GHS - Globally harmonised system of classifying and labelling of chemicals

What you need to know

What is the GHS?
The acronym GHS stands for The Globally Harmonised System of Classification and Labelling of Chemicals. 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 a classification system, and if a workplace chemical is classified as hazardous using the system, a GHS based label and SDS (safety data sheet) will be required.

Benefits of adopting the GHS
There are expected to be a variety of benefits including:
- Enhancing health and environmental outcomes through providing an internationally consistent and well understood system
- Facilitating trade (reduced need to re-classify and relabel)
- Reduce the need for chemical testing against many classification systems
- Assist developing countries by providing an ‘off the shelf’ classification and labelling system.

Australia adopting the GHS in workplaces
The GHS was introduced in Australia on 1 January 2012 under the model work health and safety laws, with a transition period of five years. This transition period allowed chemical manufacturers and importers enough time to reclassify chemicals and implement necessary changes to labels and SDS (safety data sheets). During the transition period, the GHS or the previous hazardous substances and dangerous goods arrangements may be used for classification, labelling and SDS.

The GHS becomes mandatory under Workplace Health & Safety legislation in most Australian states and territories on 1 January 2017 with the exception of Western Australia and Victoria.

The current status of the GHS in WA
In December 2010, a number of amendments to the Occupational Safety and Health Regulations 1996 were gazetted. These provide chemical manufacturers and importers in Western Australia the option of using GHS based classification and labelling systems, or continuing to use the previous classification and labelling systems.
At this stage Western Australia has not mandated the use of the GHS, however, if businesses export/supply to other states or territories within Australia that will be implementing the GHS on 1 January 2017, they will need to be GHS compliant by this date. If WA businesses do not export/supply to other states and territories and do not wish to use the GHS at this time, they can continue using the existing Australian classification system (known as the Approved Criteria).

Transport of chemicals continues to be based on the *Australian Dangerous Goods Code* rather than the GHS and in Western Australia this falls under the jurisdiction of the Resources Safety Division of the Department of Mines & Petroleum.

**What is the expected impact of implementing the GHS in workplaces?**

The impact on most workplaces should be minimal. People will see some different pictograms (diamond shaped symbols) on labels and SDS. SDS will refer to a classification under the GHS instead of by the criteria of NOHSC/Safe Work Australia and have GHS-based hazard and precautionary (risk and safety) phrases. In general, substances that are hazardous under the NOHSC criteria will be hazardous according to the GHS. SDS are similar to the current MSDS and will still be in the Australian 16-header format.

The basic duties in relation to hazardous chemicals, including identifying hazards, obtaining safety data sheets and correct labelling, assessing risks, training staff, and implementing appropriate controls will not be affected by using the GHS. During worker training, the new pictograms, label format and hazard statements should be discussed.

**What do chemical manufacturers, importers or suppliers need to do?**

If you are a chemical manufacturer, importer or supplier in Western Australia and supply chemicals to other states and territories in Australia that are implementing the GHS on 1 January 2017 you will need to ensure that hazardous chemicals imported or manufactured after the 31 December 2016 are GHS compliant. Some importers have been receiving GHS labelled goods from GHS compliant countries for some time. If this is the case you may only need to check the classification and label and supply a GHS compliant SDS.

If you are a chemical manufacturer, importer or supplier in Western Australia and you do not supply chemicals to states or territories using the GHS, use of the GHS is not mandatory.

**Chemicals in the supply chain**

To avoid an unnecessary burden on chemical manufacturers, importers or suppliers to re-label existing stock and to assist with a smooth transition, chemicals manufactured or imported before 1 January 2017 can continue to be supplied without GHS labelling. Manufacturers, importers and suppliers will need to implement a system to identify which of their products fall into this category.
What are the changes?
The GHS introduces different classifications and labelling in the following ways:

**GHS Compliant Label**

### 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:

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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.

Special labelling situations
Pesticide and veterinary medicine labels (other than some Schedule 4 and Schedule 8 veterinary medicines) are also introducing 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.

Currently the occupational safety and health information on pesticide and veterinary medicine labels is risk based – that is, if a particular hazard had been risk assessed as unlikely under recommended methods of use, it may not have been shown on the label. The GHS labelling system, now to be 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:

- **Product is poisonous if absorbed by skin contact or swallowed.**
- **Work health and safety information**
  - May cause sensitisation by skin contact

This change of approach may mean 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:**
- For more information on the GHS and systems of labelling for workplace chemicals, see Safe Work Australia:
  - Frequently asked questions
  - the model Code of Practice: Labelling of workplace hazardous chemicals
  - the model Code of Practice: Preparation of safety data sheets for hazardous chemicals.
  - Guidance on Classification of Hazardous Chemicals under the Work Health and Safety (WHS) Regulations
- Further information on the APVMA’s processes, including processes for managing pesticide and veterinary medicine residues and assessing food safety, are available at [www.apvma.gov.au](http://www.apvma.gov.au).
- For more information on a particular chemical you use at work, refer to the Material Safety Data Sheet (available at your workplace, or on request from the manufacturer/importer).
- For GHS resources including posters and a GHS/ADG Quick Guide
- **Globally Harmonized System of classification and labelling of chemicals (GHS)**
- For information on the GHS in a video format – [Globally Harmonized System of Classification and labelling of chemicals (GHS)](http://www.ghs-link.org/)

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