

Standard Operating Procedure: Container Fumigation Disinfestation Specialists

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1. Objective: Fumigation of container as per NSPM 12 and NSPM 22

2. Method of Fumigation :

2.1 Preventive Measures: Recommendation of measures to prevent cross infestation of insects on fumigated materials.

2.2 Treatment Procedures: Methyl Bromide Fumigation.

2.2.1 Placement of monitoring lines, top back, middle centre and front base inside the container and fumigant release pipe.

2.2.2 Placement of fumigation covers of 200 GSM and sealing with sand snakes.

2.2.4 Quarantine the fumigation enclosure and place danger sticker on enclosure.

2.2.5 Measurement of ambient temperature and calculation of enclosure volume.

2.2.6 Release of fumigant through vaporizer to enclosure and check leakages.

2.2.7 Monitoring of fumigant concentration after ½ hour and check equilibrium.

2.2.8 Monitoring of fumigant concentration after 12 and 24 hours and check end concentration and fumigant top up, if necessary.

2.2.9 Aerate the enclosure after 24 hours and measure TLV.

2.3 Treatment Procedures: Aluminium Phosphide Fumigation.

2.2.1 Measurement of ambient temperature and relative humidity.

2.2.2 Placement of monitoring lines, top back, middle centre and front base.

2.2.3 Placement of fumigant pouches at the front side of container.

2.2.4 Close container door properly, seal door and ventilators with plastic tapes.

2.2.5 Quarantine the container for 7 days exposure period.

2.2.6 Monitoring of fumigant concentration after ½ hour and check equilibrium.

2.2.7 Monitoring of fumigant concentration after 12 and 24 hours and check end point concentration.

2.2.8 Aerate the enclosure after 7 days hours and measure TLV and remove used fumigant pouches.

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Issue No : 002

Approved By : Ramjiwan Kutar

Issue Date : 15/03/2020

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3. Pesticides and other materials to be used:		
Sl. No.	Pesticide Active Ingredient	Dilution Ratio
1	Methyl Bromide	32 & 80 gm/cubic meter
2	Aluminium Phosphide	9,12 & 8 gm / MT
4. Equipment's to be used		
4.1 Fumigation Covers, Sand Snakes, MBr Applicator, Monitoring & Fumigant release pipes		
4.2 Calculator, Fumigant Monitor, Leak Detector & Thermometer		
5. Personnel Protection Equipment		
5.1 Hand Gloves		
5.2 Face Mask with canister		
5.3 Protective Clothing's.		
6. Do's & Don'ts		
6.1 Do's		
6.1.1 Proper assessment of floor and walls of container.		
6.1.2 Proper calculation dosage of fumigant as per requirement.		
6.1.3 Ensure proper sealing of container enclosure and maintain exposure period.		
6.1.4 Proper quarantine of fumigation area to avoid any exposure by workers.		
6. Do's & Don'ts		
6.2 Don'ts		
6.2.1 Don't eat, smoke and drink during treatment.		
6.2.2 Don't fumigate containers with holes and damaged rubber seals at door.		
6.2.3 Don't reduce exposure period and keep unfumigated materials nearby.		
6.2.4 Don't fumigate copper and brass items with ALP and list of restricted items mentioned in NSPM 22 with MBr		
7. Documentation		
7.1 Fumigation records should be completely filled with remarks and signatures from customer.		
7.2 Recommendation reports should be filled.		

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Approved By : Ramjiwan Kutar	Issue Date : 15/03/2020