SOP

Mixing Agrichemicals

Preparing and loading a spray mix safely

Key point: the product label and SDS come first. They set the rate, the PPE and whether products can be mixed together. Where this SOP and the label differ, follow the label.

Who can mix?

Is any product class 6.1A or 6.1B, or does it need a CSL?

YES

Certified handler required

The handler mixes it, or stays present, gives guidance and is available to help throughout

NO

Trained worker

Has the information, instruction and training for the product, and follows the label and SDS

⚠ **Not sure of the class? Check the SDS or the WorkSafe Hazardous Substances Calculator.**

What to wear

- **Chemical-resistant gloves**
- **Goggles or full-face mask**
- **Overalls covering skin**
- **Respirator with correct filter**
- **Chemical-resistant footwear**

The label and SDS say what each product needs. Gear must suit the chemical, fit properly, be clean and fully cover your skin.

Where to mix (good practice)

BEST

Level, well ventilated and contained
A firm area where spills can be caught and cleaned up, with clean water and a spill kit close by.

TAKE CARE

Filling from a water supply
Prevent backflow: keep the hose out of the mix, or fit a backflow device. Stay with the tank so it cannot overfill.

AVOID

Near water, drains, people or animals
Do not mix close to waterways, wells, drains, food, livestock, or anywhere people pass through.

Next page: mixing steps, tank order, records, and what to do if something goes wrong

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Step by step

1 Read and plan
Check it is the right product. Read the label and SDS for rate, PPE and tank-mix advice.

2 Work out the amount
Calculate from the area and the calibrated rate. Mix only what you need for the job.

3 Gear up
Put on the PPE before opening any container. Check the sprayer is clean and not leaking.

4 Measure and add
Measure accurately and pour carefully. Add products in the order below, with agitation on.

5 Rinse containers
Triple rinse empties into the tank, then keep them for recycling or follow the label.

6 Clean up and wash
Close and store product securely. Clean gear. Wash hands, arms and face before eating, drinking or smoking.

Typical tank order

1 Water
Fill to at least 70% with clean water. Start agitation.

2 Conditioners
Water conditioners first.

3 Granules
Water-dispersible (WG) and soluble (SG) granules.

4 Flowables
Flowables (FL) and suspension concentrates (SC).

5 Powders
Wettable powders (WP). Fully disperse before going on.

6 Top up
Top up to nearly full. Add soluble liquids (SL), then adjuvants.

7 Concentrates
Emulsifiable concentrates (EC), then OD, EW and SE products.

8 Oils
Any oils go last. Fill and keep agitating.

Always check every label for tank-mix instructions first. If unsure, get competent advice or do a jar test before mixing.

Record it

- Spray diary: product, rate and quantity
- Notifications given
- Weather at application
- Tracking records for tracked substances

If something goes wrong

111
Fire, injury or uncontained spill

0800 764 766
National Poisons Centre, 24 hours

0800 030 040
WorkSafe, if a notifiable event

1. Stop, move people away and keep others out of the area.
2. On skin or in eyes: follow the first aid steps on the label and SDS straight away.
3. Spill: contain it with the spill kit and stop it reaching drains or waterways. Call 111 if you cannot contain it.
4. For poisoning advice, call the National Poisons Centre. Have the label or SDS with you.
5. Tell your employer. Notify WorkSafe if it is a notifiable event.

Summary only. Check the product label, SDS and your certificate conditions: WorkSafe guidance on agrichemical PPE and certified handlers; NZS 8409:2021 Management of agrichemicals; ADAMA New Zealand mixing order; National Poisons Centre.