Module 4:

Common risk controls

Start Module

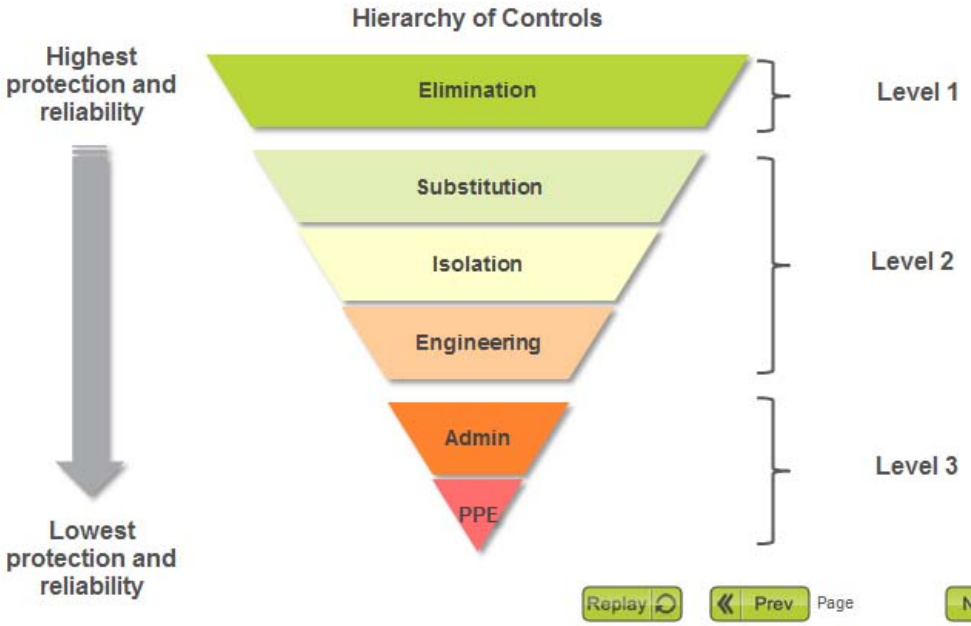
Module objectives

At the end of **Module 4: Common risk controls**, you will be able to:

- Summarise the common risk controls appropriate to dangerous goods and hazardous substances
- Interpret information on safety signs, Safety Data Sheets (SDS) and chemical substance labels
- Explain how different PPE can protect you from hazardous substances

Step 3: Treat risks - Refresher

Involves identifying, assessing, selecting, documenting and implementing the risk controls



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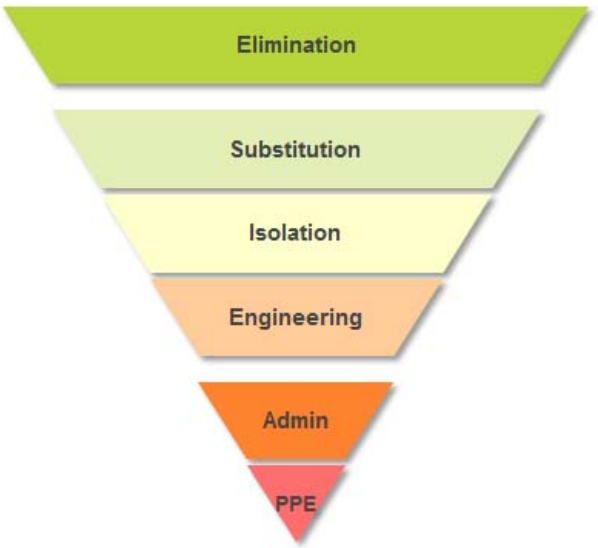
What does the Hierarchy of Controls mean?

Hierarchy of Controls	
Level 1: Always aim to eliminate the risk	
Elimination	Involves removing the risk altogether
Level 2: If it is not reasonably practicable to eliminate the hazards and associated risks, you should minimise the risks using one or more of the following approaches	
Substitution	Involves substituting the hazard with a hazard that has a lower risk
Isolation	Involves separating the hazard from the person at risk
Engineering	Involves applying mechanical devices or processes
Level 3: Should only be used as a last resort, an interim measure or to support a higher level control	
Administration	Involves minimising the risk by administrative means, such as procedures and training. It is not recommended to use this control on its own as it relies on human behaviour and supervision.
PPE	Involves using Personal Protective Equipment. While this option can provide added protection, it is considered the least effective control method.

What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.



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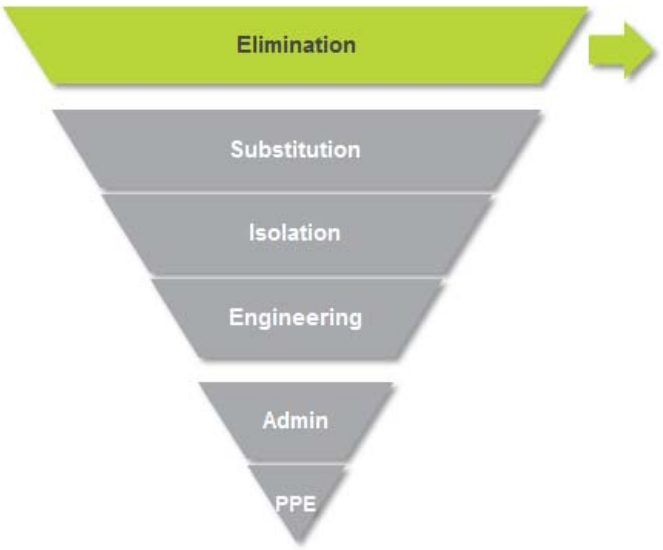
Click on each level of the Hierarchy of Controls below to find out more.

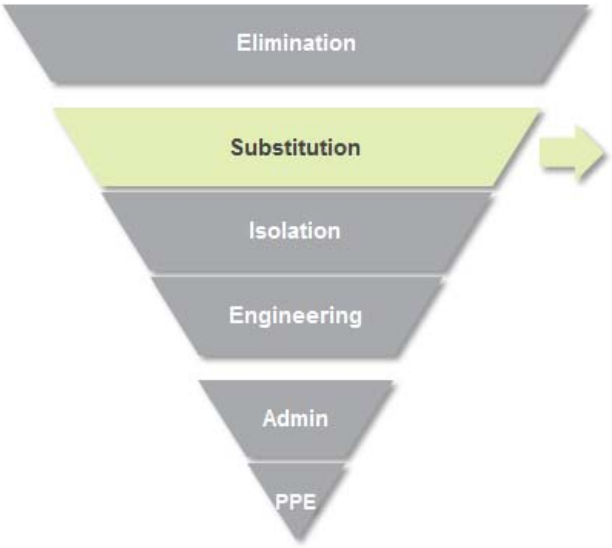


Dangerous goods and hazardous substances are **only used if necessary** for the specific task or purpose

All **unnecessary** substances are **removed** immediately from site and disposed of in line with the **disposal considerations** in the Safety Data Sheet

What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.



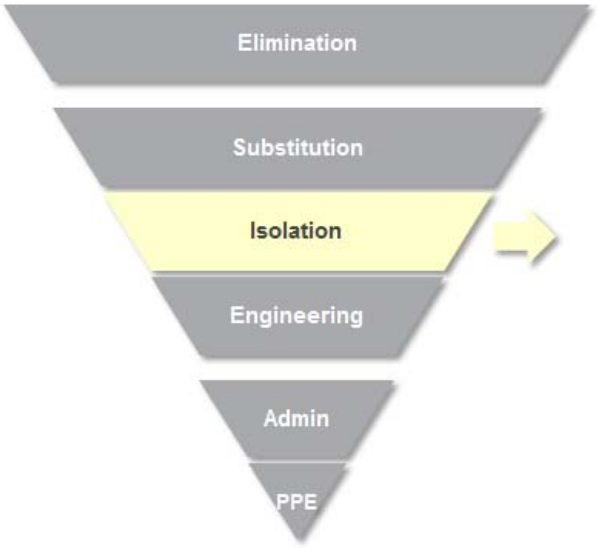
Wherever possible, a **safer** material is used as a **substitute**

For example:

Swapping a **toxic** cleaning chemical for a **non-toxic** alternative that still achieves the same result

What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.



Use a range of isolation measures to minimise the risks of **unauthorised** or **accidental interaction** with dangerous goods and substances

Sites may use **fences** and secure **areas** where entry requires a **key** or electronic **pass**

Some areas will be designated as '**no ignition source' areas** to isolate potentially **combustible** or **flammable** solids, liquids and gases

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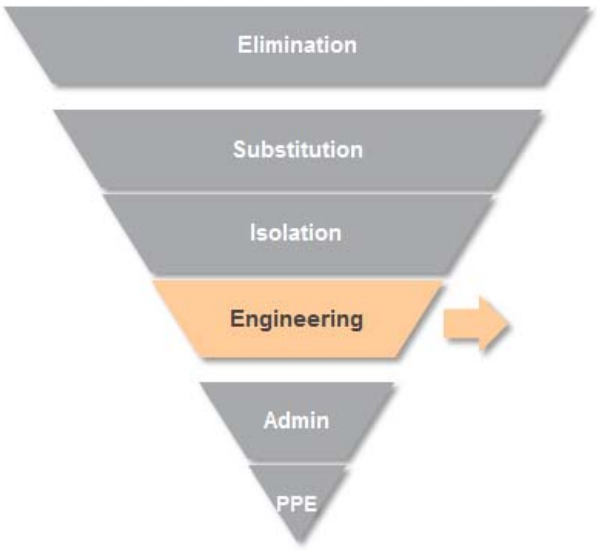
What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.

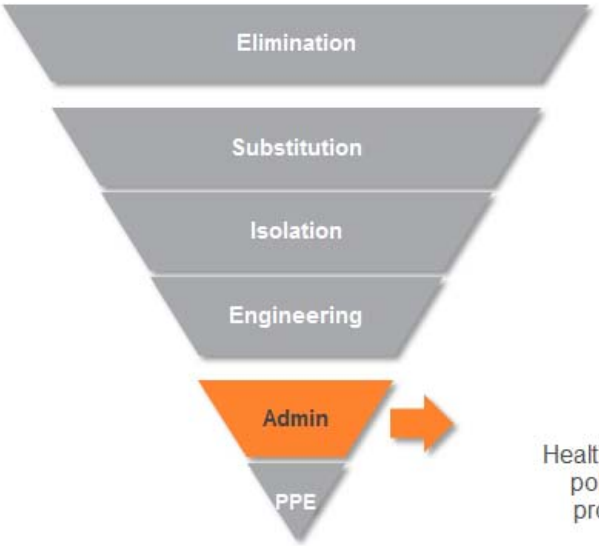


Include storing the materials on **spill pallets** or in **bunded rooms** or **areas**

Bunding is used primarily for **spill management** and minimises the risk of spilled materials **spreading** outside the containment zone or entering the **environment** through drains, waterways, soil etc.

What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.



There are a range of administrative measures to **support** the other levels of the hierarchy of controls

Health and safety policies and procedures

Safety Data Sheets

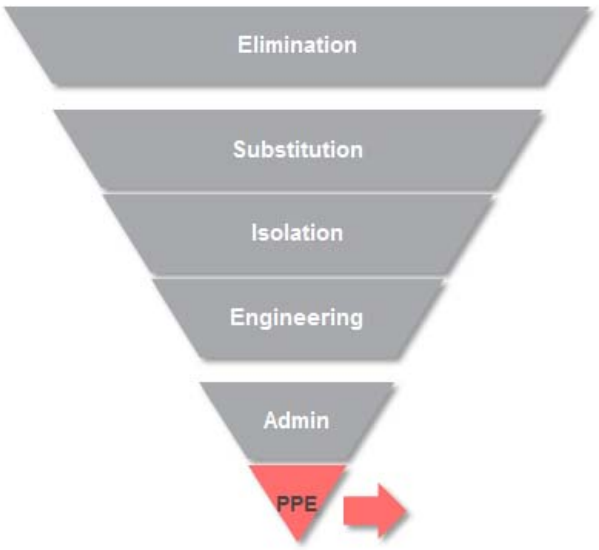
Different signs

Labels on chemicals

Range of training

What are common risk controls?

Click on each level of the Hierarchy of Controls below to find out more.



Worn to **reduce exposure** to a hazard but **does not eliminate it**

Must be **used correctly**, be **properly maintained**, and the worker must be **trained** on how to use it correctly

How do I locate and read an SDS?

Document prepared by the **manufacturer** or **supplier** of a hazardous substance that describes its **properties** and **uses**

A **legal requirement** under WHS law

Everyone in the workplace should know how to **locate**, **read** and **interpret** an SDS

SDS register will be available on site containing the SDS for **each** hazardous substance used

1. **Identification of the material/supplier**
2. **Hazard identification**
3. **Composition/information on ingredients**
4. **First aid measures**
5. **Fire fighting measures**
6. **Accidental release measures**
7. **Handling and storage**
8. **Exposure controls and PPE**
9. **Physical and chemical properties**
10. **Stability and reactivity**
11. **Toxicology information**
12. **Ecological information**
13. **Disposal considerations**
14. **Transport information**
15. **Regulatory information**
16. **Other information**

SDS

Click here to access a sample SDS for Ammonia Anhydrous.

What are the common safety signs?

You **must** follow the requirements of **all safety signs**

They are there for **your safety** and give you crucial **information** and **warnings**

Mandatory signs

Tell you what you **must** do

White with a blue circle containing an image

Danger signs

Warn of potentially life **threatening** hazards

Black and white with a red oval

Hazard warning signs

Identify **hazards** which may not be life threatening but could cause harm

Yellow and black

Prohibition signs

Tell you what you **must not** do

White with a red circle with a line through it

Emergency/safety information

Provide **emergency** or **safety** information

Green and white

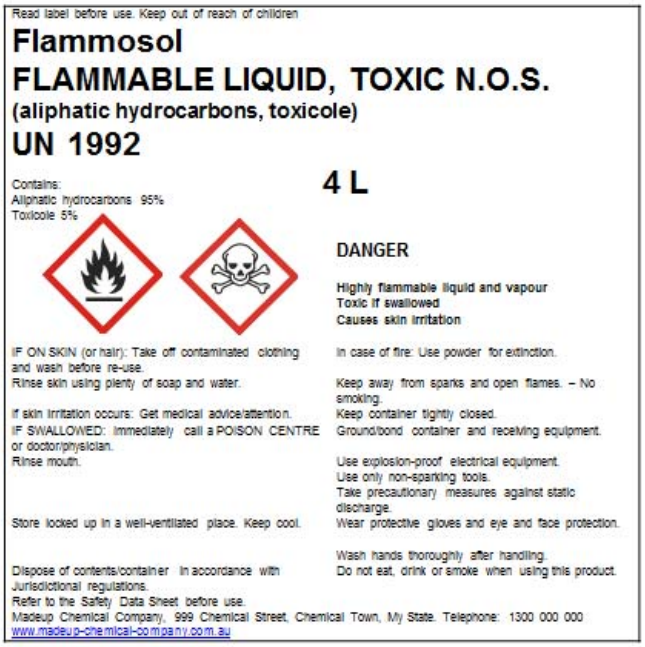
Fire signs

Provide **fire** emergency information

Red and white:

What information must be on a chemical substance label?

Labelling of Workplace Hazardous Chemicals Code of Practice



Read label before use. Keep out of reach of children

Flammosol

FLAMMABLE LIQUID, TOXIC N.O.S.

(aliphatic hydrocarbons, toxicole)

UN 1992

4 L

Contains:
Aliphatic hydrocarbons 95%
Toxicole 5%

DANGER

Highly flammable liquid and vapour
Toxic if swallowed
Causes skin irritation

IF ON SKIN (or hair): Take off contaminated clothing and wash before re-use.
Rinse skin using plenty of soap and water.

If skin irritation occurs: Get medical advice/attention.
IF SWALLOWED: Immediately call a POISON CENTRE or doctor/physician.
Rinse mouth.

Store locked up in a well-ventilated place. Keep cool.

Dispose of contents/container in accordance with Jurisdictional regulations.
Refer to the Safety Data Sheet before use.

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.

Use explosion-proof electrical equipment.
Use only non-sparking tools.
Take precautionary measures 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.

Madeup Chemical Company, 999 Chemical Street, Chemical Town, My State. Telephone: 1300 000 000
www.madeup-chemical-company.com.au

Additional information:

- Emergency phone number
- Overseas name, address and phone number of manufacturer/ supplier
- Valid website
- Reference to SDS

(Example for illustrative purposes)

Is it different for a decanted chemical?

Flammosol
FLAMMABLE LIQUID, TOXIC N.O.S.
(aliphatic hydrocarbons, toxicole)
UN 1992

(*Example for illustrative purposes*)

What type of PPE protects against substances?

Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

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Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

Protects the **eyes** from flying particles, chemicals, liquids and UV radiation

- Worn at **all times** while on site within **designated** areas
- **Comfortable**
- Not interfere with your **vision**
- Provide appropriate **protection** against the hazard

What type of PPE protects against substances?

Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

Used to protect your **hands** from hazards such as burns and chemicals

- Select the glove that is most **appropriate** for your task
- **Inspect** your gloves for any damage before using them
- **Discard** them if they are damaged or contaminated
- Store gloves in a **clean**, **dry** location

Be careful when **removing damaged** or **contaminated** gloves to ensure the substance does not come into contact with your **skin**.

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What type of PPE protects against substances?

Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

Protect your **toes** and **feet** from being burnt or scalded by corrosive substances

- **Appropriate** for your task and conditions
- Fits your foot **snugly**
- Well maintained

What type of PPE protects against substances?

Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

Protects your **body** against exposure to hazardous substances

- Must be **well-fitting**
- **Suitable** for the substances you are handling

What type of PPE protects against substances?

Depending on how you interact with the substances, you may be required to wear additional PPE to the below.

Click on each type of PPE to find out more.

Protect you against:

Oxygen deficient environments + Airborne contaminants

Common examples:

Dust masks | Half masks | Full masks | Self-contained breathing apparatus

If you are required to use **self-contained breathing apparatus**, you will need **specific training**.

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Module Summary

You should now be able to:

- Summarise the common risk controls
- Interpret information on safety signs, Safety Data Sheets and chemical substance labels
- Explain how different PPE can protect you from hazardous substances

You can now return to the home page and move on to the next module which will look at **incident and emergency response procedures**.

Module 1: Introduction and overview of the legislation

Module 2: Types of dangerous goods and hazardous substances

Module 3: CCA's risk management approach

Module 4: Common risk controls at CCA

Module 5: Incident and emergency response procedures

Module 5: Course summary

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