

## Dangerous Goods Onsite

### Outer warning signs & Diamonds

When storing dangerous goods onsite you will need to put a HAZCHEM Outer Warning Sign at the vehicle entrance to the premises to indicate to emergency services that there are dangerous goods onsite. A Hazchem Composite sign displaying the types of dangerous goods is required on the entrance to the building and the individual areas where the dangerous goods are kept. There is a diagram to help explain this on the second last page.



**Hazchem Composite Sign**  
(specify diamonds)

**H286M** 200x600mm Metal  
**H286QM**(Qld) 200x800mm Metal

(All diamonds must be a minimum of 100mm sq.)

**NOTE:** Codes before diamonds on composite signs no longer meet Australian Standards.



## HAZCHEM

**Outer Warning Sign**  
(required on every entry to property)

**H284S** - SS Vinyl 125x600mm  
**H284M** - Metal 125x600mm  
**H284P** - Poly 125x600mm

## HAZCHEM

**IN EMERGENCY DIAL  
000, POLICE or  
FIRE BRIGADE**

**Queensland Outer Warning Sign**  
**H290M** 300x600 Metal

SIZE & MATERIAL CHART				
SIZE	METAL .55mm	POLY 1.4mm	SS LABEL	ROLL PAPER LABELS
50x50mm (1000 Labels)				HXSR
100X100mm (1000 Labels)				HSR
100X100mm - PK 5			HSS	
250X250mm		HMP	HMS	
270X270mm	HLM	HLP	HLS	

 <b>1</b> HMP, HMS 250x250	 <b>1.4</b> HMS, HMP 250x250	 <b>1.5</b> Custom Only	 <b>2.1</b> HXSR 50x50 HSS, HSR 100x100 HMS, HMP, HLS, HLP, HLM 250x250	 <b>2.2</b> HSS 100x100 HMS, HMP, HLS, HLP, HLM 250x250	 <b>2.3</b> HSS 100x100 HMS, HMP 250x250	 <b>2.4</b> HSS 100x100 HMS, HMP 250x250 HLP 270x270
 <b>3</b> HXSR 50x50 HSS, HSR 100x100 HMS, HMP, HLS, HLP, HLM 250x250	 <b>4.1</b> HSR 100x100 HMS, HMP, HLM 250x250	 <b>4.2</b> HMS 250x250	 <b>4.3</b> HMS 250x250	 <b>5.1</b> HSS 100x100 HMS, HMP, HLM 250x250	 <b>5.2</b> HMS, HMP 250x250 5.2B Custom Only	 <b>6.1</b> HMP 250x250 HLP 270x270
 <b>6.1A</b> HSS, HSR 100x100 HMS 250x250 HLP, HLM 270x270	 <b>6.2</b> Custom Only	 <b>6</b> Custom Only	 <b>7.0</b> Custom Only	 <b>7.1</b> Custom Only	 <b>7.2</b> Custom Only	 <b>7.3</b> Custom Only
 <b>7</b> Custom Only	 <b>8</b> HXSR 50x50 HSS, HSR 100x100 HMS, HMP 250x250 HLS, HLP, HLM 270x270	 <b>9</b> HSS, HSR 100x100 HMS, HMP 250x250 HLS, HLP, HLM 270x270	 <b>10</b> HMS, HMP 250x250 HLP 270x270	 <b>11</b> HMS 250x250 HLS 270x270	 <b>12</b> SUB RISK LABEL HLS 270mm	 <b>13</b> HMS 250mm

## Globally Harmonised System

The **Globally Harmonized System of Classification and Labeling of Chemicals** or **GHS** is an **internationally** agreed-upon system, created by the United Nations. It is designed to replace the various classification and labeling standards used in different countries by using consistent criteria for classification and labeling on a global level.

<b>GHS 21</b> <b>Explosive</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 22</b> <b>Flammable</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 23</b> <b>Oxidizing</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 24</b> <b>Gases under Pressure</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 25</b> <b>Acute Toxicity</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 26</b> <b>Health Hazards</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 27</b> <b>Corrosive</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 28</b> <b>Chronic Health Hazards</b> HSS 100 x 100mm SS Vinyl (PK of 5)	<b>GHS 29</b> <b>Environmental</b> HSS 100 x 100mm SS Vinyl (PK of 5)

## The chart below shows the Hazchem diamond and the associated GHS symbol

Type of dangerous goods	ADG Code	GHS	Type of dangerous goods	ADG Code	GHS
Flammable Gases Class 2.1			Oxidizing substances Class 5.1		
Non-Flammable Non-toxic Gases Class 2.2			Organic peroxides Class 5.2		
Toxic Gases Class 2.3			Toxic substances Class 6.1		
Flammable Liquids Class 3			Corrosive substances Class 8		
Flammable solids, self-reactive substances and solid desensitized Explosives Class 4.1			Miscellaneous dangerous substances and articles Class 9		No equivalent
Substances liable to spontaneous combustion Class 4.2			Environmental hazard (ADG Code) Hazard to aquatic environment (GHS)		
Substances which in contact with water emit flammable gases Class 4.3					

## Bulk Storage Signs

A bulk storage sign has all the information on it that describes the chemical and the associated risks. This sign is for the onsite storage of bulk dangerous goods. The example below shows all the information that you will need to supply for us to make the sign. This can be generally found on the product itself or from the MSDS that you should have from your supplier. A Bulk Storage Sign may require more than one Hazchem diamond. These are called Sub Risk Diamonds as shown below.

Bulk Storage Sign 820mm x 430mm H288S or H288M

Chemical Name	ACETYLENE			Hazchem Diamond
UN Number	3374	FLAMMABLE GAS 2	TOXIC GAS 2	Sub Risk Diamond if required
Hazchem Number	2SE			

The bulk storage sign should be affixed directly to the storage unit or the structure surrounding the chemicals. This is achieved by sticking the sign in the form of a label directly to the storage unit or as a metal sign permanently attached to the structure of the storage unit. In both cases the sign needs to be clearly visible and un-obstructed and in contrast to its surroundings making it easily identified.

## Diesel

When storing C1 Combustible liquids in bulk. This sign is required.

# COMBUSTIBLE LIQUID

H296M 150x1500mm Metal H296S 150x1500mm SS Label

Some manufacturer's specifications could be different. There could be different options. So it is important to check and make sure that the information you have is accurate.

## Examples of Possible Diesel Placards

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\*Also used without the UN number.

## Other Common Substances

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~~3YE~~ ~~3[?]~~

Note: Letters S, T, Y and Z which in previous years were shown in reverse printing or square brackets for some dangerous goods, are now always shown in normal print indicating that breathing apparatus should be used for all significant incidents

## Transportation - Tanker Placards

A Tanker Placard or (Emergency information panel) is a sign that describes the chemical that is being transported in the container or tanker that it is attached to. Below is an example of a tanker placard and the information that is required on it. All of this information is needed from you when ordering a placard to be made. This can be generally found on the product itself or from the MSDS that you should have from your supplier.

Tanker Placard 800mm x 600mm H282M or H282S

<b>Chemical Name</b>	<b>PETROL</b>		<b>Hazchem Diamond</b>
<b>UN Number</b>	<b>1203</b>		<b>Sub Risk Diamond if required</b>
<b>Hazchem Number</b>	<b>3YE</b>		
<b>Emergency Contact</b>	<b>IN EMERGENCY DIAL 000, POLICE or FIRE BRIGADE</b>	<b>SPECIALIST ADVICE WSS CHEMICALS LTD (09) 9356 2100</b>	<b>Specialist Contact Information</b>

A Tanker Placard may require more than one Hazchem diamond. These are called Sub Risk Diamonds and the elevated temperature symbol is also treated as a sub risk and is laid out as follows. The main diamond must be 200mm and the sub risk must be 150mm. In the case of the elevated temp each side of the triangle must be 150mm.

<b>HYDROGEN PEROXIDE AQUEOUS SOLUTION</b> UN No. <b>2014</b> HAZCHEM <b>2P</b> IN EMERGENCY DIAL 000, POLICE or FIRE BRIGADE	 SPECIALIST ADVICE <b>WSS CHEMICALS LTD (09) 9356 2100</b>	<b>NE</b>  SPECIALIST ADVICE <b>WSS CHEMICALS LTD (09) 9356 2100</b>	<b>NE</b>  SPECIALIST ADVICE <b>WSS CHEMICALS LTD (09) 9356 2100</b>
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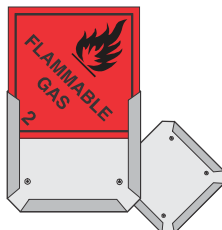
**H282BANNER 600x800mm**  
Tanker Placard with plastic pockets allows details to be changed as required  
Velcro fasteners ensures information is secure

Tanker Placards should be affixed directly to the Tanker in the form of a label or as a metal sign or banner (as pictured above) permanently attached to the structure of the transport unit. In any case the sign needs to be clearly visible and un-obstructed and in contrast to its surroundings making it easily identified.

## Hazchem Diamonds for transportation other than bulk.

When transporting dangerous goods there needs to be a hazchem diamond displayed. If you transport just one class of product a single diamond and holder will be sufficient at the front and back of the vehicle. If you transport various dangerous goods a flip flop Placard with up to 15 diamonds may be more appropriate.

**HAZCHEM DIAMOND HOLDERS**  
R40 - 253mm SQR Steel  
R41 - 273mm SQR Steel



### 15 DESIGNS



**FLIP FLOP PLACARD R30 - Metal**  
345x345mm Outer Dimensions  
275x275mm Diamonds

- Explosive 1
- Flammable Gas 2.1
- Non Flam/Non Toxic 2.2
- Toxic Gas 2.3
- Flammable Liquid 3
- Flammable Solid 4.1
- Spontaneous Combustible 4.2
- Dangerous When Wet 4.3
- Oxidising Agent 5.1
- Organic Peroxide 5.2
- Toxic 6.1A
- Corrosive 8
- Miscellaneous Dang. Goods 9
- Dangerous Goods
- Drive Safely

<b>PETROL</b> UN No. <b>1203</b> HAZCHEM <b>3YE</b> IN EMERGENCY DIAL 000, POLICE or FIRE BRIGADE	 SPECIALIST ADVICE <b>ACME INDUSTRIAL 1800 2121212</b>
<b>R43 - Interchangeable tanker placard holder 600mm x 800mm</b>	

## Segregation of Dangerous goods

When incompatible dangerous goods come into contact with each other, they can react adversely to cause a fire or explosion, or release toxic, flammable or corrosive vapours.

Incompatible goods must be prevented from making contact. It is important to understand which goods must be segregated to ensure they do not mix in case of spillage.

The chart below can be used as a guide to help determine if different combinations of dangerous goods are likely to be compatible and whether they need to be segregated during transport.

Segregation of dangerous goods must be in accordance with ADG Code requirements and any vehicle transporting a placard load of dangerous goods must have an emergency information holder, where all documentation and emergency information is kept.

## No Go Zones

Certain types of dangerous goods may be prohibited on some roads or in tunnels in and around capital cities. Check with your local roads authority in your state.

## KNOW YOUR CHEMICALS

To avoid any major explosions or accidents keep a segregation chart in the cabin of your vehicle for safe transport of chemicals

**H294LAM** 210x297 (A4) Small enough to keep in the vehicle.

**H294A3LAM** 297x420 (A3) Big enough to put on the wall.

Laminated Paper

### SEGREGATION CHART FOR DANGEROUS GOODS IN VEHICLES AND FREIGHT CONTAINERS

<b>1</b> EXPLOSIVE	DO NOT LOAD WITH		SEE NOTE 1	<b>4.3</b> DANGEROUS WHEN WET	DO NOT LOAD WITH	
<b>2.1</b> FLAMMABLE GAS	DO NOT LOAD WITH			<b>5.1</b> OXIDIZING AGENT	DO NOT LOAD WITH	Also do not load with Oils, Greases or Combustibles
<b>2.2</b> NON-FLAMMABLE NON-TOXIC GAS	DO NOT LOAD WITH			<b>5.2</b> ORGANIC PEROXIDE	DO NOT LOAD WITH	Also do not load with Oils, Greases or Combustibles
<b>2.2</b> (5.1) <small>SEE NOTE</small> OXIDIZING GAS	DO NOT LOAD WITH			<b>6.1</b> TOXIC	DO NOT LOAD WITH	OR Foodstuffs or Foodstuff Empiles, ETC
<b>2.3</b> TOXIC GAS	DO NOT LOAD WITH	OR Foodstuffs or Foodstuff Empiles, ETC		<b>7</b> RADIOACTIVE	DO NOT LOAD WITH	OR Foodstuffs or Foodstuff Empiles, ETC
<b>3</b> FLAMMABLE LIQUID	DO NOT LOAD WITH	OR Foodstuffs or Foodstuff Empiles, ETC		<b>8</b> CORROSIVE	DO NOT LOAD WITH	OR Foodstuffs or Foodstuff Empiles, ETC
<b>4.1</b> FLAMMABLE SOLID	DO NOT LOAD WITH			<b>9</b> MISCELLANEOUS DANGEROUS GOODS	DO NOT LOAD WITH	
<b>4.2</b> SPONTANEOUSLY COMBUSTIBLE	DO NOT LOAD WITH			<p>1 Refer to Explosives Regulations for details of the transport of Explosives</p> <p>2 Class 6.1 (toxic) is incompatible with any other class of dangerous goods as long as the total quantity does not exceed 1.50kg</p> <p>3 when both Classes are in bulk</p> <p>4 when the Class 3 substance is in bulk</p> <p>5 when the Class 8 substance is in bulk</p> <p>6 when the Class 8 substance is a fire risk substance</p> <p>7 when the Class 6 is a Cyanide and the Class 8 is an Acid (in solid)</p> <p>8 when the Class 8 substance is a fire risk substance</p> <p>9 EXCEPTION: Flammable gases in cylinders may be transported together with compressed oxygen or oxidizing gas mixtures</p> <p>10 Concentrated strong Acids is to be segregated from concentrated strong Alkalis.</p>		

H294

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## Contacts for Hazchem information

If you need more information about a Hazchem requirement one of these contacts may help. A copy of the Australian Dangerous Goods Code version 7 is available for download from the NTC.

National Transport Commission -  
 Worksafe Victoria -  
 Queensland Government -  
 Safework Australia -

[www.ntc.gov.au](http://www.ntc.gov.au)  
[www.worksafe.vic.gov.au](http://www.worksafe.vic.gov.au)  
[www.deir.qld.gov.au](http://www.deir.qld.gov.au)  
[www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)

03 9720 0700

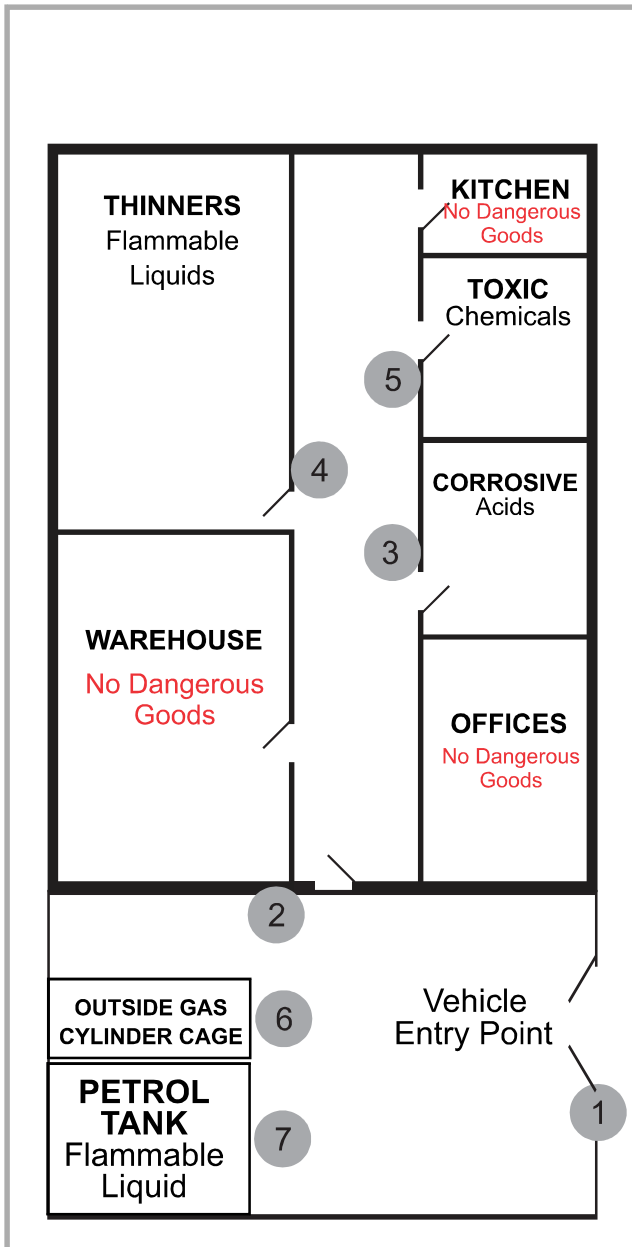
[jabac.com](http://jabac.com)

[info@jabac.com.au](mailto:info@jabac.com.au)



## Signage Diagram for Storing Dangerous Goods Example Only

1. An outer warning placard must be placed adjacent to all vehicle entry points.
2. Signs for dangerous goods other than C1 Combustibles must be placed at the entry points to the building.
3. Signs for dangerous goods other than C1 Combustibles must be placed on the entrance to each room that is used for storing the dangerous goods.



**1 OUTER WARNING SIGN**

**HAZCHEM** H284M Metal 125mm x 600mm  
H284S SS Vinyl 125mm x 600mm  
H284P Poly 125mm x 600mm

OR IN QUEENSLAND

**HAZCHEM** H290M Metal 300mm x 600mm  
IN EMERGENCY DIAL  
**000, POLICE or FIRE BRIGADE**

**2 COMPOSITE SIGN MADE TO YOUR REQUIREMENTS**

H286M Metal 200mm x 600mm fits up to 4 x 100mm diamonds  
H286QM Metal 200mm x 800mm (QLD) fits up to 6 x 100mm diamonds

**3 INDIVIDUAL DIAMONDS**

Must Be minimum 100mm diamond Available in:  
SS Labels HSS-100mm(pk of 5), HMS-250mm, HLS-270mm & HMP-250mm Poly, HLP-270mm Poly, HLM-270mm Metal.

**4** Must Be minimum 100mm diamond Available in:  
SS Labels HSS-100mm(pk of 5), HMS-250mm, HLS-270mm & HMP-250mm Poly, HLP-270mm Poly, HLM-270mm Metal.

**5** Must Be minimum 100mm diamond Available in:  
SS Labels HSS-100mm(pk of 5), HMS-250mm & HLP-270mm Poly, HLM-270mm Metal.

**6 COMPOSITE SIGN MADE TO YOUR REQUIREMENTS**

H286M Metal 200mm x 600mm fits up to 4 x 100mm diamonds  
H286QM Metal 200mm x 800mm (QLD) fits up to 6 x 100mm diamonds

**7 BULK STORAGE SIGN MADE TO YOUR REQUIREMENTS**

**PETROL** H288M Metal 430mm x 820mm  
H288S SS Vinyl 430mm x 820mm

**1203**   
**3YE**

## An Explanation of Hazchem Codes

### Eg. •2YE Meaning of First character of Hazchem Code

Denotes the Extinguisher media required to control fire if accident occurs. When the first character is a;

- 1 - use coarse water spray
- 2 - use fine water spray
- 3 - use normal foam (i.e; protein based foam that is not alcohol resistant)
- 4 - use dry agent (water **MUST NOT** be allowed to come into contact with substance.)

A bullet '•' sometimes proceeds 2 or 3 as above

- 2 - **alcohol resistant foam** is the preferred firefighting medium but, if it is not available, fine water spray can be used
- 3 - **alcohol resistant foam** is the preferred firefighting medium but, if it is not available, normal foam can be used

### Eg. •2YE Meaning of Second character of Hazchem Code

Denote the Personal Protection Required

Where the second character is a S, T, Y or Z, normal fire fighting clothing is appropriate. i.e, self contained open circuit positive pressure compressed air breathing apparatus worn in combination with fire kit, firefighters gloves and firefighters boots.

**Note: Letters S, T, Y and Z which in previous years were shown in reverse printing or square brackets for some dangerous goods, are now always shown in normal print indicating that breathing apparatus should be used for all significant incidents**

Where the second character is a P, R, W, or X, liquid tight chemical protective clothing in combination with breathing apparatus should be used.

Where the second character is a P, S, W, or Y, there is a danger that the substance can be violently or explosively reactive.

Where the second character is a W, X, Y or Z spillages or decontamination run-off should be prevented from entering drains and watercourses. Where the second character is a P, R, S or T, spillages and decontamination run-off may be washed to drains with large quantities of water. Due care however still be exercised to avoid unnecessary pollution of watercourses.

### Eg. •2YE Meaning of Third character of Hazchem Code

An "E" following the first two characters indicates that there may be a public safety hazard outside the immediate area of the incident, and that the following should be considered. People should be warned to stay indoors. None essential personnel should move at least 250 metres away from incident. The possible need for subsequent evacuation should be considered, **but it should be remembered that in most cases it will be safer to remain in a building than to evacuate.**