

ACTIVITIES: Mixing chemicals/fertilisers/substrate

Purpose

To ensure mixing or handling of chemicals, fertilisers or substrate is carried out in a safe manner to minimise the risk of injury to the worker.



HIGH RISK!
Ensure all risk control measures are implemented

Hazard Analysis

HAZARDS

- Chemical spill, skin absorption, eye contact, inhalation

- Slips/personal injury

- Blocked jets

- Spray drift

- Crushing

RISK CONTROL MEASURES

CORRECT PPE

Wear hi visibility clothing, sturdy work boots, gloves, eye protection, dust mask as per MSDS.

MECHANICAL/PLANT

Use cabin tractor with appropriate filters.

ADMINISTRATIVE

Follow standard operating procedure.

Ensure spill kit is available to clean up any spills.

Ensure eye wash station is available.

CORRECT PPE

Wear appropriate footwear.

Use steps on tractor and sprayer.

ADMINISTRATIVE

Follow standard operating procedure.

Ensure spill kit is available to clean up any spills.

CORRECT PPE

Wear appropriate PPE (goggles, gloves).

MECHANICAL/PLANT

Disengage PTO.

Fold booms down for easy access.

ADMINISTRATIVE

Follow standard operating procedure.

Ensure spill kit is available to clean up any spills.

CORRECT PPE

Wear appropriate PPE (goggles, gloves).

MECHANICAL/PLANT

Use required cabin filters.

Spray in optimum weather condition (slight breeze but not too windy).

ADMINISTRATIVE

Follow standard operating procedure.

CORRECT PPE

Wear appropriate PPE (gloves, footwear).

MECHANICAL/PLANT

Ensure plant is turned off and apply hand brake when stationary.

ADMINISTRATIVE

Follow standard operating procedure.

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Wear this PPE (or as per MSDS) before performing mixing of chemicals/fertilisers/substrate



Hi-vis clothing

Work boots

Gloves

Goggles

Dust mask (substrate)

Certificates, licences or training required

- Induction by Farm Manager
- Farm Chemical Users Certificate (not required for substrate)

Procedure

Pre-operation

- Carry out pre-start check on plant before use. See **SOP – ACTIVITIES Pre-start checks**
- Always reverse tractor up to mixing cart.
- Line tractor drawbar up with mixing cart.
- Turn off tractor and apply handbrake.
- Place pin in tow hitch.
- Connect PTO shaft; ensure PTO guard is fitted.
- Wind up jockey wheel and disconnect.

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Operation

- Drive tractor and mixing cart around to filler point.
- Ensure hand brake is applied.
- Half fill the mixing cart with water.
- Engage PTO to agitate water.
- Once chemicals are in mixing cart, top up cart with water to required level.
- Remove filler hose from spray tank.
- Drive to appropriate crop spray for filling.
- Pull alongside spray unit. Apply handbrake.
- Connect filling hose to spray tank.
- Turn on appropriate taps for filling.
- Once full, turn off taps, and disconnect hose.
- Disengage PTO and handbrake return to filler point.
- At the end of the day, run water through cart.
- Discharge waste in designated area away from waterways and produce.

Spill prevention

Read the label first and be prepared!

To help prevent spills or reduce the severity of a spill should it occur, keep in mind the following:

- Mix products on a level surface and hold the container steady.
- Do not mix or store pesticides near drains or stormwater outlets.
- Carry absorbent materials and have them ready in case of an accident.
- Secure containers in your vehicle.
- Keep people, animals, hoses and vehicles away from the containers and treatment area.
- Keep lids on containers when not in use.
- Store containers in an organised and orderly manner.
- Use funnels and accurate measuring jugs with a pouring lip.
- Have an emergency response plan.
- Use the lowest toxicity pesticide possible.

Managing spills

Remember, if in doubt – GET OUT.

Caution

- Assess the potential dangers. The first priority is to protect your health and safety, and the health and safety of other people.
- If in doubt or the spill is large, contact the Metropolitan Fire Brigade (MFB) or Country Fire Authority (CFA) on 000, and the state Environment Protection Authority (EPA).
- Always wear the correct personal protective equipment (PPE).
- Follow emergency directions on the label and MSDS.
- Ensure the area is ventilated and stay upwind of the spill.
- Barricade and sign the area to prevent unauthorised access.

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Control

- Control the source of the spill.
- If the spill has occurred due to a leaking container, decant the remaining liquid into another container, or locate the source of the leak and position the container so that it is not sitting on the leaking side.

Contain

- Contain the spill.
- Use sand or absorbent material to barricade the spill and prevent spreading.
- Block any drains in the vicinity.

Clean up

- Prompt clean-up action will reduce the likelihood of the hazardous material soaking into the ground or spreading.
- When using absorbent materials, such as hydrated lime or kitty litter, leave the material on the site of the spill for at least one hour.
- Make sure that the spill location is supervised at all times during clean up.
- If the MSDS recommends the use of bleach to neutralise the material, use only enough to cover the area that was covered by the spill. Absorb the bleach with absorbent materials and dispose of appropriately.
- Do not wash hazardous materials away with water.
- Send any contaminated materials to a facility licensed by the EPA to accept prescribed industrial waste.
- After you clean up the spill, wash your hands and any exposed areas of your skin with soap and water. Shower if necessary.
- If you get any diluted pesticide on your clothing, you can wash it separately from other family laundry with a heavy-duty detergent. If you spill concentrated product on your clothing, you may need to dispose of it along with clean-up materials.
- If you or someone else is directly exposed to a pesticide, wash the pesticide off the skin with plenty of water for at least 15 minutes. Get medical attention as soon as possible, if required.

Working with substrates (e.g., pine bark or coir)

Inhalation of dust and/or liquid mists may irritate, inflame or sensitise the nose, throat and lungs resulting in illnesses ranging from hayfever or asthma, to pneumonia (eg Legionnaire's disease) or pneumonia-like illnesses.

Direct contact with this material or its dust and/or liquid mists may cause skin irritation, and skin or eye infection or irritation. People particularly at risk are those suffering from asthma or allergies, and those whose immune defence systems are compromised.

Ensure the appropriate PPE is worn and MSDS is available before working with substrates.

Wash your hands and any exposed areas of your skin with soap and water after handling.

**Nurse-on-call
1300 60 60 24**

Call NURSE-ON-CALL on 1300 60 60 24 for immediate health advice from a registered nurse — available 24/7.