

Standard Operating Procedure: Stack Fumigation Disinfestation Specialists

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

2. Method of Fumigation :

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

2.2 Treatment Procedures: Methyl Bromide Fumigation.

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

2.2.2 Placement of fumigant release pipe linked with vaporizer.

2.2.3 Placement of fumigation cover, 200 GSM and sealing with sand snakes.

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

2.2.5 Measurement of ambient temperature and calculation of stack 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 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 inside pouches @ 2/3rd at top and 1/3rd at bottom.

2.2.4 Placement of fumigation cover of 200 GSM and sealing with sand snakes.

2.2.5 Quarantine the fumigation enclosure and place danger sticker on stack.

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 concentration.

2.2.8 Aerate the enclosure after 7 days hours and measure TLV.

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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	9,12.18 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 site and floor of fumigation.

6.1.2 Proper calculation of volume of stack.

6.1.3 Ensure proper sealing and correct dosage of fumigant and 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 wpm with paints and lacquer.

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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