



SOUTH AFRICAN PEST CONTROL ASSOCIATION  
SUID-AFRIKAANSE PLAAGBEHEERVERENIGING

**SAPCA** (NPC)

**E-news**

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## **Standard Operating Procedures (SOP) for the Disinfection of Biological hazards**

### **STANDARD OPERATING PROCEDURES**

- Reference
- 1: [PCITA](#) "Fumigating Commodities using Toxic Gases"
  - 2: PCITA "Fumigation Skills Course"
  - 3: World Health Organization protocols
  - 4: Center for Disease Control protocols ([CDC](#))

- Appendix
- A: Safety checklist
  - B: Donning checklist
  - C: Doffing checklist
  - D: Certificate
  - E: Decontamination Site Setup

## INTRODUCTION

1. Disinfection and decontamination of biological hazards includes aspects such as the removal of viruses, parasites, bacteria and fungi from different premises.

## WHAT IS DISINFECTION AND DECONTAMINATION

2. Disinfection is defined as the process of cleaning something, especially with a chemical in order to destroy bacteria.
3. Decontamination is the neutralization or removal of dangerous substances or germs from an area, object or person.

## WHAT IS THE PURPOSE?

4. This SOP serves as a model to standardise the procedures and responsibilities for the disinfection and decontamination of premises and areas.
5. All personnel should be trained in the total process of disinfection and decontamination.
6. **All premises and areas to be treated should be considered infected at all times.**

## DISINFECTION AND DECONTAMINATION SITE SETUP

7. Select an appropriate site to park the vehicles and where the decontamination team will self-decontaminate once the work is done.
8. Ensure a secure perimeter for the safety of the public and decontamination team.
9. Include considerations for waste management, security plan, public perception and media visibility when selecting a decontamination site.
10. Depending on the location, ensure that the selection of the site is beneficial for climate control.
11. You can mark “hot”, and “cold” zones of contamination in your site that require PPE to enter. (“hot” = suspected contamination, “cold” = area of no contamination)
12. Make use of known pictograms and tape to demarcate the area.

## BEFORE DISINFECTION AND DECONTAMINATION

13. A proper risk assessment must be conducted if possible prior to entering any premises. If it is not possible prior to the treatment all possible risks should be discussed with the building manager including building layout.
  14. To limit the possible exposure, the number of people involved (Disinfection team) must be kept as small as possible.
  15. Put on all PPE (coverall, gloves, mask/respirator, goggles and shoe protection) as required for the specific threat.
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16. Remove all equipment (ULV, extension cords, product, spray bottles, cloths and relevant documentation) from the vehicles. Disinfect the vehicles.
17. PPE should be worn based on the threat level (Ebola, SARS, COVID etc) and based on the disinfectant used.



### DURING DISINFECTION AND DECONTAMINATION

18. Enter the premises and start at the furthest point.
19. Wipe all high touch points/areas using a cloth with sanitizer or other disinfectant. (high touch points are amongst others, door handles, door frames, table tops, keyboards, mouse, mouse pads, calculators, telephones, cabinet handles, light switches, air conditioner and other remotes, keys)
20. In the bath rooms, wipe all high touch points/areas with a cloth and sanitizer or other disinfectant. (high touch points are toilet seat, flush handle, taps, toilet roll holder, door handles, soap- paper- and sanitizer dispensers).
21. In the kitchens wipe all the high touch points/areas with a cloth and sanitizer or disinfectant. (high touch points are door handles, frames, cabinet handles, soap-, paper-, sanitizer-dispensers, utensils, handle bars of appliances, kettles and bins).
22. Knock down treatment must be done in all areas using a ULV machine focusing on high application, on top of desks, as well as underneath it on top of cabinets, cabinet doors. A total "volume" treatment with ULV is required to ensure that every surface is covered with the disinfectant.
23. To disinfect vehicles, manually wipe all inside door handles, steering wheel, gear lever, outside door handles, and seat belt. A knockdown treatment using ULV must then be done on the inside of the vehicle. **NB! Be careful not to damage vehicle paint when using a sterilizer or disinfectant. (Eg; Outside door handles)**







## **AFTER DISINFECTION AND DECONTAMINATION**

24. All team members must move to the "hot" zone and dip their shoes in a disinfectant solvent.
25. Electrical cords (not damaged) can also be dipped in the disinfectant solvent.
26. Whilst still dressed in PPE, apply ULV disinfectant over all team members and ULV machines.
27. All company vehicles must then be disinfected as per description of vehicle disinfection above.
28. Dispose of all waste according to disinfection protocols as well as company regulations. (remove coveralls and place in bags for cleaning or disposal) Sanitize bags and seal it.
29. Clear up the site, sanitizing all equipment and bag it for later use.
30. Remove masks, shoe covers, gloves and place in bags for disposal.
31. All team members must again sanitize their hands before embarking the vehicles.
32. Additional cleaning methods can be used to provide additional assurance to personnel and the public. (Chlorine dioxide gas or hydrogen peroxide)

## **MATERIALS AND EQUIPMENT REQUIRED TO DISINFECT OR DECONTAMINATE SITES**

33. Impermeable coveralls.
  34. Impermeable boots and/or boot covers.
  35. N95 masks or air purifying respirators. (Full face or half mask with eye protection)
  36. Eye protection.
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37. Only SABS registered Virocide, Bacteriacide or Fungicide disinfectants must be used.
38. Bio-bags.
39. Garbage bags.
40. Nitrile gloves. (different sizes)
41. Hand sanitizer. (70% alcohol)
42. Caution tape. (preferably yellow stripes)
43. Duct tape.
44. Buckets.
45. Healthcare wipes.
46. Scissors.
47. ULV machines.
48. Electrical cords.
49. Cloth.
50. Documentation (file) including; bio-safety check-off sheets, dressing (donning) check-off sheets, removing (doffing) check-off sheet, service reports and product MSDS.

## **GENERAL**

51. Disinfection and Decontamination requires proper planning to ensure good results. **BE SAFE!**

### **ACCEPTANCE OF DESIGNATION**

I, \_\_\_\_\_ do hereby acknowledge that I read through this SOP and I understand the requirements related to Disinfection and Decontamination of premises and/or certain areas.

Date: \_\_\_\_\_

Signature: \_\_\_\_\_

Designation: \_\_\_\_\_

## SAFETY CHECKLIST

Client:					
Address:					
Contact number:					
Email:					
Date:					
Time:					
Team supervisor:					
Team member 1:					
Team member 2:					
Team member 3:					
Team member 4:					
<b>PPE</b>	<b>Supervisor</b>	<b>Member 1</b>	<b>Member 2</b>	<b>Member 3</b>	<b>Member 4</b>
Boots					
Boot covers					
Coverall					
Gloves					
Mask					
Respirator					
Eye protection					
Head cover					
Reflective jacket					
<b>Premises</b>	<b>High touch points</b>	<b>Volume knock down treatment</b>			
Reception					
Offices					
Boardroom					
Kitchens					
Bathrooms					
Staff area					
Smoke area					
Lifts					
Stairs					
Computer rooms					
Stockrooms					
Archive					
Other					
Other					

Supervisor: \_\_\_\_\_

Date: \_\_\_\_\_

**DONNING CHECKLIST (DRESSING)**

Step	Task	Criteria	Completed
1	Gather PPE in proper size	<ul style="list-style-type: none"> <li>• Coverall</li> <li>• Mask/respirator</li> <li>• Gloves</li> <li>• Eye protection</li> </ul>	
2	Prepare to don PPE	<ul style="list-style-type: none"> <li>• Supervisor present</li> <li>• In safe environment</li> <li>• Remove watches and jewellery</li> <li>• Secure eye glasses</li> <li>• Hydrate and attend to personal hygiene</li> </ul>	
3	Inspect PPE	<ul style="list-style-type: none"> <li>• Inspect PPE for serviceability and proper size</li> </ul>	
4	Perform hand hygiene	<ul style="list-style-type: none"> <li>• Use alcohol based hand sanitizer</li> </ul>	
5	Don nitrile gloves	<ul style="list-style-type: none"> <li>• Put gloves on</li> </ul>	
6	Don coverall	<ul style="list-style-type: none"> <li>• Fully cover torso from neck to knees; arms to end of wrists</li> <li>• Fastens at zips</li> <li>• Ensure no trip hazards</li> </ul>	
7	Don N95 / respirator	<ul style="list-style-type: none"> <li>• Ensure proper fitting and check for sealing</li> </ul>	
8	Don face shield or eye protection	<ul style="list-style-type: none"> <li>• Ensure proper fit and sealing</li> </ul>	
9	Inspection	<ul style="list-style-type: none"> <li>• Extends arms and ensure PPE integrity</li> <li>• Bends at waist</li> <li>• Squats and return to standing position</li> <li>• Slowly turns in a circle for final inspection</li> <li>• Mark coverall with wearer's name</li> </ul>	



**DOFFING CHECKLIST (UNDRESSING)**

Step	Task	Criteria	Completed
1	Supervisor	<ul style="list-style-type: none"> <li>Report to Supervisor</li> <li>Determine time required for disinfection</li> </ul>	
2	Inspect PPE	<ul style="list-style-type: none"> <li>Inspect that PPE is in good order</li> </ul>	
3	Perform hand hygiene	<ul style="list-style-type: none"> <li>Using a registered disinfectant</li> </ul>	
4	Doff face shield/eye protection	<ul style="list-style-type: none"> <li>Face shield is considered contaminated</li> <li>Remove and place in bag for disinfection</li> </ul>	
5	Doff coverall	<ul style="list-style-type: none"> <li>Front and sleeves are potentially contaminated</li> <li>Remove by pulling the coverall away from the neck and shoulders, touching the inside.</li> <li>Turn the coverall inside out, fold and roll into a bundle, placing in waste bag</li> </ul>	
6	Perform hand hygiene	<ul style="list-style-type: none"> <li>Sanitize hands using an alcohol based hand sanitizer.</li> </ul>	
7	Don a new pair of gloves	<ul style="list-style-type: none"> <li>New pair of gloves</li> </ul>	
8	Move to cold zone	<ul style="list-style-type: none"> <li>Safe area</li> </ul>	
9	Remove N95 / respirator	<ul style="list-style-type: none"> <li>Remove from the back to front and discard in waste container/bag</li> </ul>	
10	Doff final gloves	<ul style="list-style-type: none"> <li>Remove and discard</li> </ul>	
11	Hand hygiene	<ul style="list-style-type: none"> <li>Wash hands with alcohol hand sanitizer</li> </ul>	
12	Inspect	<ul style="list-style-type: none"> <li>Inspect for any contamination of clothing worn under PPE. Shower as soon as possible.</li> </ul>	

## COVID – 19: CERTIFICATE OF BUILDING OCCUPATION

This is to certify that the (name of Building): \_\_\_\_\_

Was decontaminated/fumigated on (date): \_\_\_\_\_

By (name of the official): \_\_\_\_\_

Capacity: \_\_\_\_\_

P Registration number: **P** \_\_\_\_\_

Using the following chemicals/disinfectants:

1) \_\_\_\_\_ ( \_\_\_\_\_ )

I therefore declare that the area that was decontaminated, sprayed or fumigated will not cause any health hazard to human health and well-being.

The building is now declared safe for occupation.

Name & Surname of Supervisor: \_\_\_\_\_

Capacity: **P Registration No** \_\_\_\_\_

Signature: \_\_\_\_\_

Date: \_\_\_\_\_ **2020**

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DECONTAMINATION SITE SETUP

