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# Before you begin

This learner guide is based on the unit of competency *TLID3014 Load and unload vehicles carrying special loads*, Release 1. Your trainer or training organisation must give you information about this unit of competency as part of your training program. You can access the unit of competency and assessment requirements at: [www.training.gov.au](http://www.training.gov.au).

## How to work through this learner guide

Your trainer will advise which parts of the learner guide you need to read, and which activities you need to complete. This learner guide will help you in your training.

Icon	Feature	How you can use each feature
	Learning content	Read each topic. Speak to your trainer if you need help.
	Activities	Activities give you the opportunity to put your skills and knowledge into action. Your trainer will tell you which activities to complete.
	Video clips	Where you see a QR code, you can use a smartphone or tablet to access video clips about the content. For information about how to download an app that will read the QR code, or for more help, visit our website: <a href="http://www.aspirelr.com.au/help">www.aspirelr.com.au/help</a>
	Workplace examples	Workplace examples at the end of each topic show how your learning applies in practice.
	Summaries	Key learning points are provided at the end of each topic.
	Words to remember	<p>As you read the learner guide, use the table at the back of the book to write down any words you need to remember.</p> <p>There is a space for you to write the word and a space for you to write down what the word means.</p> <p>You can also access a full glossary of terms via this QR code.</p>





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## Topic 1 | What you need to know about loading and unloading vehicles carrying special loads

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*Logistics involves the movement of goods through the supply chain from order to delivery. Goods are then loaded onto and transported by vehicles for that purpose.*

Goods of different shapes and sizes are manufactured using various materials. Generic transport options may suit some goods, but others require special handling and conditions when unloaded, loaded and handled.

In the transport and logistics industry, you need to consider regulations, the layout of the worksite, specialised equipment and procedures when handling vehicles carrying special loads.

**In this topic you will learn about:**

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**1A** Characteristics of loads, equipment and the worksite

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**1B** Transport requirements

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# 1B | Transport requirements

*When handling and transporting special loads, you must comply with codes of practice, regulations, guidelines and workplace procedures relating to loading and unloading.*

Codes, regulations, guidelines and procedures are developed to ensure that handling and transportation activities are undertaken in the safest possible way. When loading and unloading goods, you must understand code markings and be able to identify the risks and hazards that apply to various goods.

## Code markings

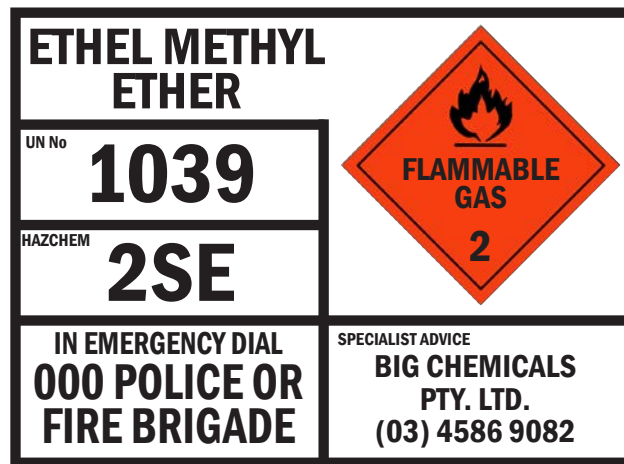
*Containers and goods are coded to alert and inform workers about the characteristics of the goods.*

The code markings identify what type of substance is held in the container. They also indicate how substances must be loaded and unloaded. Goods with code markings have special requirements that must be understood correctly to ensure the safety of all workers, the warehouse, transport carriers and the community. If code markings are misinterpreted when handling goods, the warehouse may be in breach of health and safety regulations and national transport regulations.

### Markings include:

- emergency information panels
- goods coding
- Australian Dangerous Goods (ADG) Code
- International Maritime Dangerous Goods (IMDG) Code.





## International Maritime Dangerous Goods (IMDG) Code

*The IMDG Code is an international guide for the safe transportation of dangerous or hazardous materials by sea.*

The IMDG Code was developed to provide an international system for classifying dangerous goods.

If goods are being loaded for sea travel or unloaded after sea travel, the codes must be recognised, read and interpreted correctly to ensure goods are handled correctly and safely.

Here are classifications of dangerous goods, what the classifications mean and what the label looks like.

### Class 1: Explosives



This classification has six subdivisions categorising materials posing high explosive risk and low explosive risk. Substances with this symbol can explode under certain conditions.

### Class 2: Gases



This classification includes flammable, non-flammable and poisonous gases. Substances with this symbol may explode if heated.

Risk-control method	What this means	Example
4. Engineering controls	Using new equipment or technology to reduce or control the risk.	Bollards are placed to prevent forklift trucks from running into racking.
5. Administrative procedures	Referring to documents that provide information and instructions on how to reduce or avoid the hazard.	Procedures are developed for using a new piece of equipment to minimise the risk of an incident occurring.
6. Personal protective equipment (PPE)	PPE is the last defence against a hazard, which should only be considered after the previous levels have been applied and some element of risk still exists.	Appropriate PPE is made available. This may include gloves, safety headwear and footwear (hard hats and steel-capped boots), safety glasses, two-way radios and high-visibility clothing.

Watch this video [01m:06s] on minimising the risk of hazards in the workplace.



## Identify hazards

***Hazards when loading and unloading goods must be controlled so that the risk of harm is eliminated or minimised.***

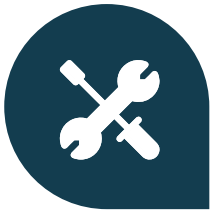
Hazardous cargo must be identified and handled appropriately according to workplace procedures. Hazards can be identified by reading and understanding what the class label means, or by reading the SDS associated with the type of cargo and checking incident reports.

An SDS will accompany the goods if it is the first time the goods have been handled in the warehouse. If the goods have been handled previously, the SDS will be found in the hazard register.

### Traffic management hazards

Traffic management hazards come from interactions between pedestrians and vehicles. Actions to reduce the chance of harm from traffic management hazards occurring include prohibiting non-essential staff from entering the loading and unloading area, providing warning signs, ensuring all people coming into the loading and unloading area wear high-visibility clothing, and allocating pedestrian safety zones.





*Read the following workplace example to see how the concepts you have learned are applied in a real-life situation.*

## Workplace example for Topic 1

Frances has received a pallet of goods that she is unsure about, and reads the delivery docket. She sees that the items are glass statues, and knows she needs to be careful with the goods as they are classed as fragile. Frances decides to use a pallet jack to move the goods so she can move them slowly and carefully to the storage area. She checks to make sure the load is stable, and that it is not too heavy to be moved with a pallet jack.

Frances first does a walk through the storage area to make sure it is free of obstacles so the load will not bump against anything. Frances asks her co-worker Jack to watch for forklift traffic when she is moving the pallet. She needs to move the goods slowly to avoid damaging the goods.

Watch the workplace example video [00m:53s] [here](#).



## Summary of Topic 1

1. The shape, weight, size, fragility and chemical characteristics of loads affects the selection of handling and transport equipment used to load and transport goods.
2. Load characteristics can be identified and understood by reading the SDS and information in the hazard register, by reading relevant documents, or by understanding signs and labels on cartons.
3. Once the characteristics of the goods have been identified, the most appropriate method for loading and unloading the goods can be selected.
4. When choosing equipment to move a load, the capabilities of the equipment must be considered. The weight and size of the load must not exceed the maximum capabilities of the equipment.
5. Containers and goods are coded to alert and inform workers about their characteristics. Goods with codes and markings have special requirements that must be understood correctly to ensure the safety of all workers, the warehouse, transport carriers and the community at large.
6. Once hazards have been identified, risk-control procedures need to be implemented. A hazard is something that may cause harm or injury to people or property.
7. Risk-control procedures are designed to minimise or reduce the risk of harm. A risk is the likelihood that a hazard will cause harm to a person or damage to property.
8. The types of goods being loaded on transport vehicles determines the appropriate way to secure loads.

## 2A | Carry out pre-load planning

*Before loading a vehicle, the characteristics of the goods, limitations of the vehicle and special handling requirements of the goods must be determined.*

It is critical to understand the nature of the goods that are being loaded onto a vehicle so that the load can be positioned appropriately, state or territory regulations are complied with and work health and safety (WHS) requirements are upheld.



## Identify and interpret codes

*HAZCHEM codes, emergency information panels (EIPs) and the International Maritime Dangerous Goods (IMDG) Code must be interpreted and understood so the appropriate handling and loading methods are used.*

It is critical to the safety of everyone involved with handling goods that relevant codes are recognised and operational procedures that apply to the goods are accurately followed.

The information on the emergency information panel has six components.



# Vehicle safety

***When working around a vehicle, actions need to be taken to ensure the transport vehicle is stable before attempting to load or unload goods.***

The vehicle must be stable and safe to ensure WHS incidents do not occur during the loading and unloading process. Actions can be taken to minimise the chance of harm occurring.

Goods must be unloaded safely, which includes ensuring the unloading location is appropriate, the transport path is adequate and temporary storage arrangements are suitable for the product. When equipment operators share space with transport vehicles, care must be taken to ensure all WHS requirements are upheld.

Here are actions that can be taken to ensure vehicle safety when loading and unloading.

## Action should be taken to ensure:

- the vehicle is positioned in a level and firm location
- the vehicle is clear of overhead powerlines
- vehicle brakes are applied
- stabilisers are used if required
- the load is spread evenly when loading and unloading
- the load is secured so it does not slip or slide.

# Secure and protect the load

***The load must be secure and protected. The appropriate restraining methods must be used to secure the load.***

Here are ways to use different methods of securing and protecting loads, and when they would be used.

## Tie-down: friction



To use this method of restraint, the load is secured using tie-down lashings. Lashings may be over the load or attached to parts of the load. Straps or chains must be tensioned to clamp the load to the vehicle.



## Activity 4

### Question 1

Which of the following relate to how WHS requirements can be applied when loading and unloading vehicles? Tick all that apply.

- ☐ Use loading and unloading equipment appropriate for the load.
- ☐ Use restraint straps to pull the load.
- ☐ Use correct manual-handling techniques.
- ☐ Ensure the work area is safe for vehicle and pedestrian traffic.

### Question 2

Circle the correct answer.

Lifting equipment should match the types of goods moved on or off the transport vehicle.

- \* True
- \* False

### Question 3

Draw a line from the type of restraint on the left to match the description on the right.

- |                                |  |
|--------------------------------|--|
| * Direct restraint: blocking   | * The load is contained in a tipper body or tank.                                  |
| * Tie-down: friction           | * The load is positioned against the headboard, a braced loading rack or bulkhead. |
| * Direct restraint: containing | * The load is secured using tie-down lashings.                                     |

### Question 4

Describe one way you can check that communication and collaboration is promoted in your workplace.