Chemical Handling SOP



This Safe operating practice information form cannot cover every possible scenario and should be used in conjunction with the manufacturer's instructions

Chemical shed

Chemical shed

Safety Data Sheet (SDS)

HAZARDS

Toxic substance - Health effects: Chemicals and fuels can cause serious, long-term health damage if you breathe them in, get them on your skin or in cuts, if they get into your mouth or if you accidentally inject yourself.

Explosive nature (Hazard class 1): including fireworks Flammability (Hazard class 2,3 and 4): for example, petrol, turps, LPG, diesel

HAZARDS

Toxic substance – Environmental effects (Hazard class 9):

Many farm chemicals and fuels are harmful to the environment (ecotoxic). They can pollute waterways and kill fish, animals, insects (like bees), and vegetation (like native bush). They can also cause long-term contamination of soil.

Corrosiveness (Hazard class 8): for example, caustic drain cleaner Ability to oxidise (Hazard class 6): accelerate a fire, for example hydrogen peroxide

PERSONAL PROTECTIVE EQUIPMENT can include:













Apron

Long sleeved Gloves

Overalls

Face Shield

Respiratory mask (Use correct vapour / particle filters)

Rubber footwear

STOP

What am I doing?

THINK

What could go wrong?



Do it the safest way!

Work Areas

Storage - Chemical sheds

Agri chemicals should be stored in a lockable, ventilated shed with adequate hazard signage displayed at entry ways. Chemicals must be stored in original containers with appropriate labels.

All chemical sheds to have a water supply nearby for mixing.

Plant wash chemicals / Dairy Shed

Must be an MPI approved chemical.

Supplier to provide farm workers with training on how to handle and mix plant wash chemicals. Training records to be kept.

Application area - Farm

The areas to be spot sprayed will be dependent on weed location. If around other hazards, then precautions must be taken relevant to that hazard. Ie Effluent Pond, roadside, pump shed, drains etc.

Spray contractors

Any contractors coming on farm to spray/handle/store chemicals are expected to consult and co-ordinate activities before any work commences. They must have easily available the chemical Safety Data Sheet.

Procedure

Pre-Start Checks

- · Anyone using chemicals must be trained.
- Check weather/environmental conditions (wind, rain). Don't spray when it is frosty, windy or raining
- Wear the correct Personal Protective Equipment Refer to Safety Data Sheet. (SDS)
- Know what chemical you should use for the job and the correct mixing rate.

Notes

- Training needs to be provided by qualified personal
- GrowSafe training may be required Refer to Safety Data Sheet / chemical provider
- Class 6.1A and 6.1B must have training as a Certified Hander.

Prepare the Work Area

- Ensure Emergency Procedure are in place
- Check the chemical for use is in its original packaging with original label.
- Check the equipment is in good condition Sprayer, knapsack,
- Check Personal Protective Equipment is in good condition Overall, Face shield, long gloves

Notes

- The label and Safety Data Sheet will give you information about:
 - the product's hazards, first aid, what to do if there is a fire, what to do if there is a spill.

Emergency Procedures

Chemical INCIDENT

- Apply First aid
- Fire-fighting equipment
- PPE and RPE for rescuers
- · Emergency contact details

CHEMICAL SPILL

- Keep people away
- Wear correct safety gear as Safety Data Sheet / Label
- Stop the spill if safe to do so. Use containment material in spill kit.
- Use provided shovel and brush to place contaminated material in spill kit.

- Ensure there is a first aid kit available on the farm.
- Ensure the first aid kit has eye wash available in it.
- Ensure there are Fire extinguisher onsite in easy to acess locations
- An emergency spill kit should be available onsite
- If there are staff employed onsite ensure their emergency details are correct
- Minor spill: A spill involving less than 200 litres of any other chemical or fuel.
- If you can't identify the substance without putting yourself or others in danger, treat the product as the most hazardous you have on the farm. It's important that you tell others before you tackle any spill clean-up.
- The person in charge should assess why the spill happened and review the farm's procedures so that it won't happen again.
- Poison helpline 0800 764 766
- · Contact your regional council's pollution helpline
- Have chemical inventory and Safey Data Sheet's easily available for emergency services

Carry out the Task

- Wear correct Personal protection equipment for Mixing i.e. Apron, boots, face shield, gloves
- Wear correct PPE for spraying i.e. Overalls, boots, face shield, gloves
- Put on appropriate PPE (As per SDS)
- Mix / use chemicals as per instructions
- Always fill water first then add chemical.

Notes

- Stop spraying immediately if there is a leak (backpack leaks).
- These MUST NOT be mixed at the dairy shed or surrounds.

Tidy-up

- · Ensure chemical shed is locked
- Clean and store PPE
- · Check and store equipment used
- · Any empty containers to be triple rinsed
- Unused chemicals to be stored as per SDS
- No longer required chemicals to be disposed of as per SDS

Notes

- You should always wash your hands, arms and face after working with farm chemicals
- · Remove and wash clothing after spraying
- Refer to Ag Recovery recycle programme to dispose of chemicals and their containers.

For details on Agrecovery collections in your area visit **www.agrecovery.co.nz**

Freephone: 0800 (AGRECOVERY) 247326 Email: info@agrecovery.co.nz Website: www.agrecovery.co.nz

Records

- Worksafe Hazardous Substance Calculator up to date with all chemicals stored and handled on farm.
 https://www.hazardoussubstances.govt.nz/workbook
 PIN:
- All chemicals must have a valid Safety Data Sheet which is kept up to date.
 - Keep a record of where the hard copy is located
 - Keep an electronic copy located in easy to locate file
- · Always report any incidents accidents or near misses
- Review and implement controls as identified by the WorkSafe Hazardous Substance calculator.
- In case of an emergency have Safety data sheets and Inventory Register easily available for emergency services.

Additional Notes

- Many chemicals and fuels are hazardous substances and are controlled under the Health and Safety at Work (Hazardous Substance) Regulations 2017
- More information on chemicals used on farms is available in the New Zealand Standard NZS 8409: Management of Agrichemicals.
- Worksafe Hazardous Substance Toolbox Workbook https://www.hazardoussubstances.govt.nz/workbook
- Environmental Protection Authority https://www.epa.govt.nz/
- Ministry of Primary Industries approved chemicals https://www.mpi.govt.nz/food-business/maintenance-cleaning-products-animal-product-processing/maintenance-compounds-used-dairy-processing/

Training providers

Course	Provider
Agri Chemicals	GrowSafe https://www.growsafe.co.nz/
Certified handler:	Adroit Solutions, Certified Handler - https://www.adroitsolutions.co.nz/page/certified-handler-info-page/
Chemical Handling and Spill Management:	Adroit Solutions - https://www.adroitsolutions.co.nz/hazardous-substance-info-page/

CHEMICAL MIX RATES (Poster)

Tordon XT 250ml/100L + penetrant 100mls per/100L

Knapsack 6mls per L + penetrant 10mls/L

Maestro (MCPA) Knapsack 5mls/L

Handgun 1.5L per 100L

MCPB/Tropotox Knapsack 10mls /L

G360 Glyphosate Handgun 1L/100L + penetrant 100ml Knapsack 10mls/L + penetrant mls/L

BRUSH KILLER 25-30ML/10L 250-300/100L

Use knapsack rate for bike sprayer as well

15 L knapsack 80 L Bike sprayer 500 spray tank

Weeds to spray



Broom



Gorse



Thistle: Scottish



Thistle: Nodding



Thistle: Californian



Rinse container immediately after use. Chemical residues are much harder to remove when dry.

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- Use a brush or high pressure hose for stubborn or dried chemical residue.
- · Dirt and dye stains are acceptable.

Use methylated spirits to remove dried residue. If that doesn't work, fill container with water and soak for 24 hours before **triple** rinsing.

(Uk. S. 2028)
Follow instructions on product label or contact the manufacturer.



