	60
6505012740951	Diazepam injection, 2 mL, 10 mg (5 mL/mg)	Ea	100
6505014542525	Atropine sulfate opht	Tu	12
6505015053476	Diazepam inj, 2 mL, 10S, 10 mg (5 mL/mg)	Pg	10
6505015382871	Albuterol sulfate inh	Ea	5
6505015984306	Antidote treatment	Ea	30
6505016129939	Amyl nitrite inhala	Pg	1
6515007540412	Hypodermic syringe 100S	Pg	1
6515007542834	Hypodermic needle, 18-gauge 100S	Pg	2
6515011643038	Hypodermic syringe, 60 mL 100	Pg	1
6515011688108	Hypodermic syringe, 10 mL 100S	Pg	1
6515013386602	Hand-operated resuscitator	Ea	4
6515014350050	Suction App Surg Prog	Ea	2
6515014676692	Airway Nasophary Sz 28	Pg	6
6515014929182	Infusion set 200S	Pg	1
6515015213082	Pharyngeal airway, 2S	Pg	6
6515015213095	Pharyngeal airway	Ea	12
6515015328056	Hypothermia Managem	Ea	30
6515015382141	Chamber Medication	Ea	5
6515015456329	Leg case table kit	Ea	1
6515015590741	Holder Injector Syr	Ea	4
6530015196886	Bag Sterilization 10s	Pg	1
6545015338202	Medical instrument case	Ea	3
6545015771047	Chemical patient wrap kit	Ea	1
6630013780273	Blood collecting unit 200	Pg	1
6640015007721	Airflow indicator	Ea	1
7520003126124	Tube-type marker	Dz	1
8415011382496	Chemical glove inserts	Pr	25
8415011382503	Chemical protective gloves, large	Pr	7

Dz: dozen; Ea: each; Pg: package; Pr: pair; Tu: tube

## Chemical Agent Decontamination Set (60 Patients)

6564-01-5375019, CHEM AGT PA-2006

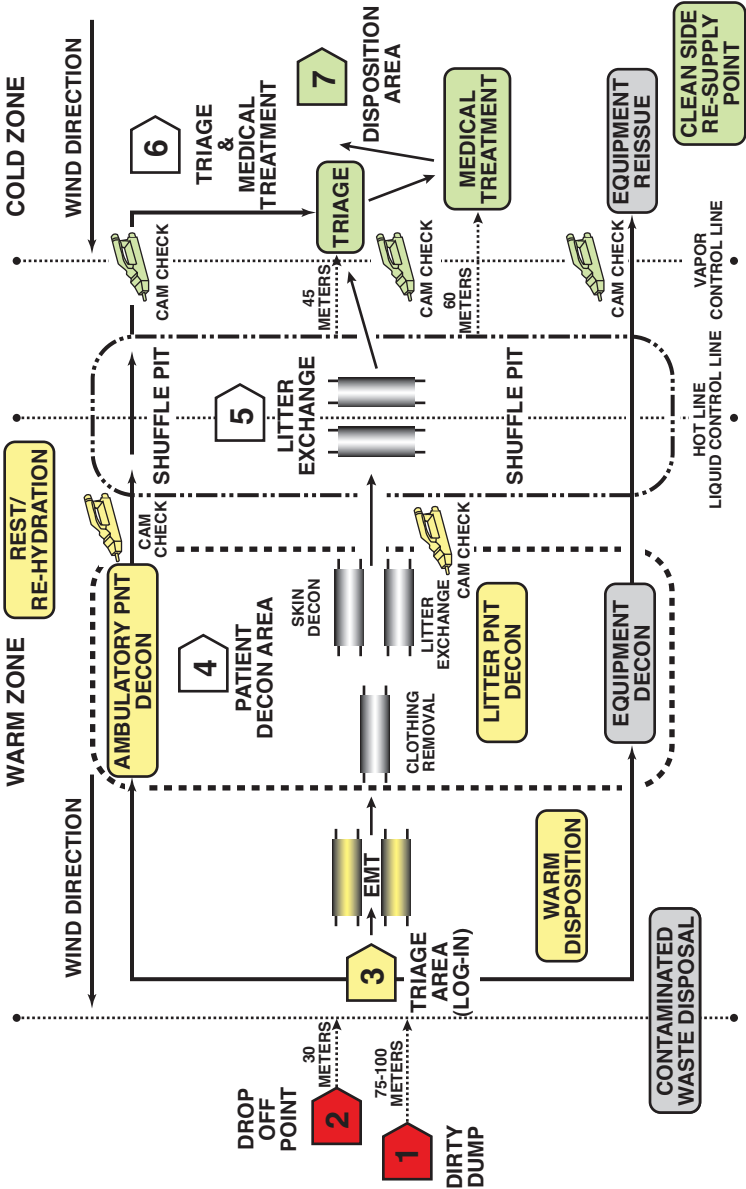
6505015075074	Reactive Skin Decontamination Lotion	Pg	2
6515011643038	Hypodermic syringe, 60 mL, 100	Pg	1
6515011688108	Hypodermic syringe, 10 mL, 100S	Pg	1
6515015456329	Leg case table kit	Ea	1
6515015989737	Scissors Bandage	Ea	25
6530013807309	Folding litter, 91.60"	Ea	4
6530015233314	Litter support	Pr	10
6545015338202	Medical instrument case	Ea	3
6545015456291	Medical instrument case	Ea	1
6665000508529	Chemical agent paper (M8), 25S	Bk	6
6665012265589	Chemical agent paper (M9)	Ro	1
6840013584336	Disinfectant Calcium Hypochlorite	Bg	25
7240002461097	Plastic utility pail, 3 gallon	Ea	10
7520003126124	Tube-type marker	Dz	1
7540014608995	Printed form	Bk	10
7920008841115	Cellulose sponge Rect	Ea	60
8105001913902	Plastic bag	Ro	2
8135006181783	Polyester plastic sheet	Ro	1
8415002817813	TAP apron, small	Ea	4
8415002817814	TAP apron, medium	Ea	8
8415002817815	TAP apron, large	Ea	4
8415010333517	Chemical protective glove set	Se	6
8415010333518	Chemical protective glove set	Se	10
8415010333519	Chemical protective glove set	Se	1
8415011382494	Chemical glove inserts, small	Pr	2
8415011382495	Glove inserts, medium	Pr	2
8415011382496	Chemical glove inserts	Pr	2

Bg: bag; Bk: book; Dz: dozen; Ea: each; Pg: package; Pr: pair; Ro: roll; Se: set; TAP: toxicological agent protective

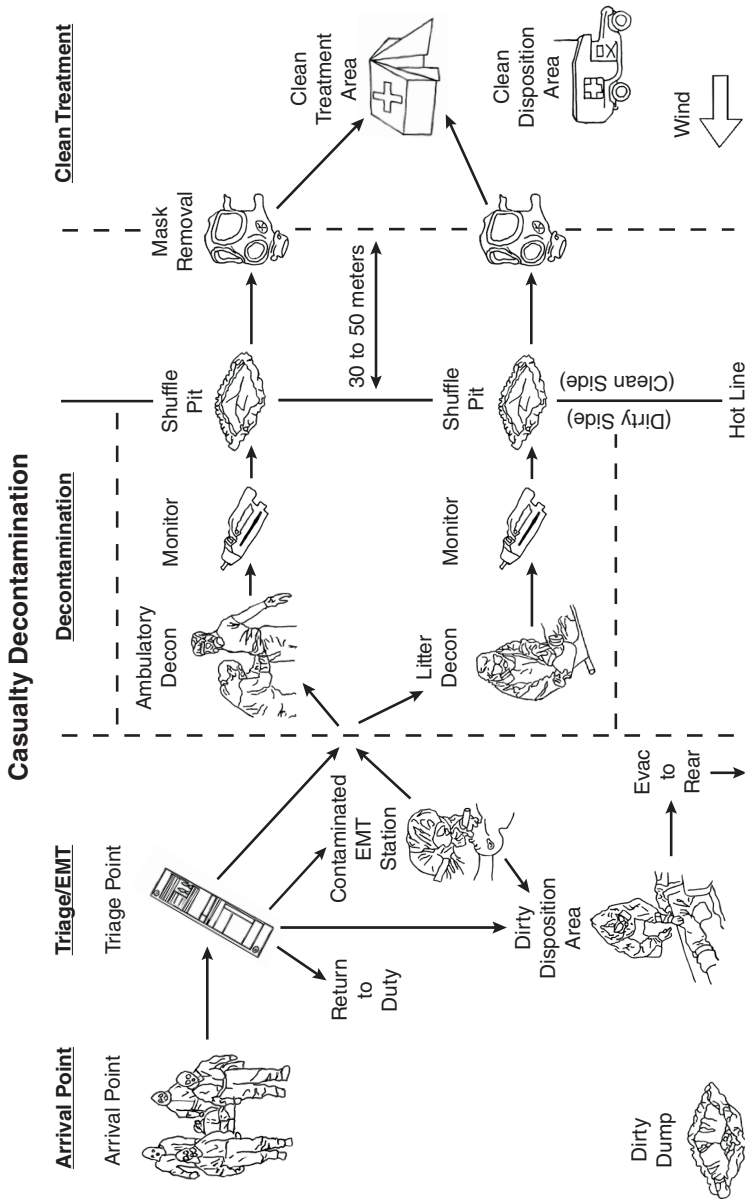


**Appendix D****PATIENT DECONTAMINATION  
STATION DIAGRAMS**

The following diagrams display two distinct patient decontamination layouts (see Chapter 10). Diagram 1 shows a detailed patient decontamination site layout, and diagram 2 shows the flow of casualty decontamination from the arrival point to the clean disposition area.



**Diagram 1.** Patient decontamination site layout. CAM: Chemical Agent Monitor; decon: decontamination; EMT: emergency medical treatment; PNT: patient



**Diagram 2.** Casualty decontamination procedure. EMT: emergency medical treatment



Appendix E

## GLOSSARY OF TERMS AND ACRONYMS

**ABCs.** airway, breathing, circulation

**AC.** hydrogen cyanide

**ACADA.** Automatic Chemical Agent Detector Alarm; this area monitoring detector sounds a warning when it senses the vapors of blister and nerve agents

**Acetylcholine.** a chemical released by certain nerves that stimulates a muscle, gland, or another nerve; one of a number of neurotransmitters in the body that carry “messages” from nerves to other organs.

**Acetylcholinesterase.** an enzyme (a protein produced in the cells) that stops the action of acetylcholine by destroying it. This action occurs as soon as acetylcholine has produced a muscle contraction or stimulated a gland or nerve. Nerve agents combine with acetylcholinesterase to prevent it from destroying acetylcholine; acetylcholine accumulates in excess and continues to stimulate the muscle, gland, or nerve.

**ACh.** acetylcholine

**AChE.** acetylcholinesterase

**Acid.** a substance with a pH less than 7

**Aerosol.** a gaseous suspension of fine solid or liquid particles

**AFS.** Alternative Footwear Solution

**Alkali.** a substance with a pH greater than 7

**Alveoli.** microscopic air sacs in the lungs where oxygen and carbon dioxide diffusion (movement) takes place through alveolar walls

**Anesthetic.** any agent that causes unconsciousness or insensitivity to pain

**Antibiotic.** a natural or synthetic substance that inhibits the growth of or destroys microorganisms; used extensively in the treatment of infectious diseases

**Anticholinergic.** an agent or chemical that blocks or impedes the action of acetylcholine, such as the antidote atropine

**Anticholinesterase.** a substance that blocks the action of cholinesterase (acetylcholinesterase), such as a nerve agent

**Apnea.** absence or cessation of breathing

**ARDS.** acute respiratory distress syndrome

**Asphyxiation.** unconsciousness or death caused by lack of oxygen

**Atelectasis.** collapse of the alveoli of the lungs secondary to mucous plugs, foreign bodies, or secretions, frequently associated with pneumonia; best treated by vigorous coughing and breathing exercises, as well as positive end-expiratory pressure

**ATNAA.** Antidote Treatment Nerve Agent Autoinjector

**BAL.** British antilewisite

**Blepharospasm.** a twitching or spasmodic contraction of muscles around the eye; if severe, can lead to difficulty opening the eyes

**Bradycardia.** a slow heart rate (< 60 beats per minute)

**Bronchi.** the finer, smaller divisions of the windpipe as it enters the lungs

**Bronchoconstriction or bronchospasm.** constriction of the bronchial tubes, making it difficult to move air in and out of the lungs

**Bronchopneumonia.** inflammation of the terminal bronchioles and alveoli, causing edema and consolidation of alveoli

**BZ.** an anticholinergic incapacitating agent

**C2A1 filter canister.** the standard filter used on the military mask; protects against historical chemical warfare agents

**CANA.** Convulsive Antidote, Nerve Agent

**Capillaries.** small blood vessels

**CARC.** chemical agent-resistant coating

**CBRN.** chemical, biological, radiological, or nuclear

**Central airway.** the airway segment that transports air from the nose and mouth to the lungs

**CFR.** case fatality rate

**CG.** a pulmonary agent

**Cilia.** hair-like cells in the respiratory and gastrointestinal tract that assist with mucous mobilization

**Ciliary.** pertaining to certain structures in the eye such as the ciliary muscles

**CK.** cyanogen chloride

**CN.** a riot-control agent

**CNS.** central nervous system

**Conjunctiva.** the delicate membrane that lines the eyelids and covers the exposed surface of the sclera

**Conjunctivitis.** inflammation of the conjunctiva

**Cornea.** the transparent anterior portion of the eye, comprising about one-sixth of its surface, through which light passes to transmit images to the retina; it is continuous at its periphery with the sclera and composed of five layers

**CR.** riot-control agent

**CS.** riot-control agent

**Ct.** concentration-time product

**CWC.** Chemical Warfare Convention

**CX.** a vesicating agent

**Cyanosis.** slightly bluish, grayish, slate-like, or dark purple discoloration of the skin due to oxygen in the blood

**Cyclitis.** inflammation of the ciliary body of the eye

**Dermatitis.** an inflammation or infection of the skin

**Dermis.** the deeper layer of the skin under the epidermis, containing the hair follicles, sweat glands, and sebaceous glands

**DHD.** downwind hazard distance

**DM.** a riot-control agent, also known as adamsite

**Dyspnea.** labored breathing resulting from an increased need for oxygen or inadequate air exchange in the lungs

**ECP.** entry control point

**Edema.** swelling of the tissues because of fluid

**ELISA.** enzyme-linked immunosorbent assay

**Emphysema.** process of trapping air in the alveoli, associated with loss of elasticity of the lung tissues and resulting in inability to exhale completely

**EMT.** emergency medical treatment

**Epidermis.** the outer layer of the skin

**Epithelium.** the inner layer of tissue in hollow organs

**Erythema.** red area of skin caused by heat or cold injury, trauma, or inflammation; may be localized or generalized

**Fasciculation.** localized contraction of muscle fibers, usually visible through the skin

**FDA.** Food and Drug Administration

**Fibrosis.** scar tissue; or replacement of normal tissue by fibrous tissue

**FiO<sub>2</sub>.** fraction of expired oxygen

**Flaccid paralysis.** loss of muscle tone and capability to function; nerve agents cause this condition

**FM.** titanium tetrachloride

**FMC.** field medical card

**FR.** flame-resistant

**FS.** sulfur trioxide-chlorosulfonic acid solution

**GA.** tabun

**GB.** sarin

**GD.** soman

**GF.** a nerve agent



**GI.** gastrointestinal

**Granulocytopenia.** decrease in white cells of the granulocyte series in the bloodstream

**H, HD.** mustard

**HC smoke.** military tactical smoke

**Hematopoietic.** pertaining to production and development of blood cells

**Hemoconcentration.** a relative increase in the number of red blood cells, usually resulting from a decrease in the volume of plasma

**HL.** mixture of mustard and lewisite

**HN3.** nitrogen mustard

**Hyperemia.** redness of the skin

**Hypertension.** high blood pressure

**Hypotension.** low blood pressure; if blood pressure is too low, shock and death may occur

**Hypovolemic shock.** insufficient blood volume to maintain adequate tissue oxygenation and aerobic metabolism

**Hypoxemia** or **hypoxia.** insufficient oxygen in the circulatory system to adequately supply tissue cells; may be caused by lack of oxygen, inadequate hemoglobin to carry oxygen, or interference with transfer of oxygen to the cells

**ICAD.** Individual Chemical Agent Detector

**ICAM.** Improved Chemical Agent Monitor

**ICt<sub>50</sub>.** median incapacitating dose via vapor

**ID<sub>50</sub>.** median incapacitating dose

**IEDK.** Individual Equipment Decontamination Kit

**IM.** intramuscular

**Intubation.** the process of enhancing respiration by providing an artificial airway

**IPE.** individual protective equipment

**IV.** intravenous

**JB2GU.** JSLIST Block 2 Glove Upgrade

**JCAD.** Joint Chemical Agent Detector

**JSGPM.** Joint Service General Purpose Mask

**JSLIST.** Joint Service Lightweight Integrated Suit Technology

**KI.** potassium iodide

**L.** lewisite

**Laryngospasm.** spasmodic closure of the larynx (voicebox at the top of the trachea/windpipe)

**Larynx.** voicebox and vocal cords

**LCt<sub>50</sub>.** median lethal concentration

**LD<sub>50</sub>.** median lethal dose

**Leukocytosis.** above normal increase of white blood cells

**Leukopenia.** less than normal number of white blood cells

**LSD.** lysergic acid diethylamide-25

**Lymphadenitis.** inflammation of lymph nodes, usually caused by a focus of infection distal to the node cells

**Malaise.** a feeling of illness or depression

**MCDM.** medical CBRN defense materiel

**MCT<sub>50</sub>.** concentration that causes miosis in half the exposed population

**MDMA.** 3,4-methylenedioxy-methamphetamine, popularly known as ecstasy

**MES.** medical equipment set

**Miosis.** small, "pinpoint" pupils

**MOPP.** mission-oriented protective posture

**MRE.** meal, ready to eat

**MTF.** medical treatment facility

**MTOE.** modified table of organization and equipment

**MWD.** military working dog

**Mydriasis.** large or dilated pupils

**Naloxone** or **naltrexone**. an opioid antagonist that rapidly reverses the effects of opioids

**Nasopharynx**. the area of the nose and upper airway

**NBC**. nuclear, biological, chemical

**NCO**. noncommissioned officer

**NCOIC**. noncommissioned officer-in-charge

**Necrosis**. death of tissue

**Necrotic**. pertaining to necrosis or end result of necrosis; dead

**nFR**. non-flame-resistant

**NOx**. oxides of nitrogen; toxic smoke that can cause pulmonary edema. Produced by exploding munitions, and industrial smoke, and in grain silos as a product of grain fermentation

**NSN**. national stock number

**OC**. oleoresin capsicum

**OIC**. officer-in-charge

**Oropharynx**. the mouth and upper airway

**PA**. physician assistant

**2-PAM Cl**. pralidoxime chloride

**PCB**. polychlorinated biphenyl

**PCP**. phencyclidine

**PDS**. patient decontamination station

**PFIB**. toxic smoke produced by Teflon (DuPont, Wilmington, DE) burning at over 700°F

**Pruritis**. itching

**Pulmonary edema**. fluid in the lungs, associated with an outpouring of fluids from the capillaries into the pulmonary spaces (air sacs or alveoli) producing severe shortness of breath. In later stages, produces expectoration of frothy, pink fluid and blue lips (cyanosis)

**RDIC**. Resuscitation Device, Individual Chemical

**Resin**. a semi-solid, sometimes sticky substance produced by plants

- Rhinitis.** inflammation of nasal mucosa
- Rhinorrhea.** thin watery discharge from the nose; runny nose
- RSCAAL.** Remote Sensing Chemical Agent Alarm
- RSDL.** Reactive Skin Decontamination Lotion
- SEB.** staphylococcal enterotoxin B
- SNAPP.** soman nerve agent pyridostigmine pretreatment
- STB.** super tropical bleach
- Tachycardia.** a rapid heart rate (> 100 beats per minute)
- TAP.** toxicological agent protective (eg, TAP apron)
- TCN.** tetracycline
- Thrombocytopenia.** an absolute decrease in circulating platelets in the blood
- TIC.** toxic industrial chemical; a chemical with a toxicity equal to or greater than ammonia that is produced more than 30 times a year by an industrial facility
- TIM.** toxic industrial material
- Trachea.** windpipe
- Urticant.** something that causes itching or stinging and a raised area on the skin (wheal)
- USAMRICD.** US Army Medical Research Institute of Chemical Defense
- Vapor.** fumes given off by a liquid
- Vascularization.** development of new blood vessels in a structure
- Vasoconstriction.** reduced interior size of a blood vessel with a decrease in blood flow
- VCL.** vapor control line
- VEE.** viral equine encephalitis
- Vertigo.** dizziness
- Vesicant.** agent that causes a vesicle (blister)
- Vesication.** blistering
- VHF.** viral hemorrhagic fever

**VX.** a nerve agent

**WP.** white phosphorus

**Zoonosis.** a disease of animals that may be transmitted to humans under natural conditions

**Zoonotic.** transmissible from animals to humans under natural conditions

