MABAS DIVISIONS 4 & 5 SRT

Hazardous Materials Decontamination Group Form

Date of Incident: _____ Time of Incident: _____

Location of Incident: _____

Decon. Supervisor: _____

Functions

Report to HazMat Director:	_____	4 - 6 Personnel Assigned:	_____
Don Vest:	_____	Decon Group Data Sheet Completed:	_____
Determine Decon Needed:	_____	Decon Established:	_____
Establish Decon Area:	_____	HazMat Director Notified:	_____
PPE Selected:	_____	Safety Officer Notified:	_____

Equipment

Water Supply:	_____	Hose and Adaptors:	_____
Diking Material:	_____	Plastic Bags:	_____
Template:	_____	Spray Tanks:	_____
Plastic Sheeting:	_____	Soap:	_____
Entry Markers:	_____	Brushes:	_____
Pools:	_____	Suit Doffing Seats:	_____
Shower Wands:	_____	Absorbent Pads:	_____

Diposable Clothing

Gowns:	_____	Shoes:	_____
Coveralls:	_____		

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Template for Gross Decon

20'

40'

EXIT

CRITICAL TREATMENT AREA (If Needed)

SCBA

SCBA REMOVAL (If Safe)

CLEAN AREA

GROSS DECON AREA (Diked Area)

CONTAMINATED CLOTHING

CLOTHING REMOVAL

CONTAMINATED EQUIPMENT

ENTER

Template for Dry - Isolation/Disposal Decon

20'

40'

EXIT

SCBA

SCBA REMOVAL

CLEAN AREA

CONTAMINATED CLOTHING

SUIT REMOVAL

CONTAMINATED EQUIPMENT

ENTER

Template for Dilution Decon

20'

40'

EXIT

PERSONAL SHOWER (Off Site - If Possible)

SCBA

SCBA REMOVAL

CLEAN AREA

POOL 2

CONTAMINATED CLOTHING

POOL 1

CONTAMINATED EQUIPMENT

ENTER

Decon Advantages and Disadvantages

Method	Advantages	Disadvantages
Dilution	1. Is a readily available solvent 2. Generates no toxic fumes 3. Minimal effect on protective clothing 4. Usually available	1. Has solubility limitations 2. Creates runoff 3. May not change HazMat chemically 4. Limited uses for protective clothing
Absorbtion	1. Inexpensive 2. Good for flat surface	1. Does not alter that HazMat
Chemical	1. Can decrease the level of risk to ERP	1. Takes time to set-up
Degradation	1. Can limit clean-up cost	1. Can be harmful to ERP
Isolation & Disposal	1. Reduces clean-up time 2. Reduces risk to ERP	1. Permits may be required

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Proper Decon Preparation

Nine Step Decon Procedure

Actions	Enter	Procedures
Personnel enter decon area and drop tools on contaminated side. Move to step 2.		
Remove as much contamination as possible. Dilution is conducted inside diked area. Personnel are in SCBA, move to step 3.		
Remove SCBA to contaminated side and move to step 4 or don new SCBA from clean side and re-enter work area. Move to step 4.		
Remove protective clothing and place on contaminated side. Move to step 5 or transport personnel to fixed decon facility.		
Remove all personal clothing and isolate items on contaminated side. Bag personal items, move to step 6.		
Personal showering using soap and sponges. Bag cleaning items for disposal. Move to step 7.		
Personal showering using soap and sponges. Bag cleaning items for disposal. Move to step 7.		
Personnel dry off. Bag towels. Put on clean clothing. Move to step 8.		
Personnel receive medical evaluation and treatment as necessary. Move to step 9.		
Identify personnel. Complete field records. Transport personnel to hospital or to a fixed decon facility for steps 5 - 8.		

Guidelines for Preparing Decontamination Solution

WHEN DEALING WITH UNKNOWN UNDER EMERGENCY CONDITIONS

Decontamination solutions are normally solutions of water and chemical compounds designed to react with and neutralize specific contaminants. The temperature of the liquid and contact time should be given consideration to be sure complete neutralization has taken place. In some cases, firefighters may be faced with an unknown hazardous material and will require decontamination after leaving the "Hot Zone". The following solutions should be used for unknowns since they are effective for a variety of contaminants.

DECON SOLUTION A: A solution containing 5% Sodium Carbonate (Na2Co3) and 5% Trisodium Phosphate (Na3Po4). Mix four pounds commercial grade Na**3**Po**4** with each 10 (ten) gallons of water. These chemicals are available in most hardware stores.

DECON SOLUTION B: A solution containing 10% Calcium Hypochlorite Ca(OCl)2. Mix eight pounds of Ca(OCl) 2 with each (ten) 10 gallons of water. Calcium Hypochlorite is commonly known as HTH and is available from swimming pool supply stores. Make sure you purchase HTH in plastic containers or transfer it from cardboard drums into clean plastic buckets marked "Oxidizer".

A general purpose rinse solution for both decon solutions is a 5% solution of Trisodium Phosphate. To prepare the rinse, mix four pounds of Na3Po4 with each 10 (ten) gallons of water.

DECON USING DECONTAMINATION CHEMICALS FOR KNOWN MATERIALS

Five general purpose decon solutions are available for ten basic hazard classes. These are:

DECON SOLUTION A: - A solution containing 5% Sodium Carbonate (Na2Co3) and 5% Trisodium Phosphate (Na3Po4).

DECON SOLUTION B: - A solution containing 10% Calcium Hypochlorite Ca(OCl)2.

DECON SOLUTION C: - A solution containing 5% Trisodium Phosphate (Na3Po4). This solution can also be used as a general purpose solution.

DECON SOLUTION D: - A dilute solution of vinegar (4-8% Acetic Acid). Mix two/three gallons of vinegar to ten (10) gallons of water. Stir with a wooden or plastic stirrer.

DECON SOLUTION E: - A concentrated solution of Tide or other detergent and water. Mix into a paste and scrub with a brush. Rinse with water.

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Decon Solutions

A	B	C	D	E
Inorganic Acids	Heavy Metals, Mercury, Lead, Cadmium, etc.	Solvents and Organic Compounds such as Trichloroethylene, Chloroform and Toluene	Inorganic Bases, Alkali, Ammonia and Caustic Waste	Radioactive Materials
Metal Processing Wastes	Pesticides, Chlorinated Phenols, Dioxins, PCBs	PCB, PBAA, PBD, PBI, PBPB		
Solvents and Organic Compounds such as Trichloroethylene, Chloroform and Toluene	Cyanides and other Non-Acidic Inorganics	Oily, Greasy Unspecified Wastes not Suspected to be Contaminated with Pesticides		
PCBs	Etiologic Materials			
Etiologic Materials	Unknown Substances			
Unknown Substances				

** Note: A general purpose rinse solution for both decon solutions A and B is solution C.

CAUTION: The decontamination solutions listed above are recommended for ten general groups of hazardous materials. ALWAYS contact expert assistance from manufacturers, poison control centers, medical specialists, etc. to determine the best solution to use.