



# What do you need to know about the Globally Harmonised System (GHS) of Classification and Labelling of Chemicals?

## What is the GHS?



The GHS is a system used to classify and communicate chemical hazards using internationally consistent terms and information on chemical labels and safety data sheets. The system was developed by the United Nations with the intention of harmonising the many different chemical classification systems in use around the world.

The GHS provides criteria for the classification of physical hazards (e.g. flammable liquids), health hazards (e.g. carcinogens) and environmental hazards (e.g. aquatic toxicity).

## What is happening with the GHS in Western Australia?

Western Australia has included use of the GHS (edition 7) as part of the Work Health and Safety (General) Regulations 2022 and the Work Health and Safety (Mines) Regulations 2022, and therefore chemical classification and labelling is required to be GHS compliant.

## Does the GHS replace the Australian Dangerous Goods Code (ADG Code) for dangerous goods transport?

No. When transporting dangerous goods, it is a requirement to comply with the [Australian Dangerous Goods Code](#) (ADG Code). You must continue to comply with the ADG Code and relevant State and Territory dangerous goods transport laws for road and rail.

## What information is required on a label?

The GHS introduces different classifications and labelling in the following ways:

The label for 'Aromasol' contains the following information:

- Product Identifier:** Aromasol
- Quantity:** 2.5 L
- Signal Word:** DANGER
- Hazard Statements:** Highly flammable liquid and vapour; Toxic if swallowed; Causes skin irritation; May cause cancer; May be fatal if swallowed and enters airways.
- Pictograms:** Flammable (F+), Corrosive (C+), and Toxic (T+).
- Precautionary Statements:**
  - IF ON SKIN (or hair): Take off contaminated clothing and wash before re-use. Rinse skin using plenty of soap and water. IF exposed or concerned: Get medical advice/attention.
  - IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician. Do NOT induce vomiting. Store locked up in a well-ventilated place. Keep cool. Dispose of contents/container in accordance with local regulations.
  - In case of fire: use powder for extinction. Keep away from sparks and open flames—No smoking. Keep container tightly closed. Ground/bond container and receiving equipment. Take precautionary measure against static discharge. Wear protective gloves and eye and face protection. Wash hands thoroughly after handling. Do not eat, drink or smoke when using this product.
- Contact details of Australian Manufacturer or Importer:** Madrop Chemical Company Pty Ltd, 959 Chemical Street, Chemical Town, My State 12344; Tel: 1300 000 000; www.madrop-chemicalcompany.com.au

GHS Compliant Label, by Comcare

### Signal words

Either Danger or Warning to describe the hazard level.

### Hazard statement

The hazard statement is a description of the chemical hazard assigned to a particular hazard category, for example 'highly flammable liquid and vapour' or 'causes skin irritation'.

### Precautionary statement

Precautionary statements recommend actions to take to reduce the risk of chemical exposure. These phrases are specific to prevention, storage, disposal and response, for example 'keep away from heat/sparks/open flames/hot surfaces – no smoking', 'wear protective gloves/eye protection/face protection' or 'store in a well-ventilated space'.

### Pictograms

There are nine hazard pictograms in the GHS:

	Acute toxicity via oral, dermal or inhalation		Explosives, self-reactive substances, organic peroxides.		Flammable, pyrophoric, self-heating substances; water reactive
	Oxidising substances, Organic peroxides		Hazardous to the environment, aquatic toxicity		Corrosive, skin damage, eye damage
	Aspiratory or respiratory hazard, carcinogenicity, mutagenicity		Compressed, liquefied or dissolved gases		Acute toxicity, skin irritation, eye irritation, skin sensitizers

Nine hazard pictograms in the GHS, by Comcare

Where there is an equivalent ADG dangerous goods pictogram available, that is an acceptable alternative to a pictogram. The table below compares GHS hazard pictograms with the corresponding ADG Code labels.



Comparison between GHS hazard pictograms with the corresponding ADG Code labels, by Safe Work NSW.

## Special labelling situations

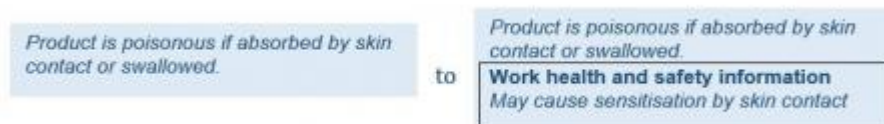
Pesticide and veterinary medicine labels (other than some Schedule 4 and Schedule 8 veterinary medicines) have also introduced GHS based information.

It is important to note that pesticides and veterinary medicines in Australia go through a rigorous risk assessment process and are registered via the Australian Pesticides and Veterinary Medicines Authority (APVMA) before they can be used. All necessary information and controls to reduce risks to workers, the public, industry and the environment are included on the label.

The GHS labelling system, now included on labels in relation to hazards, is hazard based – that is, hazard information is included on the label whether the hazard has been addressed under the APVMA’s risk assessment process or not.

Hazard based labelling systems have been used for other workplace chemicals and included on safety data sheets for pesticides and veterinary medicines for many years.

If the existing risk based phrase is similar to the hazard based phrase the change may only include the addition of a hazard statement. For example, the warning on a herbicide label may change from:



Example of the change from 'risk based' to 'hazard based' labelling system, by WorkSafe, Department of Mines Industry Regulation and Safety

This change of approach means you see more safety and health warnings on some new pesticide and veterinary medicine labels (including warnings about chronic health hazards such as cancer); however it doesn't mean that the pesticide or veterinary medicine is more hazardous than previously thought. GHS hazard phrases relate to hazards to the user of the chemical product as supplied, rather than to consumers of end products such as food crops or animals. Any hazards to consumers are considered as part of the APVMA's risk assessment.

Consumer products and therapeutic goods require labelling under the Poisons Standard and the Therapeutic Goods Act 1989. Chemicals which are used in workplaces in quantities and ways that are consistent with household use, and are used in a way that is incidental to the work that is being carried out, do not need to be labelled in accordance with the GHS.

Therapeutic goods are exempt from workplace labelling when in a form and package intended for intake or administration to a patient or consumers, or intended for use for therapeutic purposes.

Veterinary medicines that are labelled in accordance with the Australian Pesticides and Veterinary Medicines Authority and are listed in either Schedule 8 or Schedule 4 (in the form and packaging consistent with direct administration to animals) are exempt from the labelling requirements of the GHS.

### Further information

- Safe Work Australia
  - [Using the GHS](#)
  - [Classifying hazardous chemicals – national guide](#)
- Globally Harmonized System of classification and labelling of chemicals (GHS) [website](#)
- National Transport Commission (NTC) – for further information on Australian Dangerous Goods Code (ADG Code) requirements, visit the National Transport Commission (NTC) [website](#)
- Work Health and Safety Commission
  - [Preparation of safety data sheets for hazardous chemicals: Code of practice](#)
  - [Labelling of workplace hazardous chemicals: Code of practice](#)