



Agrichemicals

Product Label/MSDS Information

The product label is the first source of information for users.

For more in-depth information about the active ingredients, the Material Safety Data Sheet (MSDS) is recognised as a means of supplying information for users to support the safe use of all chemicals.

It is the user's responsibility to ensure that they have adequate information available on any product which may be hazardous to themselves, their employees and other people in the place of work.

The **MSDS** would be expected to contain detail on:

Identification

- The product name, physical properties and a description of the ingredients in the product.

Health Hazard Information

- Known health effects that may result from exposure to the agrichemical. First aid instructions.

Precautions for Use

- Requirements for controls including personal protective equipment.

Safe Handling Information

- Storage and disposal requirements.

The **label** will contain information identifying the ingredients and provide hazard classification and warning statements for the safe handling and use of the agrichemical.

Information About Re-Entry To Work In Sprayed Areas

- Contact re-entry (CON): minimum time required to elapse after application before unprotected re-entry can take place into a treated area where skin contact is likely to take place.
- Non contact (NON): minimum time required to elapse after application before any unprotected re-entry into a treated area where no skin contact with any surface can take place.
- Animal handling interval — minimum permissible time required to elapse before any unprotected handling of the animal can take place after application.

Storage and Disposal

Minimum requirements that apply to any storage facility used to store agrichemicals:

- Any spillage of agrichemical or water used to clean up spills must be contained.
- The store can contain an outbreak of fire (prevent fire from spreading) or protect goods contained from fire.
- Properly placarded signage (HAZCHEM).
- Adequately ventilated and not subject to excessive dampness.
- Secure and lockable.
- Suitable fire extinguishing equipment available.
- Complies with local authority bylaws and the *New Zealand Building Code*.
- Store chemicals only in their original containers and ensure the containers are closed and clearly labelled.
- Incompatible chemicals, i.e., those that will adversely react if mixed together, must not be stored together.

Disposal of Containers

- *Label information:* this should contain information on safe disposal methods for the container.
- *No label information:* all containers of liquid formulations shall be triple rinsed into the spray tank then emptied. Acceptable alternatives are:
 - Return empty container to supplier.
 - Sell to a firm dealing with used drums who is equipped to neutralise the chemicals. Take to a recognised public sanitary landfill site.
 - Burning of cardboard and paper containers can be carried out in small quantities once they have been completely emptied.

Handling Methods

Mixing Chemicals

Check the label or MSDS sheet for the minimum protective equipment required. When mixing concentrated agrichemicals, eye protection, gloves, boots and overalls should be worn as a minimum, but check the label

instructions. When exposed to dusts or volatile liquid, an appropriate respirator should be worn.

- Do not exceed the recommended quantities.
- Ensure protective clothing and equipment is used by all persons mixing chemicals.
- Ensure there is good ventilation.
- Should any person be splashed with chemicals, they should wash immediately.
- Do not eat or smoke while handling chemicals.

Level of Protection Required/Level of Exposure

Protective Clothing/Personal Protective Equipment (PPE)

When assessing the type of PPE required, consideration should include: agrichemical type and formulation; risk of exposure (concentrated or diluted); user comfort; practicality; worksite conditions; frequency of use of protective equipment; ease of decontamination, and health effects from contamination.

Protective clothing and equipment is provided to minimise the risk of harm to persons when using agrichemicals by:

- Inhalation — breathing in fumes, dust or mist.
- Ingestion — when eating or drinking with contaminated hands.
- Skin absorption — from agrichemical contact with hands and other unprotected areas of skin. Skin absorption can be significant for a number of pesticides.

Respirators

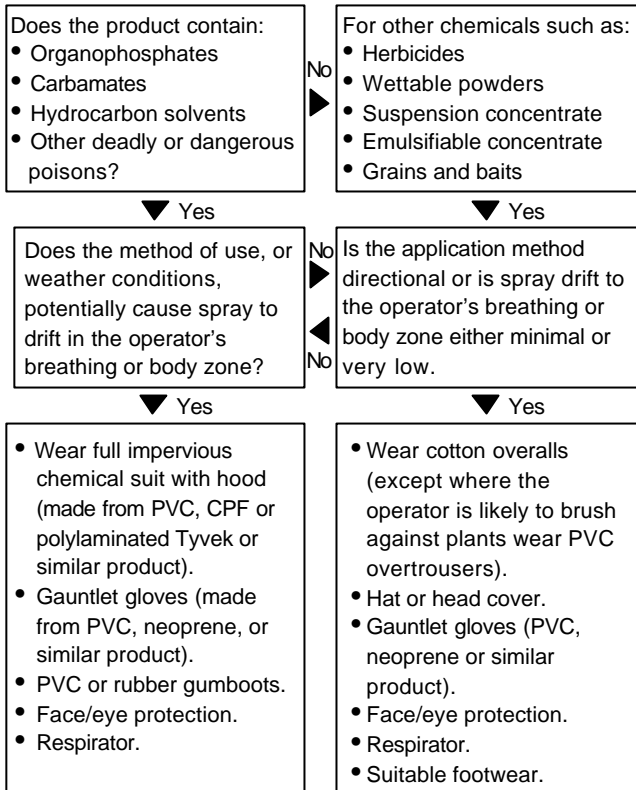
- Ensure the respirator is suitable for the chemical being used by referring to the label, MSDS or equipment supplier.
- The most common type used with most agrichemicals will either be an air-purifying type suitable for dust and mist, or the gas-type filter suitable for organic vapours and volatile pesticides, or a combination of both.
- Always check the shelf life of filters.
- If you start tasting or smelling the fume or have difficulty breathing while using the mask, change the filter immediately.
- It helps to extend the life of the filter by keeping the respirator in an airtight container when not in use.

Health Monitoring

The health of any person working with organophosphate or carbamate pesticides should be monitored regularly. This will apply even where the appropriate equipment is used. OSH recommends that all organophosphate users should take advice on the need for blood tests to monitor blood cholinesterase activity. It may also be necessary to monitor health in relation to other chemicals. Advice can be obtained from OSH on health monitoring.

How to Select Suitable Protective Clothing for the Safe Handling of Agrichemicals

Note: Always wear a minimum of face/eye protection and gloves when mixing concentrates into spraying strength mixture.



Caution: The chart gives guidance only. If in doubt, seek expert advice or wear maximum protection.

Have You Assessed the Critical Factors for Agrichemicals on the Critical Factors Chart?

- Labelling/MSDS sheets
- Storage/Disposal
- Handling method
- Level of protection required
- Level of exposure
- Health monitoring.

References

Further information is contained in:

- Health and Safety in Employment Act 1992.
- *Guidelines for the Provision of Safety, Health and Accommodation in Agriculture*, available from OSH.
- NZS 8409: 1995 *Agriculture user's code of practice*
- *Farm Health and Safety Manual* available from Federated Farmers.
- *Critical Factors Chart* available from OSH. (A guide for farmers to manage hazards in the workplace.)