SUNSHINE COAST AIRPORT

Safe Storage and Handling of

Hazardous and Flammable Substances

Tenant Obligations

Contents

Contents 2
1.0 Background 3
1.1 Purpose and Scope 3
1.2 Dangerous Goods 3
1.3 Framework 3
2.0 Obligations of a Person Conducting a Business or Undertaking (PCBU) 4
2.1 Safety duties 4
2.2 Induction, information, training and supervision 4
2.3 Managing risks associated with hazardous and flammable substances 5
2.4 Obtaining Safety Data Sheets 5
2.5 Safety Signs 6
2.6 Hazardous and Flammable Substance Register 7
2.7 General Risk Control Measures 8
2.8 Separation Distances 9
2.9 Fire and Explosion Risks 10
2.9.1 Transfer of hazardous or flammable substances 10
3.0 Emergency Preparedness 11
3.1 Fire Protection and Warning Signs 11
3.2 Emergency Procedures 11
3.3 Spill Containment 11
3.4 Mobile Fuel Tankers 12
3.5 Emergency Response Plan 12
4.0 Appendices 13
Appendix A Key Terms 13
Appendix B Comparison of Hazardous Classes and Categories ADG Code / GHS 16
Appendix C Overview of Risk Assessment Process 18
Appendix D Risk Assessment Checklist 18
Appendix E Refueling Safe Work Procedure 21

1.0 Background

1.1 Purpose and Scope

The purpose of this document is to provide practical guidance about the safe storage and handling of hazardous and flammable goods on your tenancy, and ways you can meet obligations under the Work Health and Safety Act 2011. You should read this document if you are engaged in the storage and/or handling of dangerous goods.

This document also provides practical advice and recommendations for tenants to assist with WHS legislative and regulatory compliance from a broader safety perspective.

Note: In this document, the words 'must', 'requires' or 'mandatory' indicate that legal requirements exist, which must be complied with. The word 'should' indicates a recommended course of action, while 'may' indicates an optional course of action.

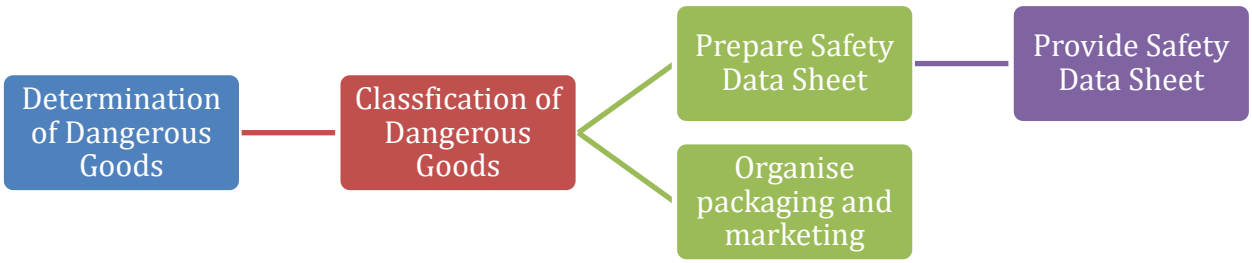
1.2 Dangerous Goods

Dangerous goods are substances capable of causing harm to people and property because of their hazardous properties. They may be corrosive, flammable, combustible, explosive, oxidising or water-reactive or have other hazardous properties.

1.3 Framework

It is the responsibility of the manufacturer of dangerous goods to make a determination that the goods are dangerous. The manufacture then assigns the dangerous goods an ADG (Australian Dangerous Goods) Code classification or a GHS (Globally Harmonised System) Code classification. The manufacturer is also responsible for providing a current SDS (safety data sheet).

Obligations of Manufacturers with regard to Dangerous Goods:



2.0 Obligations of a Person Conducting a Business or Undertaking (PCBU)

2.1 Safety duties

Workplace Health and Safety Act 2011 states that a person conducting a business or undertaking (PCBU) must ensure that a system used at their workplace for the use, handling or storage of hazardous chemicals is used only for the purpose for which it was designed, manufactured, modified, installed or supplied.

A PCBU (in this case, the tenant) must also ensure that:

- that **all** operations in regard to the use of a storage and handling system cause no harm or injury to workers and other persons at their workplace

- that sufficient information, training and instruction is given to a person who operates, tests, maintains or decommissions a hazardous chemical storage and handling system. Training may include safety features included in the design, required maintenance regimes, instruction manuals, design specifications and safe working parameters (e.g. temperature and pressure).

Tenants have duties regarding consultation, information provision, training and supervision. Tenants are also required to obtain SDS documents, prepare a register and ensure packages, transfer containers and pipework etc. are appropriately marked.

Furthermore, Tenants are obligated to manage risk at the premises by identifying hazards and implementing risk controls to satisfy their general and specific risk control duties. Tenants also have duties to have plans in place to respond to fire and other emergencies that may occur.

Additionally, there are particular duties (including but not limited to preparation of an emergency plan and a manifest, placarding and notification of Work Health and Safety Queensland), which only apply to Tenants with larger quantities of dangerous goods.

2.2 Induction, information, training and supervision

It is the tenant responsibility to ensure that all persons involved in the storage and handling of dangerous goods at the tenancy are provided with induction, information and training and supervision. This must be in a language or manner appropriate to them and relevant to the tasks undertaken and the risks associated with those tasks.

Specifically, a tenant must ensure the induction, information and training provided includes:

- nature of the hazards and properties of the dangerous goods and the processes used for the identification and control of the risks associated with the person's tasks

- purpose, use and maintenance of the measures for the control of those risks

- systems of work and the conduct of persons at the premises to the extent this affects the safe storage and handling of dangerous goods
- operation of the emergency plan for the premises and any procedures and equipment that may be required for use in the event of an emergency, and
- proper use and fitting of personal protective equipment (**PPE**).

2.3 Managing risks associated with hazardous and flammable substances

WHS Regulation section 351 – Management of risks to health or safety:

A person conducting a business or undertaking must manage risks to health and safety associated with using, handling, generating or storing of hazardous and flammable substances at a workplace.

WHS Regulation sections 32-38:

In order to manage risk under the WHS Regulation, a duty holder **must**:

a) identify reasonably foreseeable hazards that could give rise to the risk

b) eliminate the risk so far as is reasonably practicable

c) if it is not reasonably practicable to eliminate the risk – minimise the risk so far as is reasonably practicable by implementing control measures in accordance with the hierarchy of risk control

d) maintain the implemented control measure so that it remains effective

e) review, and if necessary, revise all risk control measures so as to maintain, so far as is reasonably practicable, a work environment that is without risks to health and safety.

Visitors to the tenancy **should** be properly informed about:

- the hazards they may be exposed to while on the premises
- appropriate safety measures to be applied while on the premises (eg wearing PPE), and
- what actions to take if any emergency occurs while they are on the premises.

2.4 Obtaining Safety Data Sheets

You must obtain the current version of the safety data sheet (SDS) for: dangerous goods stored and handled at your premises on or before the first time the dangerous goods are supplied to the premises, unless the exception below applies.

Manufacturers and first suppliers have an obligation to provide you with an SDS on request. If you are not satisfied with the SDS provided, raise your concerns with the manufacturer or first supplier. You may use commercially available SDS databases provided they contain the manufacturer's or first supplier's current SDS.

The SDS must be readily accessible by all workers, the emergency services authority and any other person on the premises. You should also provide workers with information or training on the purpose of SDS and how to use this document effectively.

You must not alter information in an SDS prepared by the manufacturer or first supplier. If you choose to provide additional information on the safe storage and handling of dangerous goods to which the SDS relates, this information must be consistent with the information contained in the SDS and clearly identified as being provided by the tenant.

SDS provide critical information about hazardous chemicals. For example, they include information on:

- the chemical's identity and ingredients
- health and physical hazards
- safe handling and storage procedures
- emergency procedures
- disposal considerations.

Businesses should use SDS when they assess the risks of hazardous chemicals in the workplace. There is a comprehensive guide to Safety Data Sheets located on the Safe Work Australia website.

2.5 Safety Signs

Safety signs may also be of assistance in protecting workers as well as visitors from risks associated with the dangerous goods on the premises. Safety signs are not 'instructions' but are reminders to comply with previously communicated instructions or procedures. You should provide safety signs that are readily recognisable, understandable and durable.

Safety signs should be:

- in a format appropriate for the intended audience (eg may be pictorial rather than written if the intended audience has a low level of English literacy or understanding)
- visible against background structures, and
- easily interpreted in the conditions that may prevail (e.g. low light).

See below for examples of common types of safety signs.

REGULATORY SIGN

HAZARD WARNING

EMERGENCY INFORMATION

2.6 Hazardous and Flammable Substance Register

You are required to keep a register for hazardous and flammable goods stored and handled at your premises. A register is a list of the product names of all hazardous and flammable goods you store and handled, accompanied where required by the current SDS for each item.

This Hazardous and Flammable Substance Register (of manifest quantites) and associated SDS documents will be required to be submitted to Sunshine Coast Airport annually, each February for the duration of the tenancy.

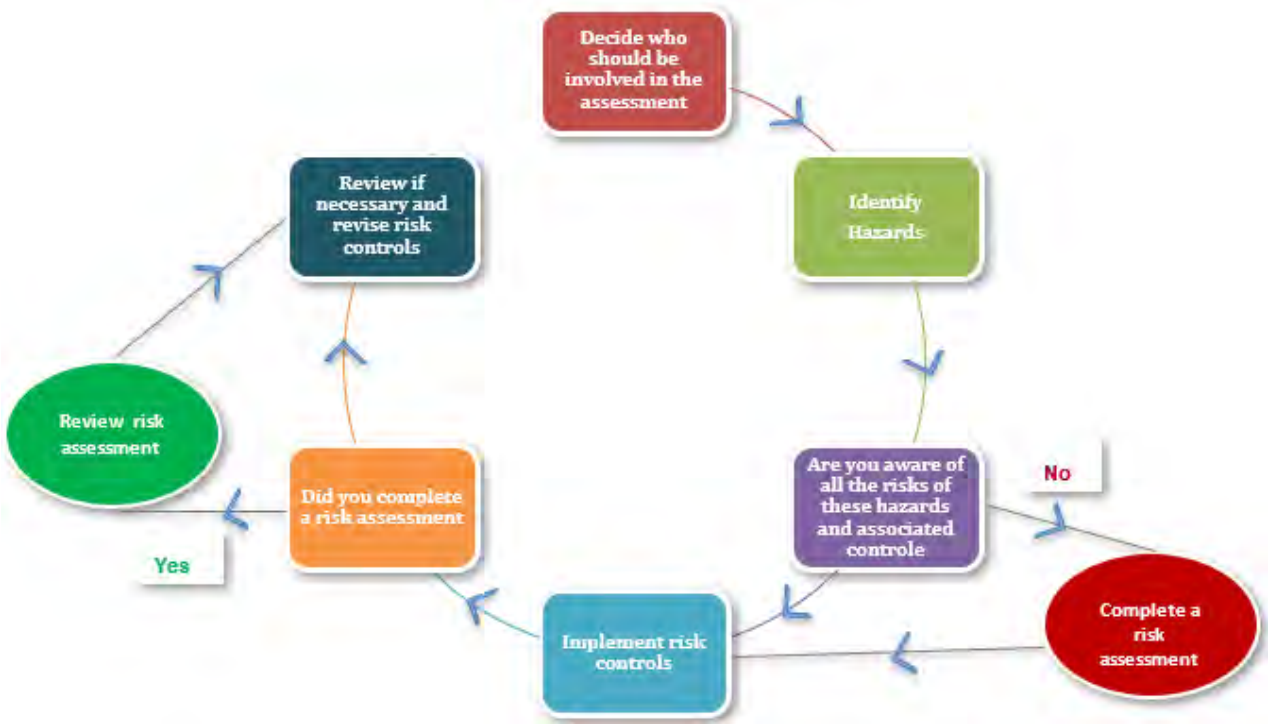
The register must be maintained to ensure it is current. You should update the register when:

- new hazardous or flammable substances are introduced to the premises
- the use of existing hazardous or flammable substances are discontinued
- the manufacturer provides a revised SDS

The register must be readily accessible by any worker and any other person who is likely to be affected by the dangerous goods on the premises. You should keep it in a central location or a copy of it in each work area.

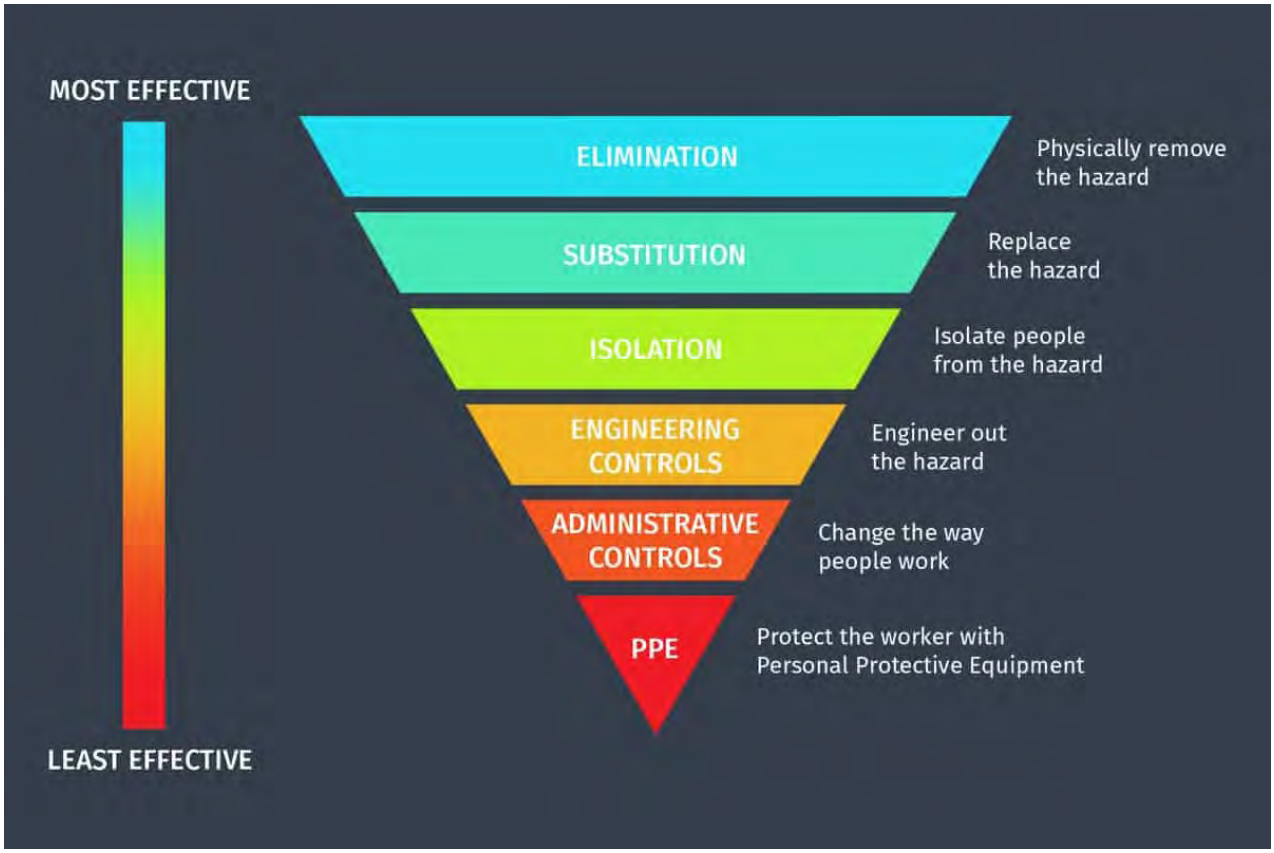
Risk Management Process

In order to manage the risks of storing and handling hazardous and flammable substances, you must decide who will be involved in the risk management process, identify the hazards at your premises, implement risk controls to eliminate or reduce the risks associated with these hazards, and review and if necessary revise these risk controls.



2.7 General Risk Control Measures

The general duties of a PCBU under WHS legislation, requires you to not only manage risks, but to manage them through the use of a particular set of risk controls. This is known as the Hierarchy of Controls:



Often it is necessary to use a combination of these controls to reduce the risk so far as is reasonably practicable.

You **must** ensure any risk control measures implemented at your tenancy are reviewed and if necessary revised:

- Before any alteration is made to a process or system of work that is likely to result in changes to risk associated with storage and handling of dangerous goods;
- Following an incident; or
- If for any other reason, the risk control measures do not adequately control the risks.

2.8 Separation Distances

For most classes of dangerous goods, guidance on safe separation distances can be found in the following standards:

- AS 1940:2017 - see Clause 4.3.1 and Tables 4.1 and 4.2
- AS 3780:2008 The storage and handling of corrosive substances – see Clauses 4.1, 4.3.1 and 4.3.2 and Table 4.1, Clauses 5.1, 5.3.2 and Table 5.1
- AS/NZS 3833:2007 The storage and handling of mixed classes of dangerous goods, in packages and intermediate bulk containers – see Clauses 6.1, 6.2 and Table 6.1, and
- AS 4332:2004 The storage and handling of gases in cylinders – See Clause 4.4.2 and Table 4.1.

The minimum separation distances suggested in these standards generally vary depending on quantity, storage container, class, placking group (or C1 combustible liquid classification), and whether packages are open or closed.

Distances can also be affected by the provision of fire walls, screen walls and vapour barriers. Barriers are often used in place of separation distances.

The guide for separation distances for flammable liquid storage tanks to security fences can be found in AS:NZ 1940-2017 Table 5.4

There is also a requirement for flammable liquids to be kept a minimum distance away from any boundary, workshop, dwelling or protected place (refer AS 1940-2017 2.2.5.2).

2.9 Fire and Explosion Risks

Key control measures for managing the risk of fire and explosion include:

- using intrinsically safe equipment
- ventilation to avoid creation of hazardous atmosphere
- substituting flammable materials for ones that are less flammable or combustible
- ensuring incompatible materials are separated or segregated
- reducing quantities of flammable and combustible materials, including items that contribute to the fire load but that are not hazardous chemicals themselves (example: wooden pallets)
- eliminating ignition sources from hazardous areas. This may include establishing a hot work permit system (see below).
- ensuring equipment used in handling hazardous chemicals is maintained in accordance with manufacturer's instructions
- good housekeeping to minimise accumulation of combustible dusts.

2.9.1 Transfer of hazardous or flammable substances

Transferring hazardous chemicals generally presents a far greater risk than for static storage. During the transfer process, the chemicals will frequently be unconfined at some stage of the transfer process that may include pouring or pumping from one container to another. Common methods for eliminating or reducing risks during transfer operations include:

- avoiding spillage or overflow, including overflow protection on equipment and receiving vessels
- providing emergency shut offs to limit the amount of hazardous chemicals released during a loss of containment
- providing a spill containment system
- reducing static electricity and vapour generation. This is particularly important for fire risk hazardous chemicals such as flammable liquids
- ensuring transfer fittings are compatible
- avoiding sources of ignition

3.0 Emergency Preparedness

3.1 Fire Protection and Warning Signs

At a tenancy where more than 100 ltrs of flammable liquids, or more than 1000 ltrs of combustible liquids are stored, or where flammable liquids are decanted, the following requirements apply:

- At least one (1) portable fire extinguisher, having a suitable rating for use with the range of materials being kept, shall be readily accessible and adjacent to the storage area. Where liquids are stored on open land, a fire extinguisher shall be provided if the liquis are decanted or transferred within 5m of the storage.

- In areas where flammable liquids are decanted within a building, a sign bearing the following sign **must** be displayed:

DANGER – FLAMMABLE LIQUID – NO SMOKING – KEEP FIRE AWAY

Note: Signs should comply with AS1319

3.2 Emergency Procedures

The extent of emergency procedures required will depend on the size and complexity of the tenancy, types and quantities of hazardous and flammable goods. As a minimum, emergency procedures should include instructions on:

- How to raise the alarm, including how to contact the appropriate emergency services
- Any actions to be taken by workers in an emergency to ensure the safety and health of all persons in the workplace to minimise risk to persons, property and the environment
- Any actions to be taken by prescribed persons such as fire wardens (e.g. how to use a fire extinguisher and/or evacuate the building)

3.3 Spill Containment

You must ensure that in each area at the premises where hazardous or flammable goods are stored or handled, provision is made for spill containment that will so far as reasonably practicable, eliminate the risk from any spill or leak of solid or liquid dangerous goods. Provision for spill containment must also be able to contain within the premises, the hazardous or flammable substances that have been spilled or leaked and any solid or liquid emmision arising from an incident.

In the case of hazardous or flammable substances contained in a tank, the spill containment for that tank must not be shared with any other dangerous goods or substances that are not compatible with the dangerous goods in the tank.

The above duties apply regardless of whether the hazardous or flammable substances are stored above ground, below ground or in a mobile tanker.

3.4 Mobile Fuel Tankers

All mobile fuel tankers primarily based airside **must** have:

- maintenance inspection testing from an independent appropriately qualified person to assess and confirm that the vehicle is fit for purpose every 2.5 years
- Airside Vehicle Permit (AVP)
- Current insurance policy

3.5 Emergency Response Plan

The purpose of the emergency plan is to plan for, and thus minimise the effects of any dangerous occurrence or near miss at a workplace resulting from handling of hazardous chemicals.

For workplaces that use, store or handle large quantities of hazardous or flammable substances, providing a copy of emergency plans and details of actions to be taken in the event of an emergency situation to neighboring tenants may assist coordinating repsonses in the event of an emergency.

Additional information regarding emergency management associated with the storage and handling of flammable hazardous chemicals is available in *AS 1940: The storage and handling of flammable and combustible liquids.*

It is the responsibility of each tenant to prepare and maintain an emergency plan including:

- Emergency procedures that include:
    - An effective response to an emergency
    - Evacuation procedures
    - Notification procedures to provide to Emergency Services
    - Medical treatment and assistance
    - Communication procedures between the person coordinating the emergency response and all other persons at the workplace
- The testing procedures and how often this is done
- How relevant workers will be provided with information, training and instruction about implementing the emergency procedures

The Tenancy Emergency Response Plan and any relevant associated documentation will be required to be submitted to Sunshine Coast Airport annually each February for the duration of the tenancy.

The emergency plan should be reviewed

- within five (5) years of its development.
- At intervals of no more than five (5) years
- If there is a change of risk at or in proximity of the workplace
- When updated information becomes available

4.0 Appendices

Appendix A Key Terms

ADG code means. The Australian Code for the Transport of Dangerous Goods by Road and Rail, as in force or remade from time to time, approved by the Transport and Infrastructure Council. The ADG code is accessible at the National Transport Commission website: www.ntc.gov.au

Article means a manufactured item, other than a fluid or particle, that is formed into a particular shape or design during manufacture and has hazard properties and a function that are wholly or partly dependent on the shape or design.

Biological monitoring means the measurement and evaluation of a substance, or its metabolites, in the body tissue, fluids or exhaled air of a person exposed to that substance or blood lead level monitoring.

Class of dangerous goods,means the number assigned to the goods in the ADG code indicating the hazard, or most predominant hazard, exhibited by the goods.

Combustible substance means a substance that is combustible and includes dust, fibres, fumes, mists or vapours produced by the substance.

Container means anything in or by which a hazardous chemical is, or has been, wholly or partly covered, enclosed or packed, including anything necessary for the container to perform its function as a container.

Correct classification means the set of hazard classes and hazard categories assigned to a hazardous chemical when it is correctly classified. *Note: Part 1 of Schedule 9 sets out when a hazardous chemical is correctly classified.*

Division of dangerous goods,means a number, in a class of dangerous goods, to which the dangerous goods are assigned in the *ADG code.*

Exposure standard represents the airborne concentration of a particular substance or mixture that must not be exceeded. The exposure standard can be of three forms:

- 8 hour time weighted average
- peak limitation
- short term exposure limit.

Flash point means the lowest temperature (corrected to a standard pressure of 101.3 kPa) at which the application of an ignition source causes the vapours of a liquid to ignite under specified test conditions.

GHS means the *'Globally Harmonized System of Classification and Labelling of Chemicals, 3rd Revised Edition'*, published by the United Nations as modified under Schedule 6 of the WHS Regulation.

Hazard means a situation or thing that has the potential to harm people, property or the environment. The GHS covers physicochemical, health and environmental hazards for hazardous chemicals.

Hazard category means a division of criteria within a hazard class in the GHS.

Hazard class means the nature of a physical, health or environmental hazard under the GHS. *Note: This includes dangerous goods.*

Hazard pictogram means a graphical composition***,*** including a symbol plus other graphical elements, that is assigned in the GHS to a hazard class or hazard category.

Hazard statement means a statement assigned in the GHS to a hazard class or hazard category describing the nature of the hazards of a hazardous chemical including, if appropriate, the degree of hazard.

Hazardous area means an area in which:

- an explosive gas is present in the atmosphere in quantity that requires special precautions to be taken for the construction, installation and use of plant, or
- a combustible dust is present or could reasonably be expected to be present in the atmosphere in a quantity that requires special precautions to be taken for the construction, installation and use of plant.

Hazardous chemical means a substance, mixture or article that satisfies the criteria for a hazard class in the GHS (including a classification referred to in Schedule 6 of the WHS Regulation), but does not include a substance, mixture or article that satisfies the criteria solely for one of the following hazard classes:

(a) acute toxicity—oral—category 5
(b) acute toxicity—dermal—category 5
(c) acute toxicity—inhalation—category 5
(d) skin corrosion/irritation—category 3;
(e) serious eye damage/eye irritation— category 2B
(f) aspiration hazard—category 2
(g) flammable gas—category 2
(h) acute hazard to the aquatic environment—category 1, 2 or 3
(i) chronic hazard to the aquatic environment—category 1, 2, 3 or 4
(j) hazardous to the ozone layer.

Hazchem Code means '*Hazchem Code*' under the *ADG code*. Also known as the *Emergency action code.*

Label means written, printed or graphical information elements concerning a hazardous chemical that is affixed to, printed on, or attached to the container of a hazardous chemical.

Manufacture includes the activities of packing, repacking, formulating, blending, mixing, making, remaking and synthesizing of the chemical.

Mixture means a combination of, or a solution composed of, two or more substances that do not react with each other.

Placard means a sign or notice:

a) displayed or intended for display in a prominent place, or next to a container or storage area for hazardous chemicals at a workplace
b) that contains information about the hazardous chemical stored in the container or storage area.

Placard quantity means the quantity referred to in Schedule 11 of the WHS Regulation, table 11.1, column 4 for that hazardous chemical. *Note: This schedule has been replicated in* Appendix D of this code*.*

Precautionary Statement means a phrase prescribed by the GHS that describes measures that are recommended to be taken to prevent or minimise the adverse effects of exposure to a hazardous chemical or the improper handling of a hazardous chemical.

Substance means a chemical element or compound in its natural state or obtained or generated by a process:

- including any additive necessary to preserve the stability of the element or compound and any impurities deriving from the process, but
- excluding any solvent that may be separated without affecting the stability of the element or compound or changing its composition.

Supply includes selling or transferring ownership or responsibility for a chemical.

Appendix B Comparison of Hazardous Classes and Categories ADG Code / GHS

ADG class/category, packing group	Equivalent GHS class and category as classified under the WHS Regulation
Class 1 explosives Unstable explosives (Goods too dangerous to be transported) Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6	 Unstable explosives Division 1.1 Division 1.2 Division 1.3 Division 1.4 Division 1.5 Division 1.6
Class 2 gases	Gases under pressure Note: The GHS has 4 categories which correspond to the transport condition under the ADG Code. They are: • Gas under pressure – Compressed gas • Gas under pressure – Liquefied gas • Gas under pressure – Refrigerated liquefied gas • Gas under pressure – Dissolved gas
Division 2.1	Flammable gases category 1 Flammable aerosols category 1 and 2
Division 2.2	Oxidising gases category 1 Gases under pressure not otherwise specified
Division 2.3	Acute toxicity: Inhalation categories 1-4 (Note: category 4 only up to LC_{50} of 5000 ppmV) Skin corrosion / irritation categories 1A-C
Class 3 PG I	Flammable liquids category 1
Class 3 PG II	Flammable liquids category 2
Class 3 PG III	Flammable liquids category 3
Division 4.1 Self Reactive substances types A-G [1]	Self reactive substances type A-F Type G are not classified under WHS Regulation as hazardous chemicals.
Division 4.1 PG II	Flammable solids category 1
Division 4.1 PG III	Flammable solids category 2
Division 4.2 PG 1	Pyrophoric liquids category 1 Pyrophoric solids category 1
Division 4.2 PG II	Self heating substances category 1
Division 4.2 PG III	Self heating substances category 2
Division 4.3 PG I	Substances and mixtures which in contact with water emit flammable gases, category 1
Division 4.3 PG II	Substances and mixtures which in contact with water emit flammable gases, category 2
Division 4.3 PG III	Substances and mixtures which in contact with water emit flammable gases, category 3
Division 5.1 PG I	Oxidising solids, oxidising liquids, category 1
Division 5.1 PG II	Oxidising solids, oxidising liquids, category 2
Division 5.1 PG III	Oxidising solids, oxidising liquids, category 3
Division 5.2 Organic Peroxides types A-G [1]	Organic peroxides type A-F. Type G are not classified under WHS Regulation as hazardous chemicals.

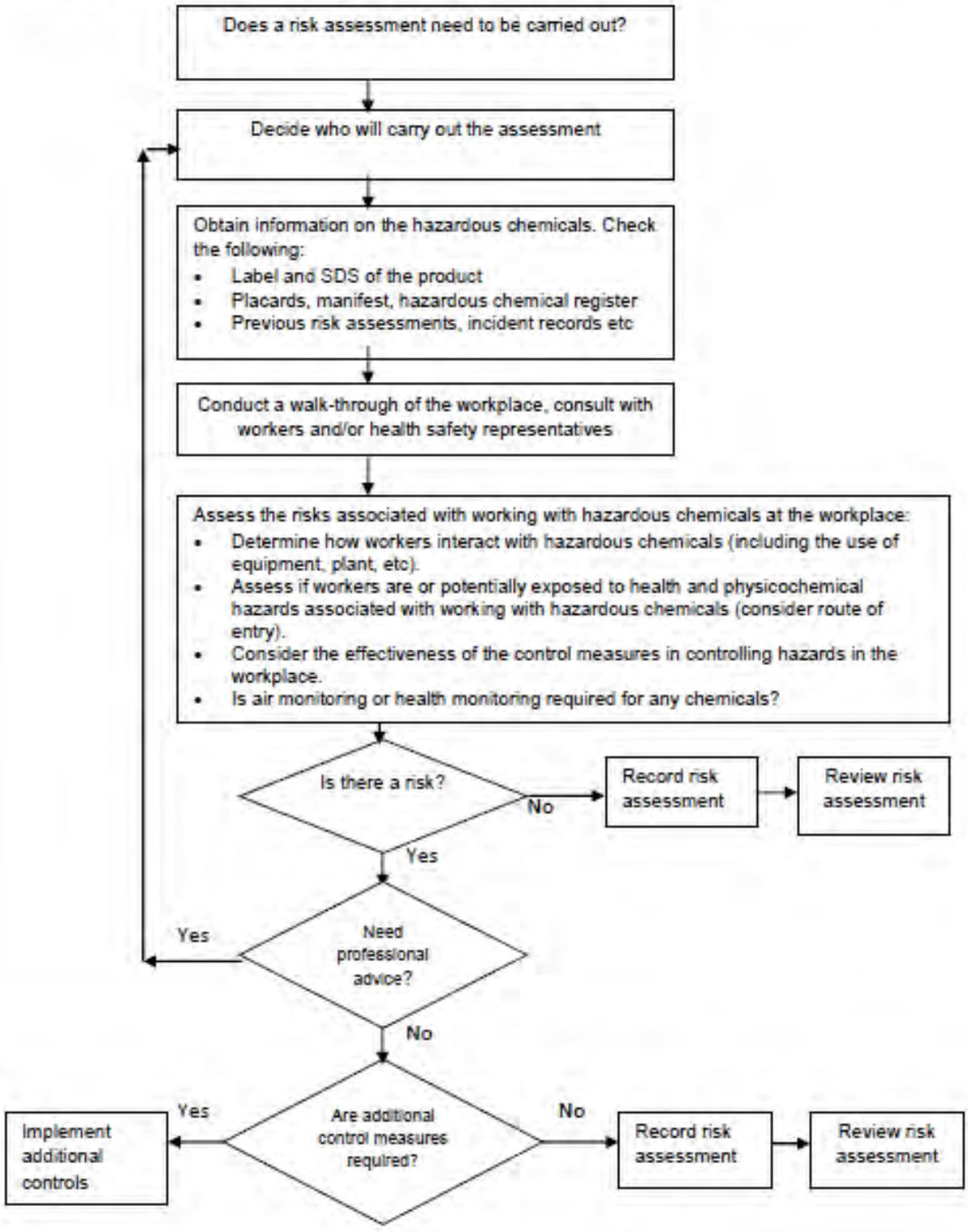
Division 6.1 PG I	Acute toxicity: Oral category 1 Acute toxicity: Dermal category 1 Acute toxicity: Inhalation category 1 (dusts, mists, vapours)
Division 6.1 PG II	Acute toxicity: Oral category 2 Acute toxicity: Dermal category 2 Acute toxicity: Inhalation category 2 (dusts, mists, vapours)
Division 6.1 PG III	Acute toxicity: Oral category 3 Acute toxicity: Dermal category 3 Acute toxicity: Inhalation category 3 (dusts, mists, vapours)
Division 6.2	No equivalent GHS class and not classified under WHS Regulation as hazardous chemicals.
Division 7	No equivalent GHS class and not classified under WHS Regulation as hazardous chemicals.
Class 8 PG I	Skin corrosion category 1A
Class 8 PG II	Skin corrosion category 1B
Class 8 PG III	Skin corrosion category 1C Corrosive to metals category 1
Class 9 [2]	Class 9 dangerous goods are not classified under the WHS Regulation.
Goods too dangerous to be transported	Self reactive substances type A [1] Organic peroxides type A [1] Unstable explosives
C1 combustible liquids (flash point 60-150°C)	Flammable liquids category 4 (flash point 60-93°C)

[1] Depending on packing method, self reactive substances and organic peroxides type A will either be classified under the ADG code as 'Goods too dangerous to be transported' or their comparative divisions (4.1 or 5.2).

[2] Class 9 dangerous goods include ecotoxicological hazard classes and categories, and are not mandatory under WHS Regulation. They may be used to supplement the GHS classification of a substance or a mixture or to comply with other environmental legislation.

Appendix C Overview of Risk Assessment Process

An overview of the process for the assessment of health risks arising from the use of hazardous chemicals in the workplace is provided below.



Appendix D Risk Assessment Checklist

Questions	Yes	No
1. Does a risk assessment need to be carried out?	☐	☐
2. Has it been decided who should carry out the risk assessment?	☐	☐
3. Have all the hazardous chemicals in the work place been identified? Has a hazardous chemical register been produced?	☐ ☐	☐ ☐
4. Has information about the hazardous chemicals been gathered? *(refer to labels, SDS, placards and relevant Australian Standards for the type of hazardous chemical)*	☐	☐
Q. 5 – 9 should be answered for each hazardous chemical or each process where hazardous chemicals are used in the workplace		
5. Have you checked other records associated with the hazardous chemical? *(Consider previous assessments, monitoring records, injury or incident records, induction training, task-specific training etc)* If 'Yes', are there any hazardous chemical previously assessed as 'high' or as 'significant risk'? Specify the risk(s):	☐ ☐	☐ ☐
6. Does the chemical have health hazards? *(consider potential acute / chronic health effects and likely route of entry)*	☐	☐
7. Does the hazardous chemical have physicochemical hazards?	☐	☐
8. Does the hazardous chemical have an exposure standard? (refer to the *Workplace Exposure Standards for Airborne Contaminants*)	☐	☐
9. Do workers using the hazardous chemical require health monitoring? (refer to *Part 7.1, Division 6 and Schedule 14 of the WHS Regulation*) If 'Yes', air monitoring may be required.	☐	☐
10. Are workers, or can workers be potentially, exposed to hazardous chemicals at the workplace, including by-products and waste? For each hazardous chemical or group of hazardous chemicals in the work unit, find out: • Is the substance released or emitted into the work area? • Are persons exposed to the chemical? • How much are the persons exposed to and for how long? *Air monitoring may be required to determine exposure* • Are there any risks associated with the storage and transport of the chemical? Have all hazardous chemicals in the workplace been identified? If not, repeat Q.2 for the next hazardous substance.	☐	☐
11. Are control measures currently in the workplace well maintained and effective in controlling the hazards? If 'No', take appropriate action	☐	☐
12. What are the conclusions about risk? Only answer 'Yes' to one conclusion. • Conclusion 1: Risks are not significant		

Questions	Yes	No
• Conclusion 2: Risks are significant but effectively controlled If you answer Yes to conclusion 1 or 2, go to Q.14. • Conclusion 3: Risks are significant and not adequately controlled • Conclusion 4: Uncertain about risks If you answer 'Yes' to conclusion 3 or 4, go to Q.13.		
13. Have actions resulting from conclusion about risks been identified? • Seek expert advice • Requires appropriate control measure • Requires induction training • Requires on-going monitoring • Requires health monitoring • Requires emergency procedures and first aid		
14. Has the assessment been recorded?	☐	☐

Appendix E Refueling Safe Work Procedure

Rationale

A person who performs vehicle, equipment or machinery refueling must take such precautions and exercise such care as is practicable to protect the safety and health of persons and prevent damage to property and/or the environment, from the risks associated with site refueling.

Instructions

- Quantities over 1,000 litres of Class 3 petroleum products are subject to Dangerous Goods Transport requirements.
- Category 4 Flammable liquids (Combustible Liquids (e.g., diesel), are to be treated as Category 3 (PG III) Flammable Liquids for the purposes of placarding when the combined aggregate quantity of Combustible Liquids and packaged Class 3 dangerous goods exceeds 1,000 litres.

SEQUENCE	HAZARDS	PROCESS	PRECAUTIONS
SPECIFICATIONS AND CONSTRUCTION	Standards	Tankers and tanks for the road transport of fuel must conform to all regulations.	Tankers and tanks must be of an approved design and be registered to carry fuels. Tanks must have a current compliance plate attached. **Fuel must not be carried in other than approved tanks.** Emergency stops should be placed at accessible positions. Check seals and clamps to ensure that hoses do not leak in use.
	Fall of persons	Walkways and ladders should be constructed to allow safe access and movement on tanks. Fall protection should be provided where a person could fall from a height of 2 metres or more.	
	Movement of tank	Removable tanks must be provided with a means of safely securing the tank to the vehicle.	
	Pumps and hoses	Electric pumps must be an intrinsically safe type approved for handling flammable liquids and be fitted with remote emergency stop switches. Hoses and fittings must be of a design approved for use with fuels. Hose masts and nozzle holders should be used where fitted to keep hoses clean and dry	

SEQUENCE	HAZARDS	PROCESS	PRECAUTIONS
TRANSPORT	Fire Risk	Tanks for fuel transport are to be secured and earthed to vehicle chassis. Ensure that containers are earthed to prevent static build up during transport. Do not convey fuel in passenger compartment of vehicles. Fuel containers are to be secured from movement or accidental damage.	Ensure earth strap is attached. Label all containers clearly with the contents of the container. **No smoking or ignition sources**. Avoid carriage in enclosed vehicles where possible. Suitable fire extinguisher must be carried on vehicle.
	Placarding of Vehicles	Adequate means of ventilation is to be provided (e.g. roof ventilator, grill vent etc.)	Emergency spill kit (including PPE) must be carried with placarded loads.
	Emergency Information	Vehicles carrying fuel in excess of the placarding quantity for the Class and Packing Group must carry the appropriate required placards and class labels. An Emergency Procedures Guide (EPG) for the products carried on the vehicle must be carried in the passenger compartment of the truck.	
HANDLING	Inhalation of vapours	Decanting and mixing of feil should be carried out in a ventilated area	No smoking or ignition sources Eliminate static electricity sources
	Fire risk	Provide earthing straps to eliminate buildup of static electricity	Wear PVC gloves, apron and eye protection at all times
	Dry skin, dermatitis or irritation to eyes	Avoid direct contact with petrol or fuels on skin Avoid splashing of fuel, and avoid getting petrol or fuel in eyes	

SEQUENCE	HAZARDS	PROCESS	PRECAUTIONS
SITE REFUELING	Fire Risk	Eliminate ignition sources in vicinity of refueling operations.	**No smoking or ignition sources**.
		Do not leave pump or fuel hose unattended during refueling.	
		Restrict entry to site to persons directly involved in refueling operation.	
		Do not overfill fuel tanks and clean up spills or leaks immediately.	
		Avoid contact with fuels and oils during refueling.	**Wear eye and hand protection**
SPILLS AND LEAKS	Fire and explosion risk	Eliminate all ignition sources –pumps, etc.	Notify emergency services immediately of any spill or leak which may present a risk to persons or property.
		Advise emergency services (Police, Fire Brigade) immediately giving details of type of emergency, exact location, any casualties, etc.	**Consider personal safety.**
		Secure site and prevent entry of persons not involved in emergency.	**Attend to problem only if safe to do so.**
	Harmful contact	Consider evacuation of area if risk of fire or explosion is possible.	Wear PPE commensurate with scale or type of leak or spill.
		Follow instructions given by emergency response personnel.	Use mats over drains, and bund around area to contain spillage.
		Avoid contact with skin and eyes and remove contaminated clothing.	Do not dispose of in landfill.
		Avoid inhalation of vapors, work upwind if possible, or use respirator.	
	Environmental risk	Prevent entry of fuels and oils into drains or waterways. Absorb spill with oil-sorb or pads, and place into sealable container.	

Please observe these precautions in areas where these procedures are carried out:






Warning: even small quantities of flammable liquid can create a vapour cloud that can travel considerable distances and flash back to its point of generation if it meets a source of ignition. This is particularly the case when decanting or if the liquid is spilt.

Note:

The information contained within this Refuelling Safe Work Procedure is provided for use by Sunshine Coast Airport tenants as a guide where a safe work procedure for fuel spills and leaks does not exist within a tenancy. Please check current WHS legislation, regulations and applicable codes of practice before using / implementing this document.