



# **SPILL MANAGEMENT AND DECONTAMINATION PROTOCOL FOR SMALL SCALE PESTICIDE SPILLS IN WAREHOUSES, DEPOTS AND STORES**

**March 2023**





Spillage of pesticides in a depot, store or warehouse is a definite possibility and therefore every depot, store or warehouse manager should be acquainted with the basics of spill management to prevent such incidents from turning into disasters.

Professional and safe spill management has five components:

1. A well-equipped spill management kit.
2. Specialized personal protective clothing.
3. Calm and collected management of the site.
4. Decontaminating the site after cleaning up the spill.
5. Responsible and legal disposal of all contaminated materials.

**CONTACT THE GRIFFON POISON INFORMATION CENTRE 082-446-8946 (24HR SERVICE)  
FOR SPECIALIST ADVICE BEFORE DOING A SPILL CLEAN-UP**



# PROFESSIONAL SPILL KIT



A MUST HAVE FOR EVERY STORE



## Kit components

210 liter open-head plastic drum or wheelie bin

Plastic or stainless steel spade

Small plastic scoop and hand broom

Plastic broom with plastic bristles

Absorbent materials: Arabic gum, vermiculite or other commercial absorbent materials

1.5m X 1m 40 micron polyethylene plastic bags

300mm X 450mm 40 micron polyethylene plastic bags

Duct tape

Thick red permanent marker



## SPECIALIZED PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT REQUIRED FOR THE CLEAN-UP OF ANY PESTICIDE SPILLS

**CLEANING UP PESTICIDE SPILLS IS A HIGHLY HAZARDOUS TASK. NO PERSON MAY PARTAKE IN SUCH CLEAN-UP WITHOUT THE APPROPRIATE PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT**



1. Full overall like Tyvek or Tychem suits with long sleeves, long legs and head cover made from light weight, impenetrable polymer.
2. Full face respirator mask with one or two chemical filters (A,P type).
3. Long length neoprene rubber gloves and general surgical gloves.
4. Long length neoprene rubber boots with non-slip soles.
5. Chemical barrier cream for arms, hands, neck and face (if available).
6. Duct tape to tape trousers and sleeves closed over boots and gloves.



# SPECIALIZED PERSONAL PROTECTIVE CLOTHING AND EQUIPMENT



# STANDARD PROTOCOL FOR CLEAN-UP OF SPILLS

***Keep all people away from the contaminated area during the clean-up operation***

**Stay calm and work methodically while wearing a full set of protective clothing**



1. Sprinkle absorbent material such as Arabic gum, vermiculite or commercially available absorbents liberally over the spilled pesticide.
2. ***DO NOT USE WOOD SHAVINGS FOR ACIDS SUCH AS PHOSPHORIC OR PHOSPHINIC ACIDS because it causes an exothermic reaction and may start burning.***
3. While allowing the pesticide to be absorbed, secure and seal any leaking or compromised containers. It is good practice to transfer compromised containers into large polyethylene plastic bags to prevent further spillage. Seal the bags with duct tape and mark **HAZARDOUS WASTE** with the red permanent marker.
4. Once the pesticide is absorbed, sweep up the absorbent material and transfer to a large polyethylene plastic bag.
5. Seal bag with duct tape, mark **HAZARDOUS WASTE** with the red permanent marker and transfer to the open-head drum or wheelie bin.
6. Prepare to decontaminate the contaminated area.

# DECONTAMINATION PROTOCOL TO BE FOLLOWED AFTER CLEAN-UP OF SPILLS

***Do not allow anybody near the contaminated area during  
decontamination***

**Stay calm and work methodically while wearing a full set of protective clothing because the chemicals used are highly hazardous!!**



1. Slowly scatter 500 grams potassium hydroxide granules into 5 liters ice cold water while agitating with a plastic ladle; it generates a lot of heat, do it therefore **SLOWLY!!**
2. Irrigate the contaminated surface with the potassium hydroxide solution and leave standing for 30 minutes to 1 hour (this will also remove odours of organophosphates).
3. Sprinkle vermiculite or Arabic gum or commercially available absorbents over the treated area and allow the absorbent material to soak up the potassium hydroxide solution.
4. Once the solution is absorbed, sweep the absorbent material up and transfer it to a large polyethylene plastic bag. Place the filled bag into another plastic bag.
5. Seal the bag with duct tape, mark **HAZARDOUS WASTE** with the red permanent marker and transfer it to the open-head drum or wheelie bin with the other hazardous waste.
6. Neutralize the site by irrigating with ample volumes of concentrated (glacial) acetic acid and then flushing with clean water.

# DISPOSAL OF SPILLED MATERIAL, ABSORBENT MATERIAL AND CONTAMINATED PPE

1. Clean all items in the spill kit that were used and replenish stocks if needed.
2. Clean all protective clothing that was used and check the respirator's filters for functionality and expiry date; replace the filters if required and dispose of used filters with the hazardous waste. Also dispose of any contaminated PPE with the hazardous waste.
3. Contact one of the CropLife South Africa recommended hazardous waste management companies to dispose of the hazardous waste according to waste regulations; view the list on <https://croplife.co.za/ObsoleteStocks>.
4. Conduct a situation analysis to determine why the spill occurred and put measures in place to prevent a repetition of the incident.

**DO NOT STORE HAZARDOUS WASTE ON THE PREMISES! DISPOSE OF IT IMMEDIATELY THROUGH A LICENSED HAZARDOUS WASTE MANAGEMENT SERVICE PROVIDER**

