

THE STREAMLINED GUIDE TO GHS

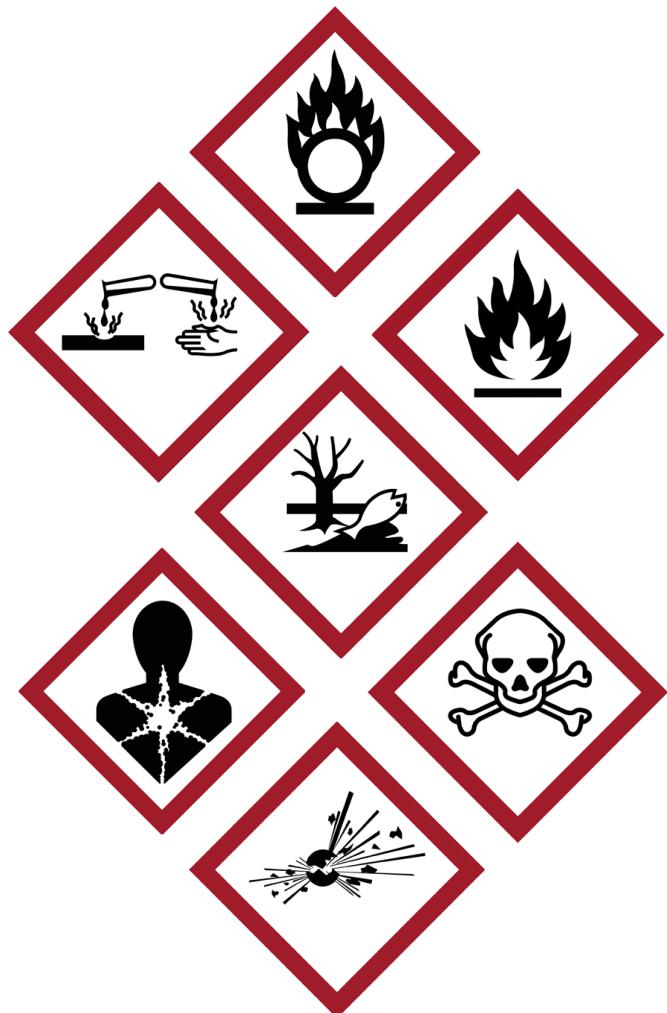
A COMPLETE RESOURCE TO NAVIGATE HAZCOM/GHS COMPLIANCE



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CHAPTER 1

WHAT IS GHS?

At this point, you've started hearing about GHS more and more, but how much do you really know about what it is and the steps you need to take to comply with it?



WHAT IS GHS?

GHS stands for Globally Harmonised System of Classification and Labelling of Chemicals. The GHS is an international regulation that the United Nations (UN) created. GHS has been fully or partially implemented in up to 67 countries in 2012.

Chemical labels and Safety Data Sheets (SDS), also known as the “purple book”, are the key sources of information for learning about how to safely use chemicals. All chemical labels and Safety Data Sheets will soon be written to follow the GHS to have common ways to describe chemicals and how to use them safely.

Without the GHS, countries around the world are left to determine their own standards for what chemicals are hazardous – and how to properly communicate those hazards. Each country handles this differently, which creates confusion and complexity for international manufacturers. The GHS is intended to create a single, universal format for Hazard Communication (HazCom) across the globe.



TERMS AT A GLANCE

GHS: Globally Harmonised System of Classification labelling of chemicals

SDS: Safety Data Sheet

HazCom: Hazard Communication

ADG: Australian Dangerous Goods

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GHS implementation in Australia has been occurring under the national Work Health & Safety law reforms. For most Australian states and territories* the new laws mean that full GHS implementation for both product labels and SDSs is required by 31 December 2016.

The GHS will affect any workplace that is currently subject to the HazCom regulations such as chemical suppliers, manufacturers, end users and testing laboratories.

In Australia, there is a five year transition period until the 1st January 2017. This allows companies to fully implement the new GHS standard in their facilities.

All elements of the GHS labelling system can be found and accessed in Annex 1-3 of the UN's 3rd revised edition of the Globally Harmonised Standard for Classification and Labelling of chemicals, found on their website.

*Victoria and WA have so far not introduced the laws which implement GHS. However, companies based in either state whose products are supplied or sold in other states and territories are still required by law to adhere to the GHS implementation deadline.



GHS – Workplace Usage



ADG - Transportation

GHS AND THE ADG CODE

There is close alignment of most GHS classes and the Australian Dangerous Goods (ADG) Code - Edition 7.3.

GHS Labelling requirements apply to hazardous chemicals used, stored or handled in the workplace (not being moved). Whereas, the ADG Code ensures safe transportation of dangerous goods and therefore the ADG Code's labelling/placarding applies to dangerous goods being transported as well as large storage tanks and storage areas in a workplace.

Both GHS and the ADG Codes will work along side each other.

GHS PICTOGRAMS



ADG PICTOGRAMS





WHAT'S CHANGING?

Previously, chemical labelling appeared differently based on regional requirements – so handling chemicals from another region could be confusing, dangerous and complex for both users and international manufacturers. Both GHS and the ADG Code will work along side each other.

There are 3 key changes that will be made during the implementation of the GHS:

- 1. Classification of chemicals:** The GHS will establish new criteria for classifying hazardous chemicals that is broader than the existing standards.
- 2. Standardised label format:** All chemical labels will have a standardised format with certain headings and phrases to describe the various hazards.
- 3. Standardised SDSs:** The GHS Safety Data Sheets will have a standard 16-section format with specific information required for each section.



THE BENEFITS OF GHS

The GHS will make it easier for employers, employees and the public to understand the hazards of chemicals, and take the necessary preventive and protective measures for their health and safety. It also offers a number of benefits for our government, companies and general public.

Here are the key benefits of GHS implementation:

- Enhance the protection of human health and the environment by providing an internationally comprehensible system.
- Provide a recognised framework to develop regulations for those countries without existing systems.
- Facilitate international trade in chemicals whose hazards have been identified on an international basis.
- Reduce the need for testing and evaluation against multiple classification systems.



CHAPTER 2

CHECKLISTS FOR GHS IMPLEMENTATION

Be prepared during the implementation of GHS and find out what steps you need to take to reach compliance.

GHS TIMELINE



2012



2016

Until 31 December 2016 only

HAZARDOUS SUBSTANCES

Approved Criteria for Classifying Hazardous Substances
[NOHSC:1008(2004)]

DANGEROUS GOODS

Australian Code for the Transport of Dangerous Goods by Road and Rail
(ADG Code)

LABELS

National Code of Practice for the Labelling of Workplace Substances
[NOHSC:2012(1994)]

MSDS

National Code of Practice for the Preparation of Material Safety Data Sheets
2nd Edition [NOHSC:2011(2003)]

TRANSITION PERIOD

From 1 January 2017

HAZARDOUS CHEMICALS

Globally Harmonised System of Classification and Labelling of Chemicals
3rd Revised Edition

LABELS

National model Code of Practice for the Labelling of Workplace Hazardous Chemicals

SDS

National model Code of Practice for the Preparation of Safety Data Sheet

DANGEROUS GOODS

Australian Code for the Transport of Dangerous Goods by Road and Rail
(ADG Code)



All of the above documents are available on the Safe Work Australia website at
www.safeworkaustralia.gov.au

GHS CHECKLIST

KEEP THESE TASKS IN MIND:

Process 1

- Note any new hazards identified on SDSs and potential Personal Protective Equipment (PPE) changes. As new chemicals are brought into your facility, new hazard and PPE needs may be created.
- Provide training to all new employees working with hazardous chemicals.



Process 2

- Schedule and document periodic re-training on pictograms, labels and SDS.
 - Post GHS signs, posters, and hand out wallet cards.
 - Be able to demonstrate that workers clearly understand the hazards associated with each chemical they're exposed to. Along with practice measures they must take.
 - Separate SDS and Material Safety Data Sheet (MSDS) binders and sheets as part of the management system. This will help you create secondary container labels with SDS information and determine which chemicals haven't been updated.



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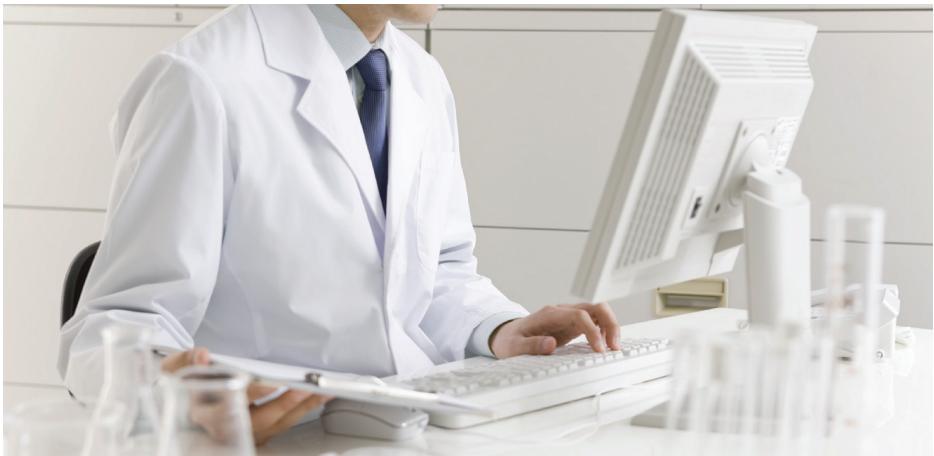
Process 3

- Identify secondary container labelling needs and procedures.
- Purchase GHS labelling equipment and supplies.
- Implement labelling procedures (create your own labels or order preprinted versions) based on new SDSs.
- Archive old MSDS for determined amount of time (We recommend 30 years).
- Re-train on GHS until full conversion to GHS is complete.



Process 4

- Update your chemical database as new SDSs are received.
- Review and ensure that all MSDS for any chemicals received after December 31, 2015, have been converted to SDS format.
- Notify and document your communications with suppliers who have not provided new SDS information.
- Audit all containers for compliance with updated regulations. Establish policies to control improperly labelled containers.



Process 5

- Ensure your training policy is in place, including new and existing chemical and internal product changes. Annual training is always recommended.
- Update and complete a written HazCom program that includes a system of labelling, pictograms, training schedule and how/where to obtain more information.
- Perform audits as conditions change or once a year to ensure program effectiveness.



PRIORiTY



BETWEEN DEADLINES

When you've tackled a deadline, don't just wait for the next one – be proactive about your GHS alignment!

Here are some steps to take between deadlines to help keep GHS top of mind in your workplace and prepare for full HazCom compliance.

- 1.** Create and maintain a chemical database.
- 2.** Maintain back-up source of information that's immediately accessible.
- 3.** Request any missing MSDS or SDS sheets.
- 4.** Train any new employees.
- 5.** Keep leadership informed.



TIPS

Most of the SDSs you need may be available online or through third party providers, such as **MSDSonline (msdsonline.com)**

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CHAPTER 3

5 STEPS TO GHS

Creating a compliant and sustainable GHS program can seem like a lot. By splitting it into 5 areas, you'll be ready for that deadline before you know it!

STEP 1

DEVELOP A WRITTEN HAZCOM PLAN

Include a summary of the hazardous chemicals, along with your written HazCom program or policy and training.

STEP 2

INVENTORY ALL HAZARDOUS CHEMICALS

Make a list of all of the hazardous chemicals being used throughout your facility.

STEP 3

ESTABLISH AND MAINTAIN A COMPLETE LIBRARY OF SAFETY DATA SHEETS (SDS)

Employees should have immediate access.

STEP 4

LABEL ALL HAZARDOUS STORAGE CONTAINERS, PIPES AND TANKS

Clearly communicate hazards to your employees with highly visible, durable labels.

STEP 5

TRAIN AND COMMUNICATE THE ELEMENTS OF HAZCOM TO YOUR WORKFORCE

Regular employee training, re-training and communication are essential elements of HazCom success.

In the following chapters, we'll go into more detail on just what each of these steps includes.

But first, we'll give you a glimpse at the steps you need to take to achieve a compliant and safer workplace.

NOTICE

HAZARD COMMUNICATION PLAN LOCATED HERE

CHAPTER 4

WRITTEN HAZCOM PLAN

Let's dive into exactly what each step entails, starting with a plan
- The first step towards HazCom success.



DEVELOP A WRITTEN HAZCOM PLAN

Your HazCom plan is what documents and outlines how your organisation responds to hazardous chemicals. You should have this written plan in place, maintained and easily accessible to employees at your workplace in order to keep them informed and safe from harm.

A written HazCom plan must include (at a minimum):

- Purpose and scope of the program.
- A list of known hazardous chemicals in the workplace (listed in the format of SDS).
- Labels that coincide with current information in the SDS.
- Training and information for employees to understand the HazCom standards, including new GHS labels and SDSs.
- Methods for updating, evaluating and conveying information about chemical hazards.
- Methods to accomplish non-routine tasks surrounding hazardous chemicals and the associated risks involved in executing those tasks (i.e. cleaning reactor vessels).
- Storage and transportation methods of hazardous chemicals and materials.
- Where and how employees must travel between workplaces and work shift changes when dealing with hazardous chemicals and materials.



CHAPTER 5

HAZARDOUS CHEMICAL INVENTORY MANAGEMENT

On to inventory! After all, when it comes to GHS compliance, it's essential to know what chemicals you're dealing with.



INVENTORY ALL HAZARDOUS CHEMICALS

It should come as no surprise that one of the most important parts of having an effective HazCom program is knowing what chemicals you use at your facility. That means taking inventory of every chemical that is handled and maintaining this inventory throughout the year.

For easy inventory management, make sure all containers are barcoded and you implement an inventory management system.

This should include:

1. Location tracking
2. Container tracking and reconciliation reporting
3. Unit of measure conversion and calculations
4. Material approval routings
5. Managing restricted and banned chemicals
6. Notifications of exceeded thresholds

With your chemicals accounted for and a system in place to continually track your chemicals, you're ready for Safety Data Sheets (SDS).



BEST PRACTICE TIP

When going through and inventorying your chemicals, take the time to properly dispose of any unused or outdated chemicals and organise the ones you need to keep.



CHAPTER 6

SAFETY DATA SHEETS

You know what chemicals you have. Now you need to keep them documented by using Safety Data Sheets (SDS).

As we dive into Safety Data Sheets (SDS), we'll answer some of the hot questions on this topic.

WHAT IS AN SDS?

Formerly called Material Safety Data Sheets (MSDS)*, the new Safety Data Sheets (SDS) follow a consistent, user-friendly format to communicate chemical hazards. They provide the information that's needed to understand what the chemical is, what hazards it presents and how to respond to these hazards. SDSs must accompany any hazardous chemicals that are distributed. SDS must be reviewed and re-issued every 5 years. Most of the SDSs you need may be available online or through third party providers, such as MSDSonline (msdsonline.com).

Company
ABC

SAFETY DATA SHEET

1. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

1.1 Product Identifier

Product name Carbon Monoxide

1.2 Uses and uses advised against

Use(s) Industrial use. Use as directed.

1.3 Details of the supplier of the product

Supplier name Company ABC
Address 1234 Long Road, Sydney NSW 2000
Telephone 02 9000 0000
Fax 02 9000 0001
Email technical@abc-company.com
Website www.abc-company.com

1.4 Emergency telephone number (s)

Emergency 1800 000 000

2. IDENTIFICATION OF THE MATERIAL AND SUPPLIER

2.1 Classification of the substance or mixture

CLASSIFIED AS HAZARDOUS ACCORDING TO SAFE WORK AUSTRALIA CRITERIA

GHS Classification(s) Flam. Gas 1/ Compressed Gas/ Acute Tox.3 (Inhalation gas)/ Repr. 1A/ STOT RE 1

2.2 Label elements

Signal word DANGER

Pictogram 

Hazard Statements H220 Extremely Flammable Gas.
H331 Toxic if inhaled.
H360 May damage the unborn child.

*Victoria & WA will continue to use MSDS.



Safety Data Sheets should be produced for all substances and mixtures which meet the harmonised criteria for physical, health or environmental hazards under the United Nations Globally Harmonised System of Classification and Labelling of Chemicals (GHS). The information in the SDS should be presented using the following 16 sections in the given order:

WHAT DOES AN SDS INCLUDE?

SECTION 1 - IDENTIFICATION

GHS Product identifiers, recommended use and restrictions, supplier's contact information and local emergency phone number.

SECTION 2 - HAZARD IDENTIFICATION

GHS classification of the substance/ mixture as well as GHS label elements such as: signal words, precautionary & hazard statements, pictograms and any other hazards that may exist.

SECTION 3 - COMPOSITION/INFORMATION OF INGREDIENTS

Information on the substance/mixture including chemical identity, impurities and stabilising additives, and, in the case of mixtures, concentration of ingredients.

SECTION 4 - FIRST AID MEASURES

Description of necessary first aid according to routes of exposure, most important symptoms/effects and indication of immediate medical attention and special treatment.

SECTION 5 - FIRE FIGHTING MEASURES

Details about suitable extinguishing media, hazards arising from the chemical (e.g. combustion), protective equipment and precautions for firefighters.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Includes personal precautions, protective equipment, emergency procedures, environmental precautions as well as methods and materials for containment and cleaning up.

SECTION 7 - HANDLING AND STORAGE

Description of precautions for safe handling and conditions for safe storage, including any incompatibilities.

SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

Control parameters including appropriate engineering controls and individual protection measures.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Description of chemical appearance (physical state, colour etc), odour and physical features (e.g. pH, melting point/freezing point, Initial boiling point/range, flash point).

SECTION 10 - STABILITY AND REACTIVITY

Information regarding chemical stability, possible hazardous reactions, incompatible materials, hazardous decomposition products and conditions to avoid (e.g. static discharge, shock or vibration).

SECTION 11 - TOXICOLOGICAL INFORMATION

Concise, complete and comprehensible description of the various health effects and the available data used to identify those effects (e.g. likely routes of exposure, symptoms, delayed and immediate effects from exposure and numerical measures of toxicity).

SECTION 12 - ECOLOGICAL INFORMATION

Information about the ecotoxicity, persistence and degradability, bioaccumulative potential, mobility in soil and other adverse effects.

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SECTION 13 - DISPOSAL CONSIDERATIONS

Description of waste residues and information on their safe handling and methods of disposal, including the disposal of any containment packaging.

SECTION 14 - TRANSPORT INFORMATION

Includes personal precautions, protective equipment, emergency procedures, environmental precautions as well as methods and materials for containment and cleaning up.

SECTION 15 - REGULATORY INFORMATION

Safety, health and environmental regulations specific for the product in question.

SECTION 16 - OTHER INFORMATION

For every chemical found to be hazardous, the chemical manufacturer or importer must develop a container label and an SDS and provide both documents to downstream users of the chemical. All employers with employees exposed to hazardous chemicals must develop a hazard communication program and ensure that exposed employees are provided with labels, access to SDS, and training on the hazardous chemicals in their workplace.





HOW DO YOU OBTAIN AN SDS?

Chemical manufacturers, distributors or importers are required to create SDSs for any chemical they offer.

These SDSs are then provided down the line to the companies that purchase and use the chemicals, in order to effectively communicate any relevant chemical information and hazards.

WHEN YOU HAVE THE SDS, HOW DO YOU GET TO A LABEL?

When you need to create your compliant GHS labels, the SDS has the content you need. With the SDS information in hand, you're then ready to order pre-printed labels or quickly create labels onsite with the right printing system.

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CHAPTER 7

CHEMICAL LABELLING

Speaking of labels, let's move on to what you need to label under GHS and what these labels should include.

WORK HEALTH & SAFETY REGULATIONS CLASSIFICATION & LABELLING FOR WORKPLACE CHEMICALS.

This shows GHS signal words, pictograms and hazard statements for each GHS hazard class and category covered by the WHS Reulations that will soon appear on labels and SDS for workplace hazardous chemicals.

| Classification | | Labelling | | | |
|--|----------------------------|--|----------------|------------------|---|
| Hazard | | Pictogram, code* | Signal word | Hazard Statement | |
| Class | Category | | | Code* | Text |
| Explosives | Unstable explosive |  GHS01 | Danger | H200 | Unstable explosive |
| | Division 1.1 | | | H201 | Explosive; mass explosion hazard |
| | Division 1.2 | | | H202 | Explosive; severe projection hazard |
| | Division 1.3 | | | H203 | Explosive; fire, blast or projection hazard |
| | Division 1.4 | No GHS Pictogram ⁽¹⁾ | Warning | H204 | Fire or projection hazard |
| | Division 1.5 | | Danger | H205 | May mass explode in fire |
| | Division 1.6 | | No Signal Word | N/A | No Hazard Statement |
| (1)=Explosives of Divisions 1.5 and 1.6 need to be labelled with their respective Dangerous Goods class label in accordance with the Australian Explosives Code. | | | | | |
| Flammable Gases | Category 1 |  GHS02 | Danger | H220 | Extremely flammable gas |
| Flammable Aerosols | Category 1 |  GHS02 | Danger | H222 | Extremely flammable aerosol |
| | Category 2 | | Warning | H223 | Flammable aerosol |
| Oxidising Gases | Category 1 |  GH03 | Danger | H270 | May cause or intensify fire; oxidiser |
| Gases under Pressure ⁽²⁾ | Compressed gas |  GHS04 | Warning | H280 | Contains gas under pressure; may explode if heated |
| | Liquefied gas | | | | |
| | Dissolved gas | | | | |
| | Refrigerated liquefied gas | | | H281 | Contains refrigerated gas; may cause cryogenic burns or injury. |
| (2) = The hazard class "Gases under Pressure" is subdivided into 'Groups' (not 'Categories'). | | | | | |
| Flammable Liquids | Category 1 |  GHS02 | Danger | H224 | Extremely flammable liquid and vapour |
| | Category 2 | | | H225 | Highly flammable liquid and vapour |
| | Category 3 | | Warning | H226 | Flammable liquid and vapour |
| | Category 4 | No Pictogram | Warning | H227 | Combustible liquid |
| Flammable Solids | Category 1 |  GHS02 | Danger | H228 | Flammable solid |
| | Category 2 | | Warning | | |

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| Classification | | Labelling | | | |
|---|-------------------|---|----------------|------------------|---|
| Hazard | | Pictogram, code* | Signal word | Hazard Statement | |
| Class | Category | | | Code* | Text |
| Self-reactive substances and mixtures ⁽³⁾ Organic Peroxides ⁽³⁾ | Type A |  | Danger | H240 | Heating may cause an explosion |
| | Type B |  | | H241 | Heating may cause a fire or explosion |
| | Type C and Type D |  | | H242 | Heating may cause a fire |
| | Type E and Type F |  | Warning | | |
| | Type G | No Pictogram | No Signal Word | N/A | No Hazard Statement |
| (3) = Two separate hazard classes have the same categories (and are therefore grouped). | | | | | |
| Pyrophoric Liquids | Category 1 |  | Danger | H250 | Catches fire spontaneously if exposed to air |
| Pyrophoric Solids | Category 1 | | Danger | H251 | Self-heating; may catch fire |
| Self-heating sub- stances and mixtures | Category 1 | | Warning | H252 | Self-heating in large quantities; may catch fire |
| | Category 2 | | Danger | H260 | In contact with water releases flammable gases which may ignite spontaneously |
| Substances and mixtures which, in contact with water, emit flammable gases | Category 1 | | Danger | H261 | In contact with water releases flammable gases |
| | Category 2 | | | | |
| | Category 3 | | Warning | | |
| Oxidising Liquids ⁽⁴⁾ | Category 1 |  | Danger | H271 | May cause fire or explosion; strong oxidiser |
| | Category 2 | | Danger | H272 | May intensify fire; oxidiser |
| | Category 3 | | Warning | | |
| (4) = Two separate hazard classes have the same categories (and are therefore grouped). | | | | | |
| Corrosive to metals | Category 1 |  | Warning | H290 | May be corrosive to metals |

| Classification | | Labelling | | | |
|--|--|---|----------------|----------------------|--|
| Hazard | | Pictogram, code* | Signal word | Hazard Statement | |
| Class | Category | | | Code* | Text |
| Acute Toxicity (Oral, Dermal or Inhalation) | Category 1 |  GHS06 | Danger | H300 H310 H330 | Fatal if swallowed Fatal in contact with skin Fatal if inhaled |
| | Category 2 | | | H301 H311 H331 | Toxic if swallowed Toxic in contact with skin Toxic if inhaled |
| | Category 3 |  GHS07 | Warning | H302 H312 H332 | Harmful if swallowed Harmful in contact with skin Harmful if inhaled |
| | Category 4 | | | | |
| Skin corrosion / irritation | Category 1A |  GHS05 | Danger | H314 | Causes severe skin burns and eye damage |
| | Category 1B | | | | |
| | Category 1C | | | | |
| | Category 2 |  GHS07 | Warning | H315 | Causes skin irritation |
| Serious eye damage / eye irritation | Category 1 |  GHS05 | Danger | H318 | Causes serious eye damage |
| | Category 2A |  GHS07 | Warning | H319 | Causes serious eye irritation |
| Sensitisation of the respiratory tract or the skin | Respiratory Sensiti-sers Category 1 |  GHS08 | Danger | H334 | May cause allergy or asthma symptoms or breathing difficulties if inhaled |
| | Skin Sensitisers Category 1 |  GHS07 | Warning | H317 | May cause an allergic skin reaction |

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| Classification | | Labelling | | | |
|---|---|---|----------------|--|---|
| Hazard | | Pictogram, code* | Signal word | Hazard Statement | |
| Class | Category | | | Code* | Text |
| Germ cell mutagenicity | Category 1A |  | Danger | H340 | May cause genetic defects (5) |
| | Category 1B | | | H341 | Suspected of causing genetic defects (5) |
| | Category 2 | | Warning | | |
| Carcinogenicity | Category 1A | | Danger | H350 | May cause cancer (5) |
| | Category 1B | | | H351 | |
| | Category 2 | | Warning | | |
| (5) = State route of exposure if it is conclusively proven that no other routes of exposure cause the hazard. | | | | | |
| Reproductive toxicity | Category 1A |  | Danger | H360 ⁽⁶⁾ H360F ⁽⁷⁾ H360D ⁽⁷⁾ H360FD ⁽⁷⁾ H360Fd ⁽⁷⁾ H360Df ⁽⁷⁾ | May damage fertility or the unborn child. May damage fertility. May damage the unborn child May damage fertility. May damage the unborn child. May damage fertility. Suspected of damaging the unborn child. May damage the unborn child. Suspected of damaging fertility. |
| | Category 1B | | | H361 ⁽⁶⁾ H361f ⁽⁷⁾ H361d ⁽⁷⁾ H361fd ⁽⁷⁾ | Suspected of damaging fertility or the unborn child. Suspected of damaging fertility. Suspected of damaging the unborn child. Suspected of damaging fertility. Suspected of damaging the unborn child. |
| | Category 2 | | Warning | | |
| | Additional category for effects on or via lactation | No Pictogram | No Signal Word | H362 | May cause harm to breast-fed children. |
| (6) = (state specific effect if known)(state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). | | | | | |
| (7) F = Fertility, D = Development (lowercase f, d = suspected effect). | | | | | |
| Specific target organ toxicity (single exposure) | Category 1 |  | Danger | H370 | Causes damage to organs ^(8,9) |
| | Category 2 | | Warning | H371 | May cause damage to organs ^(8,9) |
| | Category 3 |  | Warning | H335 | May cause respiratory irritation |
| | | | | H336 | May cause drowsiness or dizziness |
| | Category 1 |  | Danger | H372 | Causes damage to organs ⁽⁸⁾ through prolonged or repeated exposure ⁽⁹⁾ |
| | Category 2 | | Warning | H373 | May cause damage to organs ⁽⁸⁾ through prolonged or repeated exposure ⁽⁹⁾ |
| (8) = (state all organs affected, if known). (9) = (state route of exposure if it is conclusively proven that no other routes of exposure cause the hazard). | | | | | |
| Aspiration Toxicity | Category 1 |  | Danger | H304 | May be fatal if swallowed and enters airways |

* = The code for the Pictogram and Hazard Statement should not be included on the label.

Classification table also available from Safe Work Australia.



CHEMICAL LABELLING

Labelling is the foundation of GHS. In fact, GHS specifically aims to improve the quality and consistency of chemical labelling in order to enhance worker comprehension for safer chemical handling.

Secondary chemical containers must have 6 key elements in order to be safely and compliantly handled in the workplace.

All chemicals that are shipped from chemical manufacturers after January 1 2017, must contain this information, so let's dive into the 6 label elements and pictograms you need.

The next few pages cover all the GHS labels that can be used and their meanings.



TERMS AT A GLANCE

PRIMARY CONTAINER

The chemical container sent directly from your chemical manufacturer.

SECONDARY CONTAINER

The container that chemicals are transferred to once within the workplace.



PRIMARY CONTAINER LABELLING

Primary chemical containers are the bags, barrels, bottles, boxes, cans, cylinders and drums that you receive from the manufacturer. These containers should be labelled following the Australian Dangerous Goods (ADG) Code.

When a label is on a container directly from a supplier, this label cannot be removed, altered or defaced. If it needs to be replaced, the new label must contain the same information as the original.



ADG PLACARDS

While GHS requires proper chemical labelling, the Australian Dangerous Goods (ADG) Code requires proper labelling when you're shipping chemicals. This means when the product is shipped, the outer package must bear all of the required ADG marks and labels.

Essentially, ADG labelling does not change with GHS, but works concurrently. GHS and ADG Code hazard pictograms should never be used on the same label.

CLASS 1



CLASS 2



CLASS 3



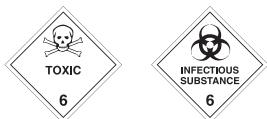
CLASS 4



CLASS 5



CLASS 6



CLASS 7



CLASS 8



CLASS 9



Others





SECONDARY CONTAINER LABELLING

These containers should be labelled following the GHS mandates, with the 6 label elements, including the appropriate hazard pictograms.

Secondary containers are usually:

- Small containers, such as spray bottles, jugs or jars
- Research chemicals or samples for analysis
- Decanted or transferred chemicals from the primary container
- Hazardous chemicals with known hazards NOT supplied to another workplace



Iso Propanol (IPA)

DANGER



Highly flammable liquid and vapour. Causes serious eye irritation. May cause drowsiness or dizziness.

Keep out of reach of children. Keep container tightly closed. Keep away from heat, hot surfaces, sparks, open flames and other ignition sources. No smoking.

IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

Company ABC | 1234 Long Road, NSW Australia
Emergency Phone Number: 000 Fire Brigade and Police | 1800 774 557 Transpacific Emergency Response | 13 11 26 Poisons Information Centre

Refer to Safety Data Sheet before use.

SECONDARY CONTAINER LABELLING (CONT.)

For secondary container labelling specifically, employers have the option to create their own workplace labels by either using all of the information that is on the label provided by the chemical manufacturer or using a combination of the product identifier, words and pictograms to provide specific information regarding the hazards of the chemicals.

Always be sure:

1. Labels don't conflict with the requirements of the GHS Hazard Communication Standard.
2. Employees have immediate access to specific hazard information.
3. Employees are trained to be aware of the hazards of the chemicals used.

GHS PICTOGRAM TRAINING GUIDE

GHS-compliant labels contain one or more standardised pictograms, which communicate important information about chemical hazards in your workplace.

Print this training guide and post it around your facility to increase safety and remind employees about the nine GHS pictograms and their meanings.

| Chemical / Physical Risk | Health Risk | Health Risk |
|---|--|--|
| Exploding Bomb Explosives, self-reactives, organic peroxides | Gas Cylinder Skin corrosion, serious eye damage | Environmental Aquatic toxicity |
| Flame Flammable gases, liquids, and solids, self-reactives, pyrophorics, self-heating | Skull & Crossbones Acute toxicity (severe) | |
| Flame Over Circle Oxidisers gases, liquids and solids | Exclamation Mark Irritant, dermal sensitiser, acute toxicity (harmful) | |
| Gas Cylinder Compressed gases, liquefied gases, dissolved gases | Health Hazard Carcinogens, respiratory sensitisers, reproductive toxicity, target organ toxicity, germ cell mutagens | |
| Corrosion Corrosives | | To learn more about GHS labelling and compliance, visit accidental.com.au |

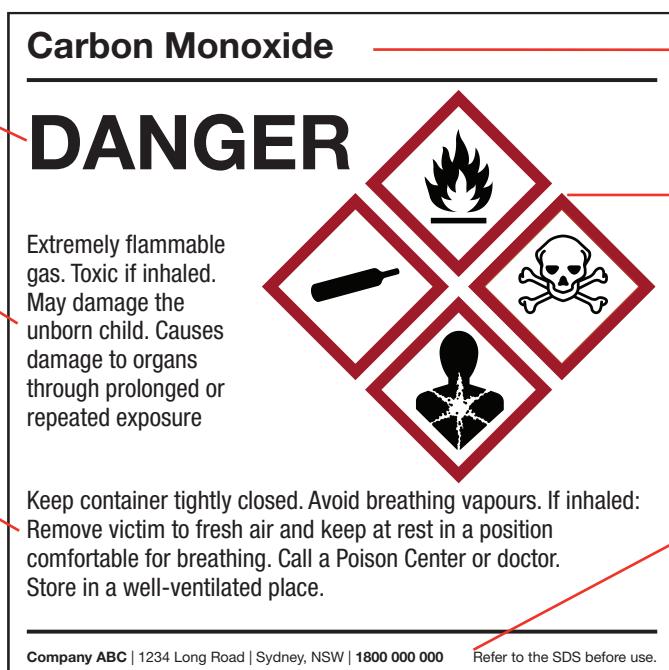
GHS LABELLING CHEAT SHEET

SIX ELEMENTS OF THE NEW GLOBALLY HARMONISED STANDARD (GHS) LABEL FORMAT

1. Signal Word:
Indicates relative level of hazard. "Danger" is used for most severe instances, while "Warning" is less severe.

4. Hazard Statements:
Phrases that describe the nature of hazardous products and oftentimes the degree of hazard.

5. Precautionary Statements:
Phrases associated with each hazard statement, that describe general preventative, response, storage or disposal precautions.



3. Product Name or Identifiers

2. Symbols (Hazard Pictograms):
Convey health, physical and environmental hazard information with red diamond pictograms. May use a combination of one to five symbols.

6. Manufacturer Information:
Company name, address & local emergency telephone number.

*Label may vary to the example label shown.



CHAPTER 8

TRAINING

Training is at the center of all of your GHS activities. After all, you need your employees to know the program, understand the hazards of the chemicals they're dealing with and know how to stay safe in order to achieve compliance.



TRAINING

Employee training and understanding is essential to the success of your GHS program. That means, training isn't just one-and-done, but a regularly performed activity with reminders throughout the year to ensure safety and compliance is achieved.

Employees should be trained on:

- New label elements
- SDS format

This training is an important first step in establishing your program and giving employees the information they need to protect themselves and those around them.

THE STREAMLINED GUIDE TO GHS



CONTINUOUS & ONGOING TRAINING

Employees should be trained on all elements of the new standard. They should know how to read and interpret hazardous chemicals and SDSs, and they should know where SDSs are stored.

Once the first training has been completed, it's important to keep up with the GHS standard and re-train employees throughout the year. Annual re-training is the best practice, but be sure employees are consistently informed of any changes in the program.

In addition, new employees should be trained on GHS, as well as any additional labelling your company is using.



BEST PRACTICE TIP

Regularly communicate and provide reminders, such as signs, posters, info cards or email updates, to keep employees actively aware of the program, its purpose and why it benefits them.



CHAPTER 9

CONCLUSION

Where to go from here?

THE STREAMLINED GUIDE TO GHS



There are lots of changes to keep track of for chemical suppliers, manufacturers, users and test labs. From training to SDSs and chemical labelling, there is plenty of work to be done before – and in between – each of the deadlines. Now is the time to get on top of these changes to create a safe and compliant workplace.



NEED HELP WITH GHS TRAINING AND LABELLING?



Accidental Health & Safety can help you comply with GHS by making it easier for you to:

- Understand the changes
- Assist with implementation
- Reduce costly errors

Accidental Health & Safety offers a variety of products and solutions to help you reach and maintain compliance:

- Printers for GHS signs and labels
- GHS printer consumables
- GHS posters
- GHS signs
- GHS wallet cards
- Training Booklets



Contact your local distributor
accidental.com.au/contact-your-local-representative

Accidental Health & Safety®

THE STREAMLINED GUIDE TO GHS

A Complete Resource to Navigate
HazCom/GHS Compliance

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