

# Industry Standard **Surface Coating Industry**

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# CODE OF ETHICS

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## OBLIGATION OF THE PAINTING CONTRACTOR

- To provide a service to our industry to the fullest extent.
- To protect, decorate and preserve the means and materials of the most progressive and efficient type.

## OBLIGATION TO THE CLIENT

- To conduct our business to the highest professional standards.
- To faithfully carry out all contracts
- To develop through study, the highest degree of technical competence and knowledge in our industry.
- To present a favourable image of our industry to the public.

## OBLIGATION TO OUR FELLOW ASSOCIATION MEMBERS

- To encourage the free exchange of knowledge and ideas.
- To meet with fellow members and promote all aspects of this code.

## OBLIGATION TO OUR EMPLOYEES

To provide opportunities for training, career and economic security in a progressive manner to all those that would apply themselves.

## OBLIGATION TO OUR ASSOCIATION

- To promote and support the Association objectives.
- To establish and maintain the highest level of respect and goodwill with all segments of the industry.
- To avoid any action which will bring discredit to our Association.



# 1.0 INTRODUCTION

## 1.1 WHAT IS THE PURPOSE OF THIS INDUSTRY STANDARD

This Industry Standard (the Standard) has been developed to provide straight-forward practical advice to contractors that provide painting services in the commercial and residential sector and to assist them in good commercial behaviour and in preventing injuries.

## 1.2 WHO SHOULD READ THIS STANDARD?

This Standard should be read by:

- Contractors that provide painting services in commercial and residential sector; and
- Customers that engage a contractor to provide painting services.

## 1.3 SCOPE OF THIS STANDARD

This Standard is not a legislative document and compliance to this Standard is strictly voluntary.

The Standard has been prepared for the surface coating industry.

This Standard does provide practical advice on good commercial behaviour and how to effectively and systematically develop and implement prevention strategies to reduce the risk of injury.

This Industry Standard is supported by the Victorian WorkCover Authority (VWA).

Adoption of principles outlined in this Standard is strongly encouraged by the Master Painters Victoria and Tasmania.

## 1.4 WORK HEALTH AND SAFETY LAWS

At the time of publication, the Victorian Government have not adopted the national model workplace health and safety laws. They currently acknowledge the concept of national harmonisation and follow the principles of best practice legislation.

At present, VWA continue to reinforce the existing Victorian occupational health and safety laws and regulations. Therefore, Victorian workplaces should refer to the state's compliance codes, Codes of Practice and other guidance materials for information about how to comply with these occupational health and safety laws.

These resources are specifically designed to inform stakeholders as to how they can satisfy the current Victorian occupational health and safety legislation. National Workplace Health and Safety codes do not completely support all areas of the Victorian occupational health and safety laws and regulations.

Tasmania has adopted the Model WHS Act and Regulations as of 1st January 2013 and with that adoption, the Codes of Practice developed by SafeWork Australia have been adopted as well. There are some transitional arrangements on the WHS Regulations, however, they do not affect the painting industry.

For more information on the OHS compliance framework for Victoria, go to <http://www.vwa.vic.gov.au/laws-and-regulations/occupational-health-and-safety>. For information on WHS Compliance for Tasmania go to: [http://worksafe.tas.gov.au/laws/whs\\_act](http://worksafe.tas.gov.au/laws/whs_act).

For stakeholders interested in developing a comparison between the key provisions of the Model WHS laws and the Victorian OHS laws, the Australian Industry Group have provided a guide for assistance at <http://www.aigroup.com.au/ohs/nationalohsreview/>

# 2.0 DEFINITIONS

FOR THE PURPOSE OF THE STANDARD ONLY, THE DEFINITIONS ARE:

<b>WORKPLACE</b>	A place, whether or not in a building or structure, where employees or self-employed persons work.
<b>HAZARD</b>	A situation or thing that has the potential to harm people, property or the environment. This covers physicochemical, health and environmental hazards for hazardous chemicals.
<b>RISK</b>	In relation to any hazard, the likelihood and consequence of that hazard causing injury or harm.
<b>PAINTING</b>	To coat, cover or decorate something with paint. This applies to all buildings and premises in Victoria and Tasmania.
<b>SAFETY DATA SHEET (SDS)</b>	A document that contains important safety related information about chemicals used in the workplace. (Sometimes referred to as Material Safety Data Sheets MSDS)
<b>FALL</b>	Under WHS a PCBU must prevent a fall from one level to another that may result in an injury.
<b>PCBU</b>	Person conducting a business or undertaking. Generally an employer or self employed person but also includes volunteer organisations.
<b>WORKER</b>	Under WHS a worker is an employee, contractor or employees of the contractor or volunteer.

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## 3.0 STATEMENT OF POLICY ON FAIR TRADING

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All painters in Victoria and Tasmania agree to comply with all the relevant laws and regulations regarding Fair Trading.

To this end in accordance with this Standard our stated policy is:

Requirements of law:

- We shall adhere to the Competition and Consumer Act 2010 and state legislation policies.
- We shall act and make decisions in accordance with this commitment to Fair Trading.
  - » Australian Consumer Law and Fair Trading Act 2012
  - » Competition and Consumer Act 2010

### REQUIREMENTS IN THIS POLICY:

- We shall not make false claims of membership of this association.
- We shall not engage in unconscionable conduct.
  - » A person must not, in trade or commerce, in connection with the supply or possible supply of goods or services of a kind ordinarily used for personal, household or domestic purposes to a purchaser, engage in conduct that is, in all the circumstances, unconscionable.
- We shall not engage in a conduct that is misleading or deceptive or is likely to mislead or deceive customers.
  - » A person must not, in trade or commerce, engage in conduct that is misleading or deceptive or is likely to mislead or deceive.
- We shall not engage in misleading conduct in relation to goods.
  - » A person must not, in trade or commerce, engage in conduct that is liable to mislead the public as to the nature, the manufacturing process, the characteristics, and the suitability for their purpose or the quantity of any goods.
- Misleading conduct in relation to services.
  - » A person must not, in trade or commerce, engage in conduct that is liable to mislead the public as to the nature, the characteristics, and the suitability for their purpose or the quantity of any services.
  - » We shall not engage in false representations in relation to goods and services.

A person must not, in trade or commerce, in connection with the supply or possible supply of goods or services or in connection with the promotion or advertising by any means of the supply or use of goods or services:

- (a) falsely represent that goods are of a particular standard, quality, value, grade, composition, style or model or have had a particular history or particular previous use; or
  - (b) falsely represent that services are of a particular standard, quality, value or grade or have had a particular previous use; or
  - (c) falsely represent that goods are new; or
  - (d) falsely represent that a particular person has agreed to acquire goods or services; or
  - (e) represent that goods or services have a sponsorship, approval, performance characteristics, accessories, uses or benefits they do not have; or
  - (f) represent that any person has a sponsorship, approval or affiliation that the person does not have; or
  - (g) make a false or misleading representation with respect to the price of goods or services; or
  - (h) make a false or misleading representation concerning the availability of facilities for the repair of goods or of spare parts for goods; or
  - (i) make a false or misleading representation concerning the place of origin of goods; or
  - (j) make a false or misleading representation concerning the need for any goods or services; or
  - (k) make a false or misleading representation concerning the existence, exclusion or effect of any condition, warranty, guarantee, right or remedy; or
  - (l) make a false or misleading representation about the production, manufacture, preparation or supply of any goods; or
  - (m) make a representation which is unnecessary for the reasonable care and maintenance of any goods; or
  - (n) make a representation that is false, misleading or deceptive in any material particular.
- We shall not use unfair contracts or use terms and conditions that may be considered unfair to the consumer.
    - » "Preventing unfair terms in consumer contracts" Guidelines on unfair terms in customers contracts, Consumer Affairs Victoria, and Consumer Affairs and fair trading Tasmania.
    - » Implied conditions: every time you make a sale you have entered a contract that includes implied conditions, which you must adhere to and cannot change. Implied conditions are set by law and provide a basic guarantee of the goods' saleability. Implied



conditions mean that goods and services must:

- be fit for their intended purpose
  - be of merchantable quality
  - match any sample or description given by you.
- » Refunds: under the Act, refunds apply equally to sale, discount and clearance items and you must not mislead customers about their refund rights.

For more information, refer to:

<http://www.accc.gov.au/consumers/contracts-agreements/unfair-contract-terms>

<http://www.consumer.vic.gov.au/businesses/fair-trading/contracts/unfair-contract-terms>

**MANAGING THE RISK OF NON-COMPLIANCE:**

All businesses, regardless of their size, should develop a compliance policy and program to ensure that they adhere to the Act. Your compliance policy should cover three central components of the Act to ensure that you do not:

- mislead or deceive customers through false advertising or promises
- subject customers to unfair terms in their contracts
- treat customers in an unconscionable way.

**SETTING UP A COMPLIANCE PROGRAM:**

To be effective, your compliance program should include:

- a senior staff member responsible for implementing the policy and program
- training for staff so that they understand their responsibilities under the Act
- staff who are committed to customer service that complies with the Act
- a clear complaint handling and dispute resolution system for customers.

**IMPROVING CUSTOMER SERVICE:**

Use customer feedback surveys.

- Set up a complaints handling system with an easy process that enables customers to make complaints and staff to respond to them promptly.
- Train your staff to handle complaints constructively.
- Review your complaints regularly, to ensure you don't have an ongoing problem.

Good complaints handling can enhance your business by:

- improving your awareness of and responses to fix systemic problems
- increasing the number of satisfied customers
- increasing customer loyalty and word of mouth referrals.

See also:

<http://www.consumer.vic.gov.au/businesses/fair-trading/complaint-handling>

Please note: any person who makes a complaint in good faith to the Director of Consumers Affairs or VCAT is protected.

**CONSUMER AFFAIRS VICTORIA**

Victorian Consumer & Business Centre  
113 Exhibition Street Melbourne 3000.

<http://www.consumer.vic.gov.au/businesses/fair-trading/>

Consumer Affairs Victoria Helpline: 1300 55 81 81

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## 4.0 HEALTH AND SAFETY LEGISLATION

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### THE (VICTORIAN OCCUPATIONAL HEALTH AND SAFETY ACT 2004) AND TASMANIAN WORK HEALTH AND SAFETY ACT 2012

- Set out the key principles, duties and rights in relation to occupational (Work) health and safety
- The general nature of the duties imposed by the Acts means that they cover a very wide variety of circumstances, and provide considerable flexibility for a duty holder to determine what needs to be done to comply.

### THE VICTORIAN OCCUPATIONAL HEALTH AND SAFETY REGULATIONS 2007 AND TASMANIAN WORK HEALTH AND SAFETY REGULATIONS 2012

- They are specific to how a duty, imposed by the relevant Act, must be performed and prescribe methodologies to support the Act (e.g. requiring licences for specified activities)

#### COMPLIANCE CODES

- They provide practical guidance to duty holders (Victoria)
- Compliance with the Code means compliance with the Act or Regulation
- Some content in a Compliance Codes is not mandatory, and a duty holder may choose to use some other way to achieve compliance.

#### CODES OF PRACTICE (VICTORIA)

- These were developed under previous legislation but are seen as providing guidance as to how hazards can be identified and controlled.

#### CODES OF PRACTICE (TASMANIA)

- Under WHS, SafeWork Australia has developed a number of codes of practice to provide guidance to PCBU's as to how they can manage their obligations across a broad range of areas.
- Tasmania has also developed its own Codes of Practice relevant to industries that the Tasmanian government believes needs additional support.

For further information on the Victorian Act and Regulations, go to:

<http://www.vwa.vic.gov.au/laws-and-regulations/acts-and-regulations>

For Tasmania go to:

[http://worksafe.tas.gov.au/industry\\_and\\_safety](http://worksafe.tas.gov.au/industry_and_safety)

There is also the Victorian Dangerous Goods Act 1985 and the Dangerous Goods Regulations 2012 that apply to workplaces. This legislation assigns duties to all persons who handle or store dangerous goods.

For Tasmania, the legislative framework differs from Victoria as the new WHS regulations also cover dangerous goods under the umbrella of "Hazardous Chemicals" so there is no need to consider other legislation.

Both Victoria and Tasmania have separate regulations regarding the transport of dangerous goods. In most instances, these regulations will not apply to painting industry but do place a restriction on the quantity that a person can carry in a vehicle for commercial purposes.

### 4.1 LEGISLATIVE FRAMEWORK

There is a set of health and safety legislation that applies to every individual and every workplace in Victoria and Tasmania.

There are some minor differences in the Tasmanian WHS and Victorian OHS Acts and Regulations and where relevant, these differences will be highlighted.

### 4.2 DUTIES SET OUT IN THE ACT

The (Work) Occupational Health and Safety Acts impose duties on people within the workplace to ensure workplace safety.

#### DUTIES OF THE EMPLOYER (PCBU)

An employer must, so far as is reasonably practicable, provide and maintain for employees of the employer a working environment that is safe and without risks to health.

#### DUTIES OF A SELF-EMPLOYED PERSON (PCBU)

A self-employed person must ensure, so far as is reasonably practicable, that persons are not exposed to risks to their health or safety arising from the conduct of the undertaking of the self-employed person.

#### DUTIES OF EMPLOYERS TO OTHER PERSONS

Ensure that persons other than employees of the employer are not exposed to risks to their health and safety arising from the conduct of the undertaking of the employer.

#### DUTIES OF PERSONS WHO MANAGE OR CONTROL WORKPLACES

A person who (whether as an owner or otherwise) has, to any extent, the management or control of a workplace must ensure, so far as is reasonably practicable, that the workplace and the means of entering and leaving it are safe and without risks to health.

### 4.3 WHAT DOES THIS MEAN FOR YOU?

In the context of the surface coating industry, both the consumer and the service provider have a duty of care and have responsibilities under the (Work) Occupational Health and Safety Act.

Some of the consumer responsibilities are:

- To ensure that plant/equipment they provide or allow to be used by the service provider is safe and complies with the relevant requirements (e.g. hand tools, ladders, electrical power outlets and leads);
- If in control of the service provider's workplace (e.g. building the service provider is painting) ensure that the workplace is safe, without risks to health and has all the required safety features (e.g. safe access and egress, amenities, animal restraint, and safe access to heights is any work is to be performed above ground level); and
- Ensure that the service provider's method of work is in line with the health and safety requirements laid out in the relevant Act and Regulations.

The service provider's responsibilities are:

- To ensure a safe system of work - identify hazards and ensure they are addressed in line with the Regulations and relevant standards to prevent injury.

The degree of responsibility varies depending on who is 'in control of the workplace'. It is in the interest of all parties to clearly document who is responsible and discuss so that it is understood and agreed.

#### EXAMPLE 1:

John the painter, is painting the exterior of Susan's house. Susan lives in the house and is home while the painting of the work is taking place. Susan is seen to be 'in control' of John's workplace while the painting is being completed. John has primary responsibility for his safe work practices. He should also ensure that he does not injure Susan or other persons as a result of his work.

#### EXAMPLE 2:

John the painter, has been engaged as a subcontractor by Best Homes that is building Susan's house. Best Homes is in control of the site until the building works are complete and the property is 'handed over' to Susan. John has primary responsibility for his safe work practices.

### 4.3 WHAT DOES 'SO FAR AS IS REASONABLY PRACTICABLE' MEAN?

The test for what is reasonably practicable takes account of the expected standard of behaviour of a reasonable person in the duty-holder's position and their ability influence factors.

No single matter determines what is reasonably practicable in relation to ensuring health and safety. The following are some examples of questions that can be asked to assist in the decision making:

#### HOW LIKELY IS IT THAT THE RISK COULD RESULT IN INJURY?

How likely is it to happen? How often are people exposed? Has it happened before (or was there a near-miss)? Has it happened in other workplaces in similar circumstances? How skilled or experienced are the workers who perform the task?

#### HOW SERIOUS WOULD THE INJURY BE?

What level of injury is possible? (For example, superficial injury, reversible injury such as strains, lacerations, bruising etc. or irreversible injury such as amputation, death or even multiple deaths.) Clearly this has a bearing on what it is reasonable to expect to be done to remove or mitigate risk. It is never reasonable to allow a fatality or a serious injury risk.

#### HOW AVAILABLE, SUITABLE, EFFECTIVE AND COSTLY ARE THE MEASURES?

Is a solution already available? Is it suitable to this application (or can it be made suitable)? Can a solution be developed? Is it effective in eliminating or reducing the likelihood or degree of harm from a hazard or risk; without introducing new and potentially higher risks? What would be the cost?

The cost is only **ONE** of the factors to be taken into account in deciding what needs to be done to meet the legal obligation – it **MUST NOT** be the determining factor as to whether or not risk must be controlled.

In WHS, the cost has to be grossly disproportionate to the risk to be considered a relevant matter in determining reasonably practicable.

Another relevant factor is the state of knowledge. The state of knowledge about a particular hazard and ways to eliminate or reduce it becomes the industry standard if others in the same or similar industries have eliminated or controlled a risk. It is expected that the individuals and organisations within that industry are aware or should make themselves aware of the industry standards.

### 4.4 GUIDANCE AVAILABLE TO YOU

There is information in the Regulations, Compliance Codes and standards that can allow you to fulfil your health and safety obligations.

These can be accessed via Victorian WorkCover Authority website:

[www.vwa.vic.gov.au/](http://www.vwa.vic.gov.au/) and for Tasmania [http://worksafe.tas.gov.au/laws/whs\\_act](http://worksafe.tas.gov.au/laws/whs_act)

See Appendix 1 for a list of some resources that may be useful.

This Standard will also provide you with practical guidance in relation hazard management and with some basic documentation that can be adopted to meet your needs.

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## 5.0 BASICS OF RISK MANAGEMENT

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### 5.1 THREE STEPS TO MANAGING SAFETY:

**1. Find the hazards** – Use the information in this Standard to assist you. Talk to your employees and other people in the industry. Look at the injury records and find anything that can cause harm. To ensure all potential hazards are identified, the job should be separated into activities that follow the sequence of the job. The activities and associated information can be documented using the Hazard Management form (see the Tools and Forms section of this Standard).

**2. Assess the risk** – Are there hazards that pose a greater risk than others? Work out which hazards are the most serious and deal with them first. For each identified hazard, identify a Risk Rating.

Risk Ratings are used to prioritise the hazards/tasks to which you should focus the risk control measures. They are also used to determine what is an acceptable risk, so far as is reasonably practicable. In many instances, Medium or even Significant risk ratings will be acceptable as the consequence cannot be reduced any further.

E.g. Falling from a 3m ladder has the potential to cause a fatality, therefore all work from a ladder will be a medium risk or higher. The key in this instance is to address the likelihood of a fall

**3. Fix the problem** – Aim to eliminate the risk altogether. If this can't be achieved, work towards reducing the risk. The Risk Class is to be used to determine the level of controls required to eliminate the risk. In order of effectiveness, following the hierarchy of controls:

- Remove the hazard completely e.g. paint ceiling rose at ground level before it is installed on a high ceiling, remove risk of electrocution by using compressed air driven tools
- Separate people from the hazard e.g. guards on power tools, effective barriers and edge protection
- Use an engineered control e.g. use machinery to lift heavy objects
- Change work practices e.g. training in lifting techniques or two person lift
- Use personal protection (PPE) e.g. hearing or eye protection

Note: PPE should be the last control to protect people when all else fails as it is the least reliable and most variable control.

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## 6.0 HAZARD MANAGEMENT

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The preparation of the substrate and the subsequent application of surface coatings within the industry are generally carried out on-site. It is impossible to clearly identify all of the situations in which workers may be exposed to possible risks. However, there are broad risk groups that are common to this type of work. These include:

- manual handling;
- working at heights;
- slips, trips and falls;
- working in restricted spaces;
- UV exposure;
- Chemicals and substances;
- Lead Paint Management;
- Asbestos Awareness
- Working alone;
- Compressed air;
- Electrical.

The next section of this Standard will address each hazard individually and provide you with practical guidance on how to control the associated risks.





## 6.1 MANUAL HANDLING

Manual handling is the greatest injury incurred in the workplace. Approximately 50% of injuries are a result of manual handling.

Hazardous manual handling involves any of the following:

- Repetitive or sustained application of force (pushing, pulling, lifting, carrying);
- Repetitive or sustained awkward posture (stooping, kneeling, working with bent wrist, working with both or one arm above shoulder level);
- Repetitive or sustained movement (movement of the arm while painting);
- Application of high force (lifting, pushing, pulling or carrying heavy objects);
- Exposure to sustained vibration (holding and operating a power tool that vibrates); and
- Handling of loads that are unstable, unbalanced or difficult to hold (e.g. carrying a large sheet of plasterboard or a ladder).

When considering the probability of injury as a result of poor manual handling, also consider the environmental factors:

- Is the work being performed in hot (> 30°) or cold (<15°) weather?
- Is there radiant heat, such as from the sun?

- Is there high humidity?
- Are you working in a tight space area, therefore having to assume awkward postures?

### WHAT INJURIES CAN MANUAL HANDLING CAUSE?

While not all manual handling tasks will cause injury, hazardous manual handling can lead to many serious conditions, including:

- muscle sprains and strains
- back injuries
- soft-tissue injuries to the wrists, arms, shoulders, neck or legs
- abdominal hernias
- chronic pain.

Collectively, these conditions are known as musculoskeletal disorders (MSDs).

### HOW TO REDUCE THE RISK OF MUSCULOSKELETAL DISORDERS?

Consider the following:

Modify work practices to eliminate manual handling entirely or find ways to minimise the more common lifting and carrying tasks by means such as:

- Use of trolleys and other mechanical aids to transport your tools and materials;
- Design of work space and work method, and selection of tools
  - » Set up a workbench for preparatory work so that the work you are doing is stable and at an appropriate height.
  - » Ensure that hand tools are designed in a way that allows a natural wrist position, not bent or twisted.
  - » Consider the size of brushes and rollers for comfort on your wrists, arms and shoulders.
  - » Use appropriate tools for the type of painting you are doing. For example, use an extension handle for the roller instead of holding your arms above shoulder.
  - » When considering the type of vehicle to use for work, consider your tools and materials and ensure adequate space in the vehicle and ease of loading/unloading. E.g. van or a station wagon with false floor and slide out trays.
  - » When loading and unloading tools and materials into/from a vehicle, consider ease of access and the weight to the items you are loading/unloading. Will you need to assume awkward posture to retrieve them? Place heavier items and those you use most frequently closer to the access point to prevent the need to lift with an awkward posture.

- » Ensure you take regular rest breaks.
- » Work muscles and ligaments by gentle stretching movement prior to performing manual handling tasks involving heavy lifting or high force activities.
- Ensure you are practicing effective manual handling techniques at all times.

## 6.2 PREVENTION OF FALLS.

Falls from even moderate heights can cause permanent and debilitating injuries including fractures, spinal cord injury, concussions and brain damage. Falls from height are a common cause of death in workplaces across Victoria and Tasmania.

30% of fatalities were a result of from falls below 2m however the risk of serious injury or death from a fall increases significantly if you are working at heights over 2m.

While falls can occur in all industries, they are common in construction and the most frequent origins of falls were ladders, roofs, and platforms.

Typical falls that cause death and injury include those resulting from:

- Using unsafe or incomplete scaffolds;
- Inappropriate ladders/ladder use such as unsecured ladders, over-reaching, getting on or off from roofs;
- Falling from or through roofs;
- Falls into holes, pits or shafts; and
- Accessing mezzanine areas.

You must identify all potential fall hazards to comply with the Prevention of Falls part of the OHS Regulations or the Falls Regulations in WHS. Also under WHS, there are specific requirements under high risk construction work that require a SWMS for where there is the potential of a fall of greater than 2m.

### TASKS THAT MAY INVOLVE THE RISK OF A FALL INCLUDE:

- work done on any equipment or structure being constructed, inspected, tested, maintained, repaired or cleaned, including preparing surfaces and painting;
- tasks on a fragile, slippery or potentially unstable surface;
- using equipment to gain access to an elevated level or to work at an elevated level;
- work on a sloping surface where it is difficult to maintain balance; and
- work near an unprotected edge or in close proximity to a hole or pit into which a person could fall.

### SOME TYPICAL EXAMPLES OF WORK PRACTICES THAT INVOLVE THE RISK OF A FALL INCLUDE:

- work on a roof, painting or roof restoration, with no guarding or fall protection;
- working from the bucket of a front-end loader, or from a pallet lifted by a forklift;
- no guarding, railing or signage around holes or pits;
- setting up a ladder on a slippery or uneven surface without securing it to prevent it slipping;
- use of ladders rather than purpose designed trestles and planks.
- using a cherry picker without a secure lanyard and safety harness connecting the worker to the basket.

### RECOMMENDED TRESTLE

There are many common solutions for preventing falls in the workplace, which can be readily implemented.



Work through this list in the following order to control the risk of falls at your workplace. In many instances, a combination of approaches will result in the best solution.

#### 1. DO THE WORK ON THE GROUND OR ON A SOLID CONSTRUCTION.

e.g. Remove the structures and paint them on ground level or use extensions poles.

#### 2. USE A PASSIVE FALL PREVENTION DEVICE.

e.g. Elevating work platform, scaffolding or guard railing.



**3. USE A WORK POSITIONING SYSTEM**

e.g. Industrial rope access system or travel restraint system.

**4. REQUEST A FALL ARREST SYSTEM**

e.g. Industrial safety net, catch platform or safety harness and lanyard system.



Where a fall arrest system is used, an emergency procedure including rescue procedure must be established.



**5. USE A FIXED OR PORTABLE LADDER**

e.g. Use an Australian Standard approved portable ladder.

A ladder is used for gaining access to areas above or below the ground, or other levels not provided with permanent access. It is important to realise that there are limits to the safe use of a ladder. Most accidents involving ladders occur because these limits are exceeded.

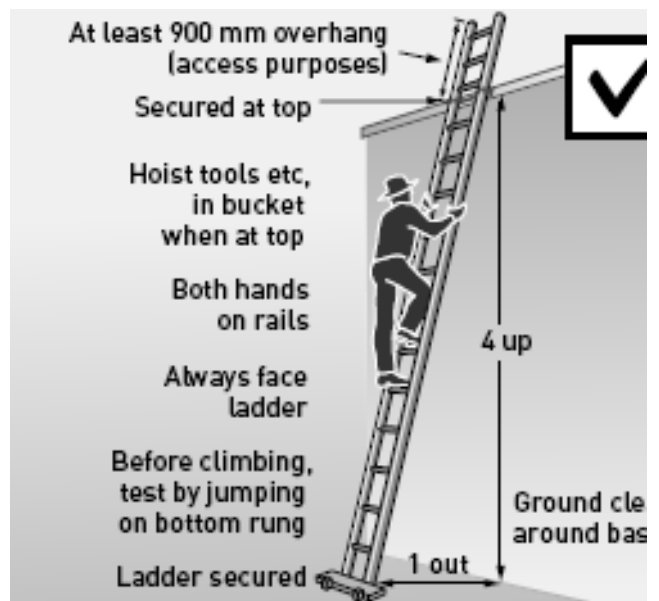
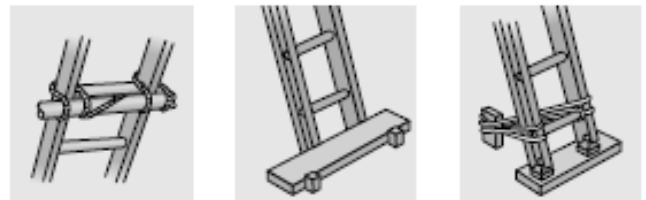
When a ladder, as any other product, complies with the Australian Standard, there is a sticker or a sign attached to the ladder to state which standard it complies with. Ensure you check that the ladder you are using is compliant with the relevant standard.

**PORTABLE LADDERS SHOULD COMPLY WITH THE REQUIREMENTS OF THE RELEVANT AUSTRALIAN STANDARDS:**

- AS/NZS 1892.1 – 1996 Portable ladders Part 1: Metal
- AS 1892.2 – 1992 Portable ladders Part 2: Timber,
- AS/NZS 1892.3 – 1996 Portable ladders Part 3: Reinforced plastic
- AS/NZS 1892.5 – 2000 Portable ladders Part 5: Selection, safe use and care.

When using portable ladders, the following points should be observed:

- All ladders should be adequately supported at the base.
- Wet grass with soft soil beneath it or a makeshift support under one side is not acceptable. If the surface is too soft to support the ladder, use a plank or board under the feet of the ladder to stop them from sinking.
- Depending on the degree of unevenness, a plank or board under one or both feet may be adequate, providing the plank(s) are stable, i.e. much wider than the thickness, and large enough not to sink into the ground on one side. If the ground is uneven, use a purpose-made device to steady the ladder. Do not erect a ladder on a slippery surface; its stability depends on the friction at the base of the ladder.



## EFFECTIVE WAYS OF SECURING A LADDER

- A ladder should never be 'walked' by the person standing on the ladder. The word 'walked' above describes the action of a person standing at the top of a ladder who, by moving his body, causes the bottom of the ladder to lift the ends of the stiles alternately to cause the ladder to move. This is a very dangerous practice, since the ladder is not under proper control.



Avoid leaning over the side of the ladder

- Set the ladder at a slope of approximately 4 in 1. For every metre in height, the ladder should extend out from the vertical surface at the base by about 250 mm. This will minimise the chance of the ladder falling backward or the bottom of the ladder sliding away from the wall, and is the most comfortable and safe slope for climbing and working from the ladder.
- One ladder, one person, and it is recommended that one should always have three points of contact on the ladder at all times. This means either two feet and one hand, or one foot and two hands on the ladder when ascending, descending, or working on the ladder. To achieve this, always carry your tools in a tool belt, holster or pouch, not in your hands. Never attach a power tool to the side of a ladder when it is not in use.
- Beware of contacting power lines when putting a ladder into position. If you must work near power lines, including supply lines into a building, have them de-energised, or insulated with 'tiger tails', before placing the ladder. In addition, any ladder used near power lines should be non-conducting, such as timber (without wire reinforcement, or with the wire reinforcement recessed and insulated) or reinforced plastics, but **NOT aluminium or any metal**.
- Never climb or work from higher than the third rung from the top of the ladder. The ladder should be long enough to provide at least one metre (1m) of solid support beyond the height of the task. Where it is necessary to get onto or off at the top of the ladder, it should extend at least 1m above the level being accessed.

**As a general rule, a ladder should be used as a means of access and not a place of work. If it is necessary to work from a ladder, do not climb higher than a position where the worker's shoulders are level with the top of the stiles. This allows for a secure hold to be maintained while working.**

- Only use a ladder as a place of work if you can grasp the ladder near waist height, and only for tasks which allow you to hold the ladder with one hand. Ladders should be placed in a manner that permits you to face towards

both the ladder and the task without leaning over the side of the ladder. When working from a ladder, **always work within easy arm's reach from the ladder**. Keep your belt buckle within the ladder stiles. This minimises the possibility of overbalancing and falling off. Extra care should be taken when painting eaves and fascia boards, as the ladder is usually below the work height.

- Ladders should not be used outdoors when strong winds are blowing. If their use cannot be avoided under these conditions, the ladder must be firmly secured by tying it off or by other acceptable methods. While the ladder is being secured, it must be held firmly by another person.
- Ladders are to be fitted with rubber (or similar non-slip material) feet to prevent slipping.
- Ladders shall be firmly secured, or tied off. If tied, the ties should be attached to the stiles of the ladder, **not the rungs**. While the ladder is being secured, it should be held firmly by another person. If it is not practicable to tie off or secure a ladder for whatever reason, the ladder must be 'footed' at the base by another person with both hands on the stiles to prevent any movement or overturn of the ladder.

### 6.2.1 EXTENSION LADDERS

Extension ladders such as rope and pulley types are suitable for accessing high areas such as rooftops and tall trees. One specialist design is the pole ladder, which has a curved top rung to give the ladder stability when used for accessing a pole or round column. To erect a rope and pulley ladder, place the unextended ladder into position and then extend it a few rungs at a time, using the rope. Always ensure that the latching hooks are properly engaged after each extension.

Some extension stepladders made before August 1996 used spring clips to retain the extended rear legs. While they may be used safely when the top of the extended ladder rests against a wall, **they are not safe if the top of the ladder is above the wall – when a person steps off or onto the ladder the clips may disengage and allow the ladder to fold. These extension stepladders must never be used in this configuration.** Such ladders do not conform to the requirements of AS/NZS 1892.1: 1996.

Long ladders and heavy ladders (greater than 20 kg) should only be handled by two persons.

### 6.2.2 STEP LADDERS

Stepladders should only be used in the fully open position. They should be positioned on a stable and non-sloping surface, with no tendency to wobble. They should be made as rigid as possible by the use of side braces and cross braces.

Some specialised types of stepladders have a working platform for standing on at their top; this platform should be surrounded by a handrail. Platform ladders should only be used for handling items that are located at a height compatible with the height of the platform.



### 6.2.3 MULTIPURPOSE LADDERS

Where used as a single ladder the length of the front edge of the stile, including feet shall not exceed 9.0 meters for industrial ladders, and 5.0m for domestic ladders.

Where used as a stepladder the length of the front edge of the stile including feet to the centre of the hinge pivot-pin shall not exceed 5.1 meters for industrial ladders, and 2.4 meters for domestic ladders.

Where used as a stepladder, the slope of the front and rear stiles shall not be less than 65 degrees and not greater than 80 degrees above the horizontal.

Where used as a work platform, the slope of the front and rear stiles shall not be less than 65 degrees and not greater than 80 degrees above the horizontal.

- Fully enclosed slip resistant footwear should always be worn when using ladders.
- Ladders should be stored under cover, with adequate support to prevent sagging.
- Ladders should be inspected at regular intervals and any defects or deterioration repaired before further use

### 6.3 SLIPS AND TRIPS AND FALLS

The WHS legislation has especially identified falls from one level to another as a key duty of the employer or PCBU to prevent.

Slips and trips and falls can result in sprains and strains, as well as cuts, bruises, fractures and dislocations.

Slipping occurs when a person's foot loses grip with the walking surface. The most common causes of slips are slippery floor surfaces (e.g. highly polished, wet or greasy) and inappropriate footwear.

Tripping occurs when a person is walking and one of their feet "catches" unexpectedly on an object. Most of the time, the objects that people trip on are small and unobtrusive such as cracks in the floor, changes in floor levels and electrical leads. However trips are also common in fast-paced work, especially in crowded conditions as well as in poorly lit areas.

Many slips and trips can easily be prevented, and most solutions cost very little.

#### 6.3.1 FLOORS AND GROUND SURFACE

- Those in control of the worksite should fill in potholes, level out footpaths and cover holes.
- Ensure good lighting where floors are uneven and cannot be readily fixed
- Ensure floor surfaces are level (even when the type of flooring changes), clean, clear and dry.

- Do not leave things that obstruct narrow paths and stairs.
- Secure or remove carpets and rugs and any other flooring that lifts, such as drop sheets.
- Ensure appropriate footwear for the task being carried out.

#### 6.3.2 STEPS, STAIRS AND LADDERS

- Those in control of the work site should repair worn or sloped steps. If cannot be repaired, install a temporary ramp.
- Provide and use handrails or guardrails on all platforms.
- Consider installing temporary ramps in areas where trolleys and equipment are used to limit the need to push, pull and carry up steps - and ensure the slope of the ramp is no more than 1 in 8 (a vertical rise of 1 meter over a horizontal distance of 8 meters).
- Before stepping onto portable wheeled steps, engage their brakes or retract their wheels.

For more information, go to <http://www.vwa.vic.gov.au/safety-and-prevention/injury-hotspots-statistics-and-solutions>

#### 6.3.3 HOUSEKEEPING AND CLEANING

- Regularly tidy up and clean the worksite.
- Ensure all spills, whether liquid or powder, are cleaned up immediately (using appropriate spill kits as appropriate).
- Work out where leaks and spills are coming from and fix them.
- Place 'slippery floor' signs nearby when spills are being cleaned or the floor is wet, and prevent people from accessing the area.
- Ensure adequate storage and space for all items needed for work – don't leave items in walkways.
- Keep work areas free of clutter, waste and off-cuts and ensure that obstacles such as empty drums or paint containers are not left lying around.
- Always use the closest power point and tape cords out of the way to prevent tripping hazards.
- Use retractable power leads.

#### 6.3.4 HIDDEN HAZARDS

- Ensure good lighting in all work areas and in walkways and stairwells using portable lights if necessary.

### 6.4 UV RADIATION

Australia has the highest incidence of skin cancer in the world with more than 434,000 people treated for the disease every year. At least one out of every two Australians will require treatment in their lifetime for various forms of skin cancer.

Outdoor workers have a higher risk of skin cancer than many other workers due to long periods exposed to ultraviolet (UV) radiation from direct sunlight and UV rays reflected from nearby surfaces such as concrete.

UV radiation is the wavelength of sunlight that can damage the skin. The level of UV radiation varies depending on the time of the year and the proximity to surfaces such as concrete and metal which can reflect and scatter UV radiation.

In Victoria and Tasmania, UV radiation is most intense during the middle of the day from September to April (11 am to 3 pm during daylight saving and 10 am to 2 pm at other times). On a clear summer's day (i.e. January), it can take only 10 to 15 minutes for skin damage to occur.

## 6.4.1 PROTECTION

### WHAT FORMS OF SUN PROTECTION ARE MOST EFFECTIVE?

The most effective way of reducing UV exposure is to use a combination of protection methods. In order of effectiveness, following the hierarchy of controls, they are:

- Re-organising work to avoid the UV peak of the day.
- Working in the shade (including setting up your own).
- Wearing appropriate protective clothing i.e. clothing covering as much exposed skin as possible, clothing, hats and sunglasses.
- Applying sunscreen.

### RE-ORGANISING WORK

Where reasonably practicable avoid being outside in the middle of the day for long periods. Try to:

- Minimise the amount of outdoor work.
- Move jobs undercover or create cover over a work area.
- Complete outdoor tasks in the early morning or late in the day.
- Share outdoor and indoor work to minimise individual exposure.

### USING SHADE

Where work has to occur outside for extended periods, assess the location of this work, proximity to reflective surfaces, such as concrete or light coloured roofing materials, and the availability of natural shade from surrounding structures or trees.

If there is no natural shade, have a physical barrier to UV radiation by erecting temporary shade structures, if reasonably practicable. Examples of shade structures are:

When choosing material for providing shade, and when selecting clothing and hats for sun protection, SPF 30+ is recommended.

**NOTE:** Outdoor workers are exposed to UV radiation both directly from the sun and indirectly as it is reflected or scattered from surrounding surfaces such as concrete, glass, metal surfaces (such as steel decks and roofing materials), sand and large bodies of water. You are therefore potentially exposed to UV radiation from the sun, even when working in the shade or under overhead protection and should continue to wear sun protection (protective clothing and sunscreen) in the shade for maximum protection.

### PROTECTIVE CLOTHING

The levels of UV protection provided by clothing increases with the density of the fabric's weave and darker colours absorb more UV radiation than lighter colours of the same fabric.

When selecting clothing:

- Choose clothing that covers as much skin as possible.
- Refer to the UPF rating, which should be on the label, and choose clothing with the highest rating. Close-weave fabric with a UPF of 30+ or greater offers excellent protection and would suit most applications. Where fabric does not have a UPF rating, the rule of thumb is that UV radiation will penetrate if light can be seen through it.
- Consider appropriate fit and comfort. Sun protection garments are available in lightweight, comfortable fabric.
- Ideally sun protection clothing should consist of long sleeve shirts with a collar or hood and long trousers. Where this level of protection is not reasonably practicable, shirts with sleeves at least to the elbow and shorts at least to the knee would be a lesser standard alternative.

### HATS

On sites where safety helmets (hard hats) are mandatory, additional sun protection is needed during outdoor work to protect face, ears and neck. Various sun protection accessories are available for attaching to helmets, such as broad brims or Legionnaire covers with peak and flap at the back and sides (pictured below).

On sites where safety helmets are not required, select a hat with a broad brim (8 to 10cm), pictured below. Wearing a canvas hat with an 8cm brim, for example, protects the face, ears, neck and helps protect the eyes. Legionnaire style caps also provide excellent UV protection.



Hats should be made from a close-weave fabric of UPF 50+ to provide sufficient protection. Note that a hat will only protect the face from direct sunlight. It will not stop exposure from reflected or scattered UV radiation.

**SUN GLASSES**

Eyes are also susceptible to sun damage and need protection.

Choose close-fitting, wrap-around style sunglasses (or sunglasses with side shields) that comply with Australian Standard AS/NZS 1067: 2003 – Sunglasses and fashion spectacles. Refer to the label and select sunglasses offering “UV protection” and have an “EPF 10” rating.

For tasks where safety glasses are required, either tinted or clear safety glasses would provide adequate sun protection, if the type of lens is specified for outdoor use and complies with Australian Standard AS/NZS 1337 – Eye protectors for industrial application.

**SUNSCREEN**

Never rely on sunscreen alone to protect against UV exposure. Sunscreen is not a “block-out” and it is still possible for some UV radiation to get through to cause skin damage.

Sunscreen provides a level of protection for areas of skin that is not covered by sun protection clothing and it should be used in combination with other methods of protection previously mentioned. No sunscreen offers 100 per cent protection and may lead to sun damage if workers are outside for long periods.

For best results with sunscreen:

- Select a type labelled “broad spectrum SPF 30+ and water resistant” for maximum protection.
- Apply liberally 20 minutes before going outside to ensure it is absorbed by the skin. A thin application will reduce the protection level by up to a half.
- Reapply every two hours to clean, dry skin, or more frequently if perspiring or in contact with water.

Various forms of sunscreen are available – e.g. cream and gel – and in tubes, roll-on and spray packs. Some may be more suitable than others for individuals. An alternative is “zinc cream” for exposed areas such as the nose.

Do not forget to apply protection to lips using either SPF 30+ lip balm or zinc cream.

People with a natural sun tan also need to apply sunscreen. A tan does not provide any significant protection from UV exposure.

**6.4.2 EARLY DETECTION**

If you work in the sun you should check your skin often and look for spots that are new or have changed colour, size or

shape. You should see a doctor as soon as possible if you notice anything unusual.

**NOTE:** Having regular skin checks to detect skin cancer is not an alternative to using sun protection.

**6.5 CHEMICAL SUBSTANCES**

Chemicals used in the painting industry have become safer over time; however the hazards are still significant. Chemical hazards can vary from dermatitis, burns and flash fires through to cancer detected many years after exposure. It is not only paints, thinners, strippers and cleaning products that must be considered, it is also dusts that are created from work activities. Chemicals are classified according to their properties.

The Global Harmonised System of classification and labelling of hazardous chemicals has been formally adopted by Tasmania as part of the WHS and in Victoria it is referred to in the legislation. By the end of 2016, all hazardous chemicals will be required to be classified and labelled as per GHS. This also includes the MSDS’ (SDS).

As the GHS is slowly adopted, new safety instructions and warnings will be introduced on packaging as well as new icons. Some of these icons are familiar but others are not.

GHS covers all Hazardous Chemicals under the one title but then distinguishes them as either exhibiting Health, Environmental or Physical Hazards. These hazards are the same as the classes used in Victoria as Dangerous Goods or Hazardous Substances. For simplicity, we will use the Victorian descriptors.

**Dangerous Goods** are materials that have physical or chemical effects that can be deadly or seriously damage property and the environment. Dangerous goods are classified on the basis of immediate physical or chemical effects – such as fire, explosion, corrosion and poisoning – on property, the environment or people. Dangerous goods used at the site may include:

- explosives;
- flammable liquids, such as petrol, kerosene, turps and flammable paints;
- corrosives, such as hydrochloric acid;
- oxy/acetylene welding sets; and
- LPG.

Dangerous Goods are labelled with symbols on labels that specify the properties of the substances. For example:



The symbols refer to the main danger of each class of dangerous goods.

It is important that you know which goods produce toxic gas, which are highly flammable, which are dangerous when wet, or which are dangerous when they come into contact with air.

To mitigate the risk of injury as a result of dangerous goods, the following must be addressed:

- Transport of Dangerous Goods;
- Storage of Dangerous Goods; and
- Handling of Dangerous Goods.

**Hazardous Substances** are materials used or created in the workplace that have potential to harm human health, either from acute, immediate exposure effects such as irritation of eyes, skin or respiratory system or poisoning or chronic long-term effects such as cancer, chronic organ damage and allergic responses.

Many substances are both hazardous substances and dangerous goods, and in these cases precautions must be taken to ensure there are no short or long term effects.

Chemical safety requires a thorough, technical approach, especially to ensure the subtle and hidden hazards do not lead to catastrophic results.

A substance is defined as hazardous if:

- it is listed on the national Hazardous Substances Information System (<http://hsis.safeworkaustralia.gov.au>) and the concentration of the substance or its ingredients equals or exceeds the listed concentration cut-off levels, or
- it meets the criteria set out in the national Approved Criteria for Classifying Hazardous Substances (<http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/ns2004criteriaforclassifyinghazardous>).
- or meets the criteria set out in Version 3,4 or 5 of the GHS with some modifications issued by SafeWork Australia

Hazardous substances can be solids, liquids, or gases, and when used in the workplace, they are often in the form of fumes, dusts, mists and vapours.

Examples of hazardous substances include:

- **acute toxins** such as lead and cyanide,
- substances harmful after repeated or **prolonged exposure** such as methylene chloride,
- **corrosives** such as hydrochloric acid and caustic soda,
- **irritants** such as ammonia, welding fumes, cement
- **sensitising agents** such as isocyanates and epoxies, and

- **carcinogens** (cancer causing substances) such as benzene and asbestos.

## 6.5.1 MANAGING CHEMICALS

### STEP 1

Identify all chemical substances you store/use/transport (list the substances using the sample register shown in Appendix 5).

Substances can be identified by checking:

- Labels of containers;
- Purchasing documents;
- Any existing Safety Data Sheets.

### STEP 2

#### OBTAIN AND REVIEW SAFETY DATA SHEETS.

A safety data sheet provides basic information about the chemical including:

- Whether the substance is hazardous or not
- Health hazard information
- Precautions for safe use of the substance
- Details about the substance's chemical and physical properties
- The names of ingredients and their proportions
- First aid information
- Manufacturer's and importers details, including an Australian address and contact number.

You can obtain the safety data sheets from the manufacturer or supplier of the chemical. Sometimes the retailers will be able to provide you with an SDS, however more often than not you will need to contact the manufacturer and request a copy of the more up-to-date SDS (they are reviewed every 5 years).

It is a good idea to research before purchasing a product. That would allow you to establish:

- How safe it is;
- If a safer product that can be used for the job;
- If a safer form of the product is available, e.g. ready to use as opposed to a concentrate eliminating the need to mix or dilute;
- You have appropriate safety measures in place or whether additional measures are required.

### STEP 3

#### CHECK AND ENSURE CONTAINERS ARE LABELLED AND IDENTIFIED

Labels and package markings are used to identify a product and provide relevant information to the user so that the product can be used safely.

Check the labels of the products as you purchase them to see if the product is a dangerous good, a poison, or hazardous. You must ensure you implement safety measures as required.

By law containers MUST remain labelled. If decanting, you must label the new container with a label that states the name and the primary hazards of the product. If you are not able to produce such labels, DO NOT STORE OR TRANSPORT substances in decanted containers other than for immediate use.

### **HOW TO PREVENT INJURIES AND ENVIRONMENTAL DAMAGE ASSOCIATED WITH DANGEROUS GOODS AND HAZARDOUS SUBSTANCES**

If you have identified any Dangerous Goods amongst the chemical substances you use/store/transport, you must identify and document in your register:

- The name of each Dangerous Good;
- The class and subsidiary risk and packing group of each of the dangerous good;
- A summary of the hazards identified in the safety data sheet for each of the dangerous goods.

To mitigate the risk of injury or environmental damage, consider and implement the following measures:

- Consider substituting the dangerous goods with other goods that have a lower risk associated with their storage and handling. Examples of substitution are the use of:
  - » cleaning with a detergent instead of a chlorinated or volatile solvent;
  - » a combustible liquid such as diesel rather than a flammable liquid that is harder to ignite instead of petrol and kerosene; and
  - » a dangerous good with a higher Packing Group number.
- Ensure the quantity of dangerous goods kept at any one time is kept to a minimum.

### **FOLLOW SAFETY DATA SHEET INSTRUCTIONS**

Where the label or SDS for a dangerous good or hazardous substance specifies measures and/or equipment to be used for the storage and handling of the dangerous goods then you should adopt those measures or use that equipment. In adopting the measures, consider the work you intend to perform, the quantity of the chemical to be used, the environment in which it will be used and the time to which you or others may be exposed to the chemical. Some control measures may say "wear a respirator" which would be inappropriate if you are performing a light touch up with an aerosol spray.

### **STORAGE AND HANDLING OF PACKAGES**

Keep packages securely closed when not in use. They should be stored on surfaces that are resistant to attack by their contents if spilled, and will not react dangerously with spilled dangerous goods or other incompatible materials. For example, do not store thinners on plastic shelving. Do not decant into 'short life containers' that solvents will soften.

Stow packages in a way that minimises the risk of them falling or being dislodged.

Store packages so that leakage cannot adversely affect other dangerous goods in the storage area. Liquid dangerous goods in packages should not be stored above solid dangerous goods or reactive chemicals in paper or absorbent packaging. Glass containers of liquids should be stored at lower levels.

Where products require special storage conditions to ensure their stability (i.e. to eliminate the risk of hazardous reaction), make regular checks to ensure that these special conditions are maintained.

Where more than 20 containers of aerosols are loose and stored together, enclose them in a strong mesh enclosure to reduce the risk from projectiles in the event of a fire involving the aerosols. Keep aerosols in outer packaging as much as possible.

Do not store compressed gases especially acetylene and LPG inside vehicles that have the potential for sources of ignition. Other gases such as helium can be asphyxiants if the storage area is not isolated from the driver.

### **SEGREGATION**

Segregate any dangerous goods that are incompatible to prevent them mixing. This may be achieved by the use of an impervious barrier or by a separation distance sufficient to prevent contamination (a distance of 1.5 meters should be sufficient in most circumstances). The Victoria Code of practice for storage and handling of dangerous goods – 2013, Appendix 2 provides an excellent guide to segregation of materials.

The SDS will also state incompatibilities of the products.

### **AVOID SOURCES OF HEAT AND IGNITION**

Keep ignition sources away from flammable or combustible dangerous goods. e.g. flames or sparks from welding or grinding should be kept at least 5 meters from open containers of flammable paint, thinners, etc.

Store flammable dangerous goods away from sources of heat (for example, heating appliances).

Where dangerous goods being stored or handled can generate flammable or explosive atmospheres and there is little or no ventilation, use electrical equipment that is intrinsically safe or flameproof.

## ACCESS AND EGRESS

Don't store dangerous goods where they could hinder escape from the building or area in the event of a fire, spill or leak.

## TRANSFER OF DANGEROUS GOODS

Where paint chemicals need to be transferred (by decanting, dispensing and filling) into or from a container, ensure that:

- spill containment is provided that can hold at least the quantity of the largest container;
- the container being filled and any transfer equipment is earthed, if there is a likelihood of static electricity being generated that is possible to ignite flammable vapours during the transfer (check the safety data sheet);
- the transfer is done in a manner that reduces the generation of any vapours and avoids splashing or spillage of the dangerous goods;
- the place where the transfer is carried out is:
  - » not within close proximity to storm water drains or that drain entries are protected
  - » free of ignition sources;
  - » free of obstructions with sufficient room to enable the transfer to be carried out and to hold containers and associated equipment; and
  - » any decontamination materials or clean-up equipment is kept close by.

Where dangerous goods are to be transferred into containers at the premises, ensure the container is suitable and can't be damaged by the dangerous goods. For example, don't use a plastic container that could be softened or made brittle by the dangerous goods.

**NOTE:** The temporary container receiving the transferred dangerous goods as part of a work process does not require marking, e.g. the roller tray does not need to be marked when decanting paint into it that will be used for the painting process.

## 6.5.2 SPILL CONTROL AND CLEAN-UP

Prevent any potential flow of dangerous goods to any storm water or other watercourse or the property boundary. Possible ways to achieve this are bunding and spill trays (that should have a sufficient capacity to contain the dangerous goods spillage), provision of channels and utilising the slope of the land.

Ensure you have access to equipment and materials for clean up of the spills and immediately clean up any spills and leaks. Safely dispose of waste generated after the clean up of a spill or leak.

**NEVER CLEAN BRUSHES OR RINSE PAINT CONTAINERS INTO A STREET GUTTER OR DRAIN. IT IS HARMFUL TO THE ENVIRONMENT AND AGAINST THE ENVIRONMENTAL**

## PROTECTION ACT.

Some paint contains chemicals that may be harmful to life in our waterways and bays. Once these pollutants have found their way into the storm water system via storm water systems and drains, they are extremely difficult to trap and remove.

## 6.5.3 DISPOSING OF PAINT

Leave the lid off your paint tins and allow the excess paint to

### CLEANING UP AFTER USING WATER BASED PAINTS

- Try to wipe/squeeze as much paint as possible from the brushes, trays and rollers back into the paint tin for future use.
- Paint out any excess paint onto an absorbent material such as an old rag or newspaper. Allow paint to dry, and then dispose of it with the rest of your household waste.
- Use one container of water to clean your brush and another container to rinse it.
- Leave the first container overnight to allow the paint solids to settle to the bottom of the container. In the morning pour the water onto unused garden areas where it can be absorbed into the ground over time.
- Use an old rag or piece of newspaper and wipe out the solids from the container. Allow to dry before putting it in the garbage.
- Water from the second container that has been used for rinsing can be poured onto the garden immediately. This process doesn't take much effort and it will ensure that paint pollutants do not get into our storm water system and harm our waterways. This process will also save a lot more water than rinsing brushes under a running tap.

### CLEANING UP AFTER USING OIL BASED PAINTS

- As with water based paints, return as much paint as possible from the brushes, rollers and trays to the paint tin for future use.
- Paint out excess paint onto absorbent material such as old newspapers and allow to dry.
- Dispose of newspapers with household waste
- Take special care in cleaning brushes and equipment to use the least possible amount of solvent and remember that used solvent can be retained in a secure and properly labelled container for future use.

become a dry residue. This residue can be scraped out and disposed of in your normal household rubbish. Check with your local Council to see whether they accept empty paint cans with their kerbside collections. Check with the EPA ([www.epa.vic.gov.au](http://www.epa.vic.gov.au)) in your State to see whether there is a periodic collection program for household hazardous waste including paint.

Before you throw paint away, ask yourself whether it couldn't be of some use elsewhere around the house. Make sure the paint is suitable for the type of surface you are intending to paint. If you have a lot of paint left over you might consider giving it to your neighbour or a local community group.

- Reuse or donate to community groups or local schools.
- Preferred disposal is to use an approved chemical processor or approved drop off facility – contact your local council.
- For water based disposal, you could use an approved paint hardener and dispose of according to the manufacturers guidelines.
- For solvent based paint, leave to dry and dispose of in landfill and recycle the container.

### 6.5.4 SPRAY PAINTING

Potential ill health effects of spray painting without adequate safety precautions include:

- Difficulty in breathing;
- Skin and eye irritation;
- Drowsiness;
- Nausea;
- Sensitisation; and
- Long term damage to skin, nervous system, kidney, liver or respiratory tract.

#### ELIMINATE THE HAZARD

Consider:

- Applying the substance with a brush or roller in a sufficiently ventilated place.
- Using water-based paints instead of solvent-based paints.
- Using a dedicated spray area and ensuring there is restricted access to spray areas.
- Ensuring that the area is adequately ventilated after spray painting, before allowing any entry without respiratory protection.
- Ensuring that no ignition sources are within the spray area (area within 6 metres in any horizontal direction and up to 2 metres) or electrical wiring/equipment has been installed to an appropriate standard (see Australian / New Zealand Standard AS/NZS 2381.1).

- Ensuring touch up work using a spray gun takes no longer than 5 minutes in any 60 minute period.
- Setting up safe working and emergency procedures such as restricting access to painting areas and availability of a portable fire extinguisher appropriate to the products.
- Posting appropriate safety signs.
- Not eating, drinking or smoking around chemicals.
- Wearing correct personal protective equipment.

### 6.5.5 PERSONAL PROTECTIVE EQUIPMENT (PPE)

PPE should be selected on the basis of the potential

#### PAINTS CONTAINING ISOCYANATES

Two pack paints (Polyurethanes) containing isocyanates are often used in spray painting. These are primarily irritating to the eyes, throat and respiratory tract.

However the main hazard associated with isocyanates is respiratory sensitisation. Sensitisation may occur after a single high exposure or after long term exposure at lower concentrations. Once a person becomes sensitised, any exposure to isocyanates (even in small doses) is likely to result in asthma like symptoms including chest tightness, breathlessness and wheezing. Such attacks have on rare occasions resulted in death.

Sensitisation of the skin is also possible, resulting in persistent rashes, although this is much less common.

Painters who become sensitised to polyurethanes usually can no longer work in the industry.

#### RESPIRATORY PROTECTION

When spraying with highly hazardous products, such as flammable liquids containing isocyanates, air-supplied respiratory protection must be used. This includes situations where a well-ventilated spray booth is used.

Respiratory protection is essential when spraying with volatile liquids to protect exposure to overspray. Always refer to the chemical manufacturer's safety data sheet for the correct type of respirator required. Respirators and the filters should be of a type approved to AS/NZS 1716 and selected, used and maintained as per AS/NZS 1715.

uncontrolled exposure and the nature of the hazard.

- Review the SDS and determine what routes of exposure are not 100% controlled.
- If using gloves, ensure the glove material is resistant to the chemicals in the material. Ansell have a very good glove guide
- If wearing a respirator, ensure it fits, you are clean shaven and has the correct filter for the type of airborne hazard.
- If wearing eye protection, consider whether a large quantity of product can be spilled therefore necessitating a face shield not just safety glasses.
- Ensure PPE, appropriate to the chemicals being handled, is worn.
- Periodically check and maintain that the PPE is in good order.

### **6.5.6 FIRE PREVENTION AND PROTECTION**

Keep areas in which dangerous goods are stored or handled clear of combustible matter and refuse. In the case of storage or work outdoors, the surrounding area should be cleared of combustible vegetation for a distance of at least 3 metres.

Identify where hot works may occur and place a barrier either distance or physical, between the hot works and the flammable material.

A supply of water should be available, at a nearby location for emergency use.

Have in your possession and readily available a portable fire extinguisher appropriate to the type and quantity of dangerous goods being used. In most instances, a chemical powder extinguisher will be appropriate.

### **6.5.7 PREVENTING INJURIES AND ENVIRONMENTAL DAMAGE.**

Follow the instructions on the safety data sheet, and directions for use on the container or supplied literature.

Some examples include:

- Use water-based paints rather than solvent-based paints.
- Use a less flammable propellant in aerosols, such as carbon dioxide (class 2.2) instead of unodorised LPG (class 2.1).
- Use personal protective equipment selected on the basis of the chemicals, routes of exposure and work tasks.
- Ensure the area is well ventilated. Provide the areas in which flammable dangerous goods are used with adequate ventilation sufficient to prevent the generation of a flammable or harmful atmosphere. The level and type of ventilation will depend on the nature of the goods and

whether they are being stored or used.

- Some expanding foams use flammable propellants which can slowly bleed out over time once the foam has expanded. The vapours can accumulate in enclosed or poorly ventilated areas and introducing an ignition source may cause an explosion.
- If you intend to rely on natural ventilation and need to install vents to achieve the necessary airflow to maintain a safe atmosphere in the room being ventilated you should consider the following:
  - The need to provide vents at floor level and near the ceiling. Most dangerous goods gases and vapours are heavier than air and will vent through the floor level vents. The high level vents allowing fresh air to circulate into the room.
  - The need to ventilate directly to the outside and not into another room.
  - The need to provide a minimum amount of vent area and the spacing of vents to ensure effective airflow. A useful guide is to allow at least 1 square meter of vent area for each 50 square meters of floor area. The actual amount of vent area and the number of vents that should be provided will be dependent on the size of the room to be vented and whether there are restrictions to the free circulation of the air within the room.

### **6.5.8 TRANSPORT AND STORAGE OF HAZARDOUS CHEMICALS**

In some circumstances it may be necessary to carry dangerous and non-dangerous goods in a company or privately owned sedan, station wagon, utility and van. Such circumstances are covered by regulations in that there is a maximum quantity of dangerous good that can be transported for use in a commercial application. Drivers of such vehicles should be aware of the following recommendations:

- Carry only minimum quantities required (as a rule of thumb carry less than 70ltrs / kg and fuel containers should not exceed 30ltrs).
- Secure loading and stowing of the goods to prevent spills including securing gas cylinders external to the drivers cabin;
- Segregate incompatible materials;
- Consider nature of the Chemical (e.g. ignition, fire and dangerous reaction, refer also to SDS)
- Special care while driving.

The limitations of personal carriage of dangerous goods are based on the Australian Dangerous Goods Code for Road and Rail which states:



Less than 500kg/l of dangerous goods in aggregate where there is less than 250L of Class 2.1 (Flammable gas) and;

A person must not transport an applicable load unless each package in the load—

- (a) complies with the packaging requirements appropriate to the quantity of dangerous goods, as specified in the Regulations; and
- (b) is appropriately marked and is loaded, secured, segregated, unloaded and otherwise transported in such a way as to ensure that—
  - (i) its packaging remains fit for its purpose; and
  - (ii) the risk to any person, property or the environment is eliminated, or if it is not possible to eliminate the risk, is minimised to the maximum extent that is practicable

### **6.5.9 LEAD PAINT MANAGEMENT ON COMMERCIAL AND RESIDENTIAL PROPERTIES**

#### **WHERE IS LEAD-BASE PAINT LIKELY TO BE FOUND?**

- On homes or structures built before 1970. In many cases these buildings may have lead-based paint covered by more recently applied paint.
- Lead-based paint is more likely to be found on window frames, doors, skirting boards, kitchen and bathroom cupboards, exterior walls, gutters, metal surfaces and fascias. It may also be found on interior walls, ceilings and areas with enamel paint.
- The lead content of paint was reduced from up to 50% to 1% after 1965 and then to 0.25% in 1992.

#### **TESTING FOR LEAD**

You can test for lead in your paint using either a disposable simple lead test kit or a multiple application lead testing kit. The simple lead test kit contains two applications using a swab method. This kit should be used to determine if lead is present in the paint. The multiple application kit can be used approximately 100 times and can be used to test multiple areas and also multiple layers of paint. It is recommended to do approximately 12 tests on a standard sized house. This test only indicates the presence of lead, not the actual concentration of lead in the paint. Note the age of the property and assume, if built before 1965, lead will be present at high levels in the undercoats etc.

- Both kits are available through the Master Painters Association. Refer to <http://www.mpav.com.au/consumer-info/lead-test-kits-info/>

#### **WHEN IS LEAD-BASED PAINT A PROBLEM?**

- When the paint deteriorates and becomes powdery or flaky; and

- During paint removal from sanding or heating and scraping.

#### **WHO IS AT RISK?**

- The person removing lead-based paints.
- Occupants of the building and neighbours if dust is widely dispersed.
- Family members of persons working with lead-based paint.
- Pregnant Women, an unborn child and children

#### **WHAT ARE THE HEALTH EFFECTS OF LEAD?**

Once absorbed into the body, lead can cause both immediate and long- term health effects. The amount of lead stored in the body increases with continued exposure.

If the level of lead in your body gets too high, it can cause

- Headaches;
- Tiredness;
- Irritability;
- Constipation;
- Nausea;
- Stomach pains;
- Anaemia; and
- Weight loss.

Continued exposure could cause far more serious effects such as kidney, nerve or brain damage.

An unborn child is particularly at risk from exposure to lead, especially in the early weeks of development, before a pregnancy becomes known. Studies also prove that lead adversely affects the reproductive systems of both men and women. Children are particularly at risk once lead is absorbed into the body.

Certain duties apply to employers if the work is defined as a lead process and additional duties apply if the lead process is a lead-risk job. Always make sure you have a qualified lead accredited contractor responsible person on site at all times when removing lead paint. It is important that a Safe Work Methods Statement be completed before commencing any work.

**RECOMMENDED PROCEDURE FOR LEAD PAINT REMOVAL**

<b>METHOD</b>	<b>RISK TO HEALTH</b>	<b>CONTROL</b>
<b>WET SCRAPING</b> Preferred	Dust may be produced during the scraping process if paint is not wet properly. Flakes of paint may be dispersed around the work site.	Wear a half face respirator with P2 particulate filter during removal and clean up. Use plastic drop sheet which has the edges raised with wooden studs to collect water. Ensure proper collection of paint debris.
<b>CHEMICAL STRIPPERS</b> Preferred	Some strippers produce highly toxic vapours or can burn the skin. Even after chemical stripping has been done, a lead residue may still remain. Therefore, sanding after this method may still produce lead dust.	Wear half a face respirator with organic vapours, safety glasses, overalls and chemically resistant gloves. Consult safety data sheet for further information. Ensure windows and doors are open.
<b>WET HAND SANDING</b> Preferred	Dust may be produced if paint is not wet properly before sanding. Fine lead residue is left after water dries.	Wear a half face respirator with P2 particulate filter during removal and clean up. Use plastic drop sheet which has the edges raised with wooden studs to collect water. Wash down surfaces carefully.
<b>LOW TEMPERATURE HEAT GUN PROCESSES</b> Preferred	Unlikely to produce lead fumes unless the paint smokes from too much heat being applied. Dust may also be produced during the scraping process if the paint has started to re-harden.	Where smoke is present, wear a half face respirator with P2 particulate filter. Keep nozzle temperature below 370 EC (700EF) and do not hold too close to surface. Scrape softened paint directly onto a disposable container before it re-hardens to avoid having to sand or scrape to clean it up.
<b>DRY POWER SANDING WITH HEPA VACUUM ATTACHMENT</b> Preferred	Lead dust may be generated if the shroud of the sander extends beyond the surface being sanded or if the sander is not kept flat on the surface.	Wear a full face respirator with P3 particulate filter. This method should only be done by persons with appropriate training and experience. Not suitable for removing paint from detailed mouldings.
<b>DRY SANDING OR SCRAPING</b> Not recommended	Large amounts of fine dust are produced and distributed uncontrollably around the work site. Can contaminate neighbouring areas. Suitable if paint contains less than one percent lead.	Wear a full face respirator with P3 particulate filter, overalls and cover hair. Use plastic ground sheet. Don't perform in windy conditions. If working outdoors use shade cloth attached to house guttering at top and plastic ground sheet at bottom to prevent dust travelling.
<b>WATERBLASTING</b> Not recommended	Lead-contaminated water and flakes of lead paint are dispersed uncontrollably about the work site.	Take precautions to minimise the spread of water run off and ensure proper collection of water and debris.
<b>TORCH OR OPEN FLAME BURNING</b> Not recommended	Toxic fumes may be generated. Fire risk is high and home insurers should be contacted prior to commencing work.	Wear a half face respirator with P2 filter for toxic fumes. Ensure area is well ventilated. Keep a fire extinguisher handy.
<b>ABRASIVE BLASTING</b> Not recommended	Large amounts of dust particles are produced and distributed around the work site. High speed abrasive material can damage skin and eyes.	Wear an air supplied positive pressure helmet, protective suit, gloves and footwear. NOT suitable for domestic premises.

**THE BASIC REQUIREMENTS FOR LEAD MANAGEMENT ARE:**

**RESPIRATORY PROTECTION WHEN SANDING**

A suitable dust mask must be used by anyone creating or working near where dust is present during removal of lead based coatings. In most instances, a half face (silicon rubber) respirator fitted with a P2 filter would be suitable. Note that any orange coloured paint of unknown type should be treated as though it contains lead.

**REGULAR CLEANING AND HOUSEKEEPING OF THE WORK AREA**

Regular cleaning will reduce the risk of inhalation and ingestion of lead. You must, so far as is practicable, ensure that any lead process area is kept clean. Areas that can be contaminated with lead, including washing and eating facilities should be cleaned daily.

**EATING, DRINKING AND SMOKING**

The Regulations prohibit eating, drinking, chewing gum and smoking in any lead process areas to prevent ingestion of lead containing materials. You should also not carry cigarettes, tobacco etc. into the areas with potential lead dust. You should eat and drink in areas that are not contaminated with lead.

**CHANGING AND WASHING**

When working in a lead process, you will get some lead on your body. You should change out of your work clothes and shower as soon as you finish work.

This should help to:

- minimise the ingestion of lead;
- minimise secondary exposure from contaminated clothing; and
- avoid the spread of lead contamination to the employee's family.

When working with lead, ensure you wear disposable overalls and dispose of them straight after you finish work or the lead effected process. Also remove the prefilter on your respirator and check the main particle filter. If disposable respirators are used, dispose of them with other lead contaminated materials.

**ADEQUATE VENTILATION**

Ensure the area where you are conducting work with lead (particularly if sanding) is well ventilated to reduce your exposure.

**MEDICAL TESTING**

Both WHS and OHS regulations require employers to identify lead processes which, for in the painting industry is essentially sanding, grinding, or otherwise removing lead

based paint with more than 1% dry lead content. Where a lead process is identified, the employer must provide employees with health risk information and details of medical examinations and biological testing.

If you perform significant amounts of lead paint removal and therefore it may be described as "lead risk work", it is advised that medical testing (biological monitoring) for lead is performed and then repeated every 6 months for those personnel who perform the work.

Note: The medical testing would be required if there was uncertainty as to a person's exposure to lead dust, mist or fume emanating from the lead process.

**ADVISE OWNERS AND COUNCIL**

Advise owners of nearby properties as a matter of courtesy. It is also important to advise the local council and obtain information on where to dispose of industrial waste. The EPA or equivalent has guidance as to where lead contaminated materials can be disposed.

**SIGNS**

The work area/regulated area should be defined with tapes and barriers displaying signage as per AS1319 Safety Signs for the Occupational Environment. Phrases to be placed upon sign may include "Warning", "Lead Work Area", "Authorised Personnel Only", and "Respirators and Protective Clothing Required in this area".

To obtain more information on health and safety with lead, please access the following website:

<https://www.vwa.vic.gov.au/safety-and-prevention/health-and-safety-topics/lead>

**6.5.10 MATERIALS CONTAINING ASBESTOS**

Asbestos is the generic term for a number of fibrous silicate minerals. There are two groups of asbestos.

The serpentine group contains chrysotile, commonly known as white asbestos.

The amphibole group contains amosite (brown asbestos), crocidolite (blue asbestos) as well as some other less common types, which are tremolite, actinolite, and anthophyllite.

Asbestos poses a health risk whenever asbestos fibres become airborne and people are exposed, regardless of whether they are in a workplace or not. Accordingly, exposure to airborne asbestos should be prevented wherever possible.

For general health and safety issues around asbestos, feel free to consult the following website:

<http://www.vwa.vic.gov.au/safety-and-prevention/health-and-safety-topics/asbestos>

The manufacture and use of asbestos product was banned nationally from 31 December 2003.

Asbestos containing materials may be present in (but not limited to) fibro sheeting (flat and corrugated), water, drainage and flue pipes, roofing shingles and guttering. Mostly fibro products made before 1987 contain asbestos.

In workplaces, **the national exposure standard of 0.1 fibres/mL must never be exceeded.** Control measures should be reassessed whenever air monitoring indicates that levels above 0.01 fibres/mL (10 per cent of the exposure standard) have been reached.

Due to the danger to health that it poses, the manufacture, supply, storage, transport, sale, use, re-use, installation and replacement of asbestos is banned across Australia.

The law also prohibits the following in relation to asbestos in workplaces:

- an employer, self-employed person or a person who manages or controls the workplace must not perform asbestos removal work, or arrange for it to be performed, unless the person doing the removal work is an approved licence holder (or an employee of a licence holder) or the work is permitted to be performed without a licence under strict conditions;
- The conditions for asbestos removal without a licence are;
  - » Adequate training of workers;
  - » No more than 10m<sup>2</sup> can be removed; and
  - » in Victoria, no more than 1hr total removal time per 7 day period.
- protective clothing contaminated with asbestos must not be removed from a workplace unless it is disposed of appropriately as soon as reasonably practicable or it is contained to be commercially laundered; and
- brooms, brushes, high pressure water jets, power tools and similar instruments must not be used unless their use is controlled (in a manner specified by the Regulations) to ensure exposure to asbestos fibres is below half the exposure standard.

#### **DOMESTIC PREMISES AS A WORKPLACE**

The asbestos part of the WHS and OHS Regulations only applies to workplaces. However, if paid employees are carrying out work in domestic premises, these become temporary workplaces while the work is being performed and the Regulations do apply. In this case, the legal duties are placed on the employer or self-employed person doing the work, not the homeowner.

For further information on laws and regulations, feel free to access the following Victorian website:

<http://www.asbestos.vic.gov.au/builders-and-trades/laws-and-regulations>

#### **WORKPLACE ASBESTOS**

At no stage should a painter remove asbestos or suspected asbestos containing materials without adequate training, the required PPE and a well developed safe work procedure.

Workplaces are required to have an asbestos register. This should be consulted prior to performing any works in or around asbestos containing materials. If a material is suspected of containing asbestos, the workplace manager should be consulted. They should then take a sample for identification at a NATA accredited laboratory if there is uncertainty.

If at a domestic premises, the owner may chose to have the sample analysed, otherwise deem the material asbestos containing until proven otherwise.

See link to NATA for laboratories in your area.

[http://www.nata.com.au/nata/orgs-and-facilities/advanced\\_search](http://www.nata.com.au/nata/orgs-and-facilities/advanced_search)

#### **KEY STEPS TO BE CONSIDERED**

- Identification of the presence of asbestos containing materials.
- Preventing asbestos fibres in the air people breathe (incl. bystanders).
- All work procedures should be developed to minimise the release of dust and fibres; e.g. use non-powered hand tools as these generate much less dust.
- Personal protective equipment including coveralls and a suitable respirator.
- Decontamination, removal and/or disposal of asbestos contaminated material including PPE, tools and work area.

#### **SEALING, PAINTING, COATING AND CLEANING OF ASBESTOS CEMENT PRODUCTS**

As a first priority removing asbestos containing material must be considered. Where asbestos containing materials cannot be removed and must be sealed, painted, coated or cleaned, there may be a risk to health. Such tasks can only be carried out on asbestos containing materials that are in good condition. For this reason, the asbestos containing material needs to be thoroughly inspected before the work begins.

There is a risk to health if the surface of asbestos cement sheeting has been disturbed (e.g. from hail storms and cyclones) or if the sheeting has deteriorated as a result of environmental factors, such as pollution. If asbestos cement sheeting is so weathered that its surface is cracked or broken the asbestos cement matrix has been eroded, there is an increased the likelihood that asbestos fibres could be released if disturbed.

If treatment of asbestos cement sheeting is considered essential, a method that does not disturb the matrix of the

asbestos cement sheeting needs to be used. An airless sprayer at low pressure is preferred to rollers or brushes on exposed (or unsealed) asbestos as rollers and brushes may cause abrasion/damage and result in fibres being released from the surface of the material. The brushes and rollers will also become contaminated with asbestos fibres and will have to be disposed as contaminated waste.

Under no circumstances should asbestos containing material be water-blasted or dry-sanded in preparation for painting, coating or sealing.

### **EQUIPMENT**

In addition to any equipment required to complete the particular task (e.g. paint, paint brushes, paint rollers or airless spray gun/equipment) the following equipment may be required on site before the work begins:

- disposable cleaning rags
- bucket of water and/or a misting spray bottle
- sealant for exposed edges.
- spare PPE
- suitable asbestos waste container
- warning signs and/or barrier tape.

### **PERSONAL PROTECTIVE EQUIPMENT (PPE)**

- See Appendix H (Managing asbestos in workplaces (Compliance Code, September 2008)) for guidance on protective clothing.
- It is likely that a class P1 or P2 half-face respirator will be adequate for this task, provided the recommended safe work procedure is followed. See appendix H of (Managing asbestos in workplaces (Compliance Code, September 2008)) for guidance on selecting appropriate respirators. The WHS Code of Practice for removing asbestos also has similar information in its appendix B
- Where paint is to be applied, appropriate respiratory protection to control the paint vapours/mist should also be considered.

### **PREPARING THE ASBESTOS WORK AREA**

- If work is to be carried out at height, appropriate precautions must be taken to prevent the risk of falls.
- Before starting assess the asbestos cement for damage.
- Ensure appropriately marked asbestos waste disposal bags are available.
- Carry out the work with as few people present as possible.
- Segregate the asbestos work area to ensure unauthorised personnel are restricted from entry (e.g. close doors and/or use warning signs and/or barrier tape at all entry points). The distance for segregation needs to be determined by a risk assessment.

- Avoid windy days, minimise dust generation.
- If working at height barricade the area below.
- If possible, use plastic sheeting secured with duct tape to cover any floor surface within the asbestos work area which could become contaminated.
- Ensure there is adequate lighting.
- If using a bucket of water do not re-soak used rags in the bucket as this will contaminate the water. Instead, either fold the rag so a clean surface is exposed or dispose of as asbestos waste and use another rag.
- Never use high-pressure water cleaning methods.
- Never prepare surfaces using dry-sanding methods. Where sanding is required, consideration needs to be given to removing the asbestos containing material and replacing it with non- asbestos containing material.
- Wet sanding methods may be used to prepare the material provided precautions are taken to ensure all the runoff is captured and filtered where possible.
- Wipe dusty surfaces with a damp cloth.

### **PAINTING AND SEALING**

- When using a spray brush never use a high-pressure spray to apply the paint.
- When using a roller use it lightly to avoid abrasion or other damage.

### **DECONTAMINATING THE ASBESTOS WORK AREA AND EQUIPMENT**

- Use damp rags to clean the equipment.
- Where required, use damp rags and/or an asbestos vacuum cleaner to clean the asbestos work area.
- Place debris, used rags, plastic sheeting and other waste in labelled asbestos waste bags/containers.
- Wet-wipe the external surfaces of the asbestos waste bags/containers to remove any adhering dust before they are removed from the asbestos work area.

### **PERSONAL DECONTAMINATION**

Carry out the following personal decontamination procedure in a designated area:

- If disposable coveralls are worn for the activity, clean the coveralls and respirator while still wearing them. Coveralls can be cleaned using a HEPA vacuum, damp rag or fine-water spray and the respirator can be cleaned with a wet rag or cloth.
- While still wearing the respirator remove coveralls, turning them inside-out to entrap any remaining contamination and then place them into a labelled asbestos waste bag.

- Remove the respirator. If a non-disposable respirator was used, inspect it to ensure it is free from contamination, remove the prefilter, and clean it with a wet rag and store in a clean container.
- Disposable respirators do not require cleaning. They need to be placed into a labelled asbestos waste bag or waste container dedicated for asbestos waste.

#### **CLEARANCE PROCEDURE**

- Visually inspect the asbestos work area to make sure it has been properly cleaned.
- Dispose of all waste as asbestos waste.

#### **FOR FURTHER INFORMATION**

For detailed guidance about managing and removing asbestos, refer to WorkSafe Victoria's compliance codes "Managing asbestos in workplaces" and "Removing asbestos in workplaces".

If you want to engage a licensed removalist, see WorkSafe Victoria's service provider directory at [www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

The following website address looks at asbestos in the home as well as in the workplace and provides advice on how to work with or remove asbestos in a safe and responsible manner.

<http://www.asbestos.vic.gov.au/>

Householders can also contact their local council's Environmental Health Officers for advice.

For Tasmania, contact

[http://worksafe.tas.gov.au/industry\\_and\\_safety/topics/subject/asbestos](http://worksafe.tas.gov.au/industry_and_safety/topics/subject/asbestos)

which provides links to other useful sites, finding asbestos removalist and general advice. It also has the WHS Codes of practice for managing and removing asbestos.

### **6.6 WORKING ALONE**

As a self-employed person or a sole trader you would frequently work alone. In addition, your employees may be requested to work alone and are thus isolated from the assistance of other persons. You are advised to consider the related hazards including:

- Security; and
- Lack of assistance in an emergency situation. This is especially important if fall arrest systems are used.

#### **WAYS TO MINIMISE THE RISK OF INJURY WHEN WORKING ALONE**

- Always assess the potential hazards and risks associated with a job prior to commencing work and identify methods of ensuring the risks are minimised (See Section 5). This

may involve carrying documented emergency contact numbers, contact details of your doctor and next of kin.

- Regular communication with family members/colleagues.
- Arrange times when you will make contact with others and also ensure they are aware of your location.
- Ensure you always have a means of communication, such as a charged functional mobile phone or a two way radio. Check mobile coverage especially in country locations.
- Carry a First Aid kit suitable for treating minor injuries.

### **6.7 COMPRESSED AIR**

Compressed air travels in an intense stream at a high velocity. Exposure to it can result in severe injuries or even fatality.

Compressed air can enter the blood stream through a break in the skin or through a body opening. An air bubble in the blood stream, known as an embolism, can be fatal. While the chances of this occurring are small, the consequences of even a small quantity of air or other gas in the blood can quickly be fatal.

Depending on its pressure, compressed air can dislodge particles and dust that can enter the eyes or damage skin. The pressure and sound of compressed air can also cause hearing damage.

Do not use compressed air for cleaning. A brush or a vacuum cleaner should be used instead.

Never point the compressed air outlet towards a person or towards yourself.

### **6.8 ELECTRICAL SAFETY**

There are potential hazards associated with using electrical equipment and nearby wiring.

The Tasmanian WHS Regulations describe specific duties for employers when working on or around electrical equipment.

The following are basic steps to minimise the risk of injury related to electricity:

- Do not use power tools and/or electrical leads in damp areas or in the rain.
- Make sure all your electrical tools are double insulated. Maintain your tools in a safe working order. Do not leave tools lying around and switched on.
- Test and tag all your electrical appliances and extension cords. This should be performed by a qualified electrician every 3 months.
- Protect electrical cords by enclosing in a protective cover or fixing them overhead;
- Conduct visual inspection of power outlets and power boards;

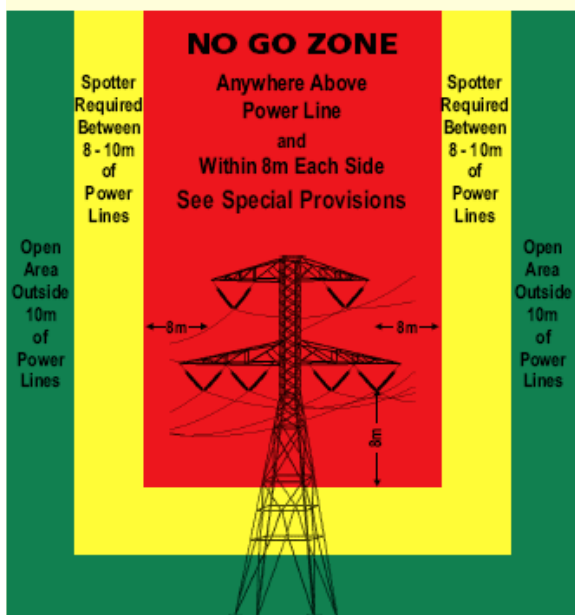
- Carry portable residual current devices (RCDs) that can be utilized if no fixed RCD is in place. Test before use.
- If you must work near power lines, including supply lines into a building, have them de-energised, or insulated with 'tiger tails'.
- In a domestic situation you must keep at least 2m away from bare and 1m away from bundled main wires / power lines to the building.
- Observe all mandatory exclusion zones when working near power lines or use a spotter.

**"LOOK UP AND LIVE"**

**Overhead Power Lines on Poles**



**Overhead Power Lines on Towers**



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## 7.0 AWARDS AND LEGAL OBLIGATIONS RELATING TO EMPLOYMENT

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- It is recommended that all painting contractors must comply with the provision of the Building and Construction General On Site Award for employees.
- Legislative requirements are met.
- Any arrangement or practice designed to avoid awards, registered agreements or legislative obligations are not permitted.

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## 8.0 WORKPLACE ARRANGEMENTS

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Workplace arrangements which reflect the needs of the enterprise are important in achieving continuous improvement and best practice and should do the following:

- provide opportunities for consultation;
- improve safety and rehabilitation practices;
- improve remuneration and conditions;
- increase productivity;
- give a greater career path for new apprentices and employees; and
- training and skill formation strategies.

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## 9.0 PAINTING OF BUILDINGS

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This Industry Standard recommends painting practices as detailed in AS/NZS 2311 The Guide to the painting of Buildings (as current at the time of printing).

This standard includes:

- Design for Painting.
- Preparation of Unpainted Surfaces.
- General Description of Paints and Pre-treatment.
- Systems for the painting of buildings in general.
- Paint Application.
- Maintenance of painted surfaces.

- Maintenance of painting systems.
- Preparation of painting systems.
- Testing of painting systems.

**THE CURRENT PRACTICE IN THE BUILDING INDUSTRY FOR THE CONSTRUCTION OF NEW COMMERCIAL AND RESIDENTIAL DWELLINGS ONLY SPECIFIES TWO COATS OF PAINT, THIS PRACTICE IS NOT IN THE BEST INTEREST OF CONSUMERS AND CERTAINLY NOT INDUSTRY "BEST PRACTICE".**

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## 10.0 ENFORCEMENT OF THIS INDUSTRY STANDARD

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This Industry Standard is a voluntary standard for painters in Victoria and Tasmania.

This Industry Standard is supported by the Master Painters Association.

Current members of the Master Painters Association also work to the Master Painter Associations Code of Ethics which is compliant with the rules of membership. The MPA Code of Ethics is adopted as part of this Industry Standard.

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## BLISTERING

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One of the most common problems especially during warmer months is blistering of acrylic paint on exterior wooden surfaces.

A common scenario is when a painter decides to paint a dull but usually sound surface, he/she sands the surface and applies 2 coats (acrylic gloss), within days large blisters have begun to appear on the new paintwork - rising with the sun and diminishing at night. From a customer's point of view, it's easy to see why they blame the new coating for their problems. The painter has prepared the surface, properly followed the label instructions and now the customer has unsightly blisters all over their timber (what a disaster).

Let's go back a few steps and look at why this may occur. At some stage the house was more than likely painted with enamel. Over the years this has become very hard and brittle and its lack of flexibility does two things:

1. Boards expand and contract, the paint doesn't. This movement literally shears the paint away from the wood.
2. Enamel develops millions of tiny cracks (usually not visible to the naked eye) - these allow excessive moisture to enter the board. When this board is painted and sealed with two



fresh coats of paint, it traps moisture in the wood as soon as the sun and heat play on the surface.

The trapped moisture expands (like a boiling kettle) and escapes to the surface of the wood wherever the paint has lost adhesion caused by being sheared off due to movement in the timber as explained in point one.

The expanding water vapours force the paint out into a blister when the heat is removed from the surface. (i.e., at night the gas returns to moisture and dissipates into the wood). Two questions now remain:

- A. How do I fix it?
- B. How do I avoid it?

The answer to this problem is that all blistered areas need to be stripped back to bare wood and treated as a new, fresh wooden surface, i.e. primed etc.

In general, if the surface has been painted with enamel and is more than 15 years old, chances are you'll get blistering. The only way to totally avoid these problems is to strip off all enamel and start again. This is usually the problem the painter/contractor faces. The consumer never wants to pay for this, it usually becomes too expensive and labour intensive. In 90% of cases, the stripping of old exterior paint is highly recommended.

## PREPARATION OF PRE-PRIMED TIMBER

With the increasing cost of quality durable timber, builders are relying more on pre-primed, LOSP – treated pine for exterior applications.

LOSP (light organic solvent preservation) consists of preservatives dissolved in solvent and impregnated into the timber to prevent rotting, giving the timber durability in above-ground exterior applications.

Pre-priming is designed to temporarily protect the timber from weather and UV degradation, as well as soiling during construction. Pre-primed timber, by its appearance or by the description given to it by persons handling it. Is often mistaken for properly primed timber ready for top-coating.

Pre-primed timber are low cost, solvent borne, quick drying, factory applied products. They are formulated to dry quickly so that they can be applied on a production line and promptly dried, handled, stacked, stored and transported in bulk.

Pre-primers regularly fail within 12 months exterior exposure, taking any other coatings with them. Failure is by blistering or cracking and peeling, either back to bare timber or within the primer layer.

Primers are crucial to the durability of a coating system. Let's look at a comparison of pre-primers with wood primers recommended as part of a durable coating system:

FEATURE	PRE-PRIMERS	PREMIUM ARCHITECTURAL PRIMERS
Specially formulated for long service life	No	Yes
Flexible to move with timber	No	Yes
GPC-P-18 approved for exterior use	No	Yes

For satisfactory long term service, the following system is recommended:

1. Remove pre-primed back to bare timber by sanding.
2. Prime bare LOSP-treated pine with acrylic primer; if all of the pre-primer is removed can use acrylic (but oil is best), alternatively, if traces of the pre-primer remain or the timber has any weathering, use oil based primer.
3. Finish with an acrylic or enamel finish as required.

# PAINT FINISHING STANDARD WITHIN THE INDUSTRY

## STANDARD OF PAINTING

Coatings used are to be suitable for the relevant conditions and relevant wear and tear.

Unless documented otherwise, painting is defective if it does not comply with the manufacturer's installation instructions or AS/NZS 2311 – Guide to the Painting of Buildings.

## SURFACE FINISH OF PAINTWORK

Paintwork is defective if application defects or blemishes such as paint runs, paint sags, wrinkling, dust, bare or starved painted areas, colour variations, surface cracks, irregular and coarse brush marks, sanding marks, blistering, uniformity of gloss level and other irregularities in the surface that are visible from a normal viewing position.

Excessive over-painting of fittings, trims, skirtings, architraves, glazing and other finished edges is a defect.

## NAIL AND SCREW FIXINGS

Fixings or unfilled depressions caused by fixings are defects in painted or stained surfaces if they can be seen from a normal viewing position.

## MECHANICAL DAMAGE AND NATURAL DEFECTS IN SURFACES

Holes and any other unfilled depressions in painted or stained timber such as surface defects caused by mechanical damage, natural characteristics such as gum pockets or surface splits are defects if they can be seen from a normal viewing position.

## PAINT DURABILITY

Unless documented otherwise, coatings are defective if they fail by lifting, blistering, flaking, fading etc. within the minimum period shown in table below.

## MINIMUM DURABILITY OF COATED FINISHES

COATING	MINIMUM DURABILITY
Exterior Acrylic	36 months
Exterior Enamel	24 months
Exterior semitransparent stains	12 months
Exterior clear finishes	Not recommended
Interior – all finishes	36 months

# TOUCH UP ON PAINT WORK

Following many queries from consumers in regards to procedures in touching up paintwork on plaster walls and other smooth surfaces.

The Master Painters Association recommends the following procedure:

- Generally to touch up a mark or defect it is only acceptable if the paint work is finished in a flat finish and does not require double coating.
- Also on side viewing does not show touch up area when dry.
- Area to be touched up is only small in size app 25mm x 25mm and is outside eye level line.
- Paintwork must be feathered away from defect area, not just over immediate area.
- If the walls have been finished in any coatings with sheen the following must be observed:

Generally touching up surfaces with sheen is not acceptable.

- Touch up material must be from the same batch
- Thin out paint lightly
- Application must be the same as used previously i.e. brush, roller, or spray
- All spray work must/should be back rolled as per industry standard
- Where filling is required, touch up filled area twice.

It is recommended that surface be completely recoated after the above has taken place.

Other items that need to be considered doing touch ups.

- Application at different temperatures
- Inadequate colour acceptance
- Application over surfaces at differing porosities
- Higher sheen paints tend to show sheen differences more than flat finishes

If the touch up is because of poor painting procedures cost should be borne by the contractor.

If finished work is damaged by other parties it is to be charged out as a variation to builder or client.

Always use a variation form and have it signed.

# PAINTING OF PLASTERBOARD & BACKROLLING

The Master Painters Association recommends that when painting new plaster board a three coat system should apply as per the Industry Standard.

Selecting the right product and finish for the job at hand is one of the decisions a professional painting contractor has to make to obtain a quality finish and maximize the life of the surface coating for their clients.

- The first coat should be a coat applied with a 10mm wool nap roller, the preferred method.
- If the first coat is to be applied by spray application then back rolling should occur. Back rolling must be carried out whilst paint film is still wet.
- The two finish coats should be applied as normal with backrolling<sup>1</sup> when spray applications have been used.
- Two coat systems on raw plaster board do not allow the paint product used to reach its full potential both in performance and colour depth. If a two coat system is to be used we recommend a manufactures warranty be obtained.
- Touch ups on low sheen or satin finishes are also not recommended and the whole area should be recoated to maximize the paint finish.
- If coverage has still not been achieved, extra coats should be charged out as a variation.
- The recommended viewing distance for paint work is 1.5 to 2 m which must be performed in a well lit area.

**Backrolling** is the process of following along behind the spray gun with a short to medium nap roller.

This procedure is highly recommended when painting plasterboard surfaces.

It has three direct benefits:-

- The rolling action assists in laying down (flattening) the 'nap' that can be raised both by the plasterer when sanding off set joints - and by the painter through the interaction of the spray with any loose paper fibres on the surface.
- The rolling action assists in working the paint into the textured paper surface of plasterboard. The roller imparts a surface texture to the freshly applied paint. The texture is helpful in disguising small variations in flatness which can occur - particularly over setting lines at the joints between the boards. It also disguises small variations in surface texture between the board and setting compound surfaces.

- The manufacturers of plasterboard have advocated the process of backrolling since the use of spray guns became common.
- Painters who do not backroll following spray paint application, face the possibility of being accused of not complying with recommended painting practice over plasterboard.
- The recommended system when painting plasterboard is:- a recommended sealer followed by two full coats of premium water based paint. As a minimum, the first (sealer) coat should be backrolled.
- The backrolling of subsequent coats enhances texture.

**All preparation and painting works should be to the AS/NZ 2311:2009 The Guide to the Painting of Buildings.**

# APPENDIX 1 – USEFUL RESOURCES

## MASTER PAINTERS ASSOCIATION

Victoria, [www.mpav.com.au](http://www.mpav.com.au)  
Tasmania, [www.mpat.com.au](http://www.mpat.com.au)

## CONSUMER AFFAIRS VICTORIA

[www.consumer.vic.gov.au](http://www.consumer.vic.gov.au)

## DEPARTMENT OF HUMAN SERVICES

[www.dhs.vic.gov.au](http://www.dhs.vic.gov.au)

## ENVIRONMENT PROTECTION AUTHORITY

[www.epa.vic.gov.au](http://www.epa.vic.gov.au)

## BUILDING AND CONSTRUCTION WORKPLACES (CODE OF PRACTICE NO. 13, 1990),

[www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

## WORKING SAFELY IN THE HOUSING CONSTRUCTION INDUSTRY – A HANDBOOK FOR THE CONSTRUCTION REGULATIONS

[www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

## PREVENTING FALLS IN HOUSING CONSTRUCTION (CODE OF PRACTICE JULY 2012)

[www.safeworkaustralia.gov.au](http://www.safeworkaustralia.gov.au)

## LEAD (CODE OF PRACTICE NO.26, 2000)

[www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

## MANAGING ASBESTOS IN WORKPLACES (COMPLIANCE CODE, SEPTEMBER 2008),

[www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

## REMOVING ASBESTOS IN WORKPLACES (COMPLIANCE CODE, SEPTEMBER 2008)

[www.vwa.vic.gov.au](http://www.vwa.vic.gov.au)

## CODE OF PRACTICE FOR THE STORAGE AND DANGEROUS GOODS 2013

[www.vwa.vic.gov.au/forms-and-publications/compliance-codes-and-codes-of-practice](http://www.vwa.vic.gov.au/forms-and-publications/compliance-codes-and-codes-of-practice)

## Australian Standards

- AS/NZS 1067:2003 Sunglasses and fashion spectacles.
- AS 1318 SAA Industrial safety colour code.
- AS/NZS 1337 Eye protectors for industrial applications.
- AS 1345 Identification of the contents of pipes, conduits and ducts.
- AS/NZS 1716 Respiratory protective devices.
- AS/NZS 1715 Selection, use and maintenance of respiratory protective devices
- AS/NZS 1892.1 Portable ladders Part 1: Metal.

## NATIONAL HAZARDOUS SUBSTANCES INFORMATION SYSTEM

<http://hsis.safeworkaustralia.gov.au/>

## HAZARDOUS SUBSTANCES (CODE OF PRACTICE NO. 24, 2000)

<http://www.vwa.vic.gov.au/forms-and-publications/forms-and-publications/hazardous-substances-code-of-practice-no.-24,-2000>

## DANGEROUS GOODS STORAGE AND HANDLING (CODE OF PRACTICE 2013)

<http://www.vwa.vic.gov.au/forms-and-publications/forms-and-publications/code-of-practice-for-the-storage-and-handling-of-dangerous-goods-2013>

## MANUAL HANDLING (CODE OF PRACTICE NO.25, 2000),

<https://www.vwa.vic.gov.au/forms-and-publications/forms-and-publications/manual-handling-code-of-practice-no.25,-2000>

## PREPARATION OF SAFETY DATA SHEETS FOR HAZARDOUS CHEMICALS (CODE OF PRACTICE, DECEMBER 2011)

<http://www.safeworkaustralia.gov.au/sites/swa/about/publications/pages/safety-data-sheets-hazardous-chemicals-cop>

## SAFE WORK METHOD STATEMENTS (SWMS)

<http://www.mpav.com.au/membership/safe-work-method-statementsjsa/>

<http://www.paintsafe.com.au/>

## AUSTRALIAN INDUSTRY GROUP WORK HEALTH AND SAFETY LAWS COMPARISON

<http://www.aigroup.com.au/ohs/nationalohsreview/>

## TASMANIAN WHS REGULATOR

[http://worksafe.tas.gov.au/industry\\_and\\_safety](http://worksafe.tas.gov.au/industry_and_safety)

## IMPLEMENTATION GUIDELINES TO THE VICTORIAN CODE OF PRACTICE


<http://www.dtf.vic.gov.au/Publications/Infrastructure-Delivery-publications/CCCU/Implementation-Guidelines-to-the-Victorian-Code-of-Practice>

- AS 1892.2 Portable ladders Part 2: Timber.
- AS/NZS 1892.3 Portable ladders Part 3: Reinforced plastic.
- AS/NZS 1892.5 Portable ladders Part 5: Selection, safe use and care.
- AS 2310 Glossary of paint and painting terms.
- AS/NZS 2311 Guide to the Painting of Buildings.
- AS/NZS 2381.1 Electrical equipment for explosive gas atmospheres – Selection, installation and maintenance – General requirements.
- AS 2700-2011 Colours for general purposes.
- AS/NZS 2865 Confined spaces.

# APPENDIX 2 - HAZARD MANAGEMENT FORM

## HIERARCHY OF CONTROL

Always attempt to implement a control from the top of the hierarchy, as these controls are the most effective. You may need to consider more than one control.

MOST EFFECTIVE	ELIMINATE	Totally remove the hazard.
	SUBSTITUTE	Replace the hazard with something less hazardous.
	ENGINEERING	Place a guard on the equipment or change the process in some way.
	ADMINISTRATION	Training, procedures, signage, supervision.
	LEAST EFFECTIVE	PERSONAL PROTECTIVE EQUIPMENT

<b>TASK/ACTIVITY:</b>	
<b>LOCATION:</b>	
<b>COMPLETED BY:</b>	<b>CONSULTED WITH:</b>
<b>DATE:</b>	
<ol style="list-style-type: none"> <li>1. Identify each step in the task.</li> <li>2. Identify all hazards associated with each step. Record hazards in the table below. Use the Hazard Identification Checklist to identify physical or workplace environment hazards. Ensure relevant hazards are ticked in the hazard identification checklist.</li> <li>3. Identify all controls currently in place for each hazard (using the hierarchy of control) and record them in the table below.</li> <li>4. Identify the likely 'consequence' &amp; 'likelihood' (using the information on page 1) for each hazard. Determine the 'risk score' for each hazard using the grid shown and record it in the table below.</li> </ol> <p>Identify any future controls that may assist in reducing the risk further and record them below.</p>	

**LIST JOB STEPS HERE:** \_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_

\_\_\_\_\_



<b>JOB STEP OR WORK ENVIRONMENT</b>	<b>HAZARD &amp; ASSOCIATED RISK</b>	<b>EXISTING RISK CONTROL MEASURES</b>	<b>RISK RATING (considering existing controls)</b>	<b>POSSIBLE FUTURE RISK CONTROLS</b>

# HAZARD IDENTIFICATION CHECKLIST\*

\* Hazards identified should be transferred to Risk Assessment

<b>DATE:</b>	
<b>PROCESS OR TASK BEING ASSESSED:</b>	

<b>MANUAL HANDLING</b>	
<b>REPETITIVE OR SUSTAINED POSTURES, MOVEMENTS OR FORCES?</b>	<b>YES</b>
Bending the back forwards or sideways > 20°	<input type="checkbox"/>
Twisting the back > 20°	<input type="checkbox"/>
Backward bending of the back > 5°	<input type="checkbox"/>
Bending the head forwards or sideways > 20°	<input type="checkbox"/>
Bending the head backwards > 5°	<input type="checkbox"/>
Working with one or both hands above shoulder height	<input type="checkbox"/>
Reaching forwards or sideways > 30cm from the body	<input type="checkbox"/>
Squatting, kneeling, crawling, and semi-lying or jumping?	<input type="checkbox"/>
Pushing, pulling or dragging?	<input type="checkbox"/>
Working with the fingers close together or wide apart	<input type="checkbox"/>
Lifting or lowering	<input type="checkbox"/>
Gripping with fingers pinched together or held wide apart	<input type="checkbox"/>
Carrying with one hand or one side of the body	<input type="checkbox"/>
Very fast movements?	<input type="checkbox"/>
Exerting force while in an awkward posture	<input type="checkbox"/>
Excessive bending of the wrist	<input type="checkbox"/>
Standing with most of your weight on one leg?	<input type="checkbox"/>
Twisting, turning, grabbing or wringing actions with the fingers or arms	<input type="checkbox"/>
Reaching behind the body	<input type="checkbox"/>
<b>TASK REQUIRING HIGH FORCE?</b>	<b>YES</b>
Using a finger grip, a pinch grip or an open handed grip to handle a large and heavy load	<input type="checkbox"/>
Needing to use two hands to operate a tool designed for one hand	<input type="checkbox"/>
Applying sudden or unexpected forces (e.g. sack of flour)	<input type="checkbox"/>
Exerting force at the limit of the grip span	<input type="checkbox"/>
Hitting or kicking	<input type="checkbox"/>
Pain or significant discomfort during or after the task	<input type="checkbox"/>
Two or more people need to be assigned to handle a load	<input type="checkbox"/>
Lifting, lowering or carrying heavy loads	<input type="checkbox"/>
Applying uneven, fast or jerky forces during lifting, carrying, pushing or pulling	<input type="checkbox"/>

# HAZARD IDENTIFICATION CHECKLIST\*

\* Hazards identified should be transferred to Risk Assessment

<b>DATE:</b>	
<b>PROCESS OR TASK BEING ASSESSED:</b>	

<b>MANUAL HANDLING</b>	
<b>REPETITIVE OR SUSTAINED POSTURES, MOVEMENTS OR FORCES?</b>	<b>YES</b>
Bending the back forwards or sideways > 20°	<input type="checkbox"/>
Twisting the back > 20°	<input type="checkbox"/>
Backward bending of the back > 5°	<input type="checkbox"/>
Bending the head forwards or sideways > 20°	<input type="checkbox"/>
Bending the head backwards > 5°	<input type="checkbox"/>
Working with one or both hands above shoulder height	<input type="checkbox"/>
Reaching forwards or sideways > 30cm from the body	<input type="checkbox"/>
Squatting, kneeling, crawling, and semi-lying or jumping?	<input type="checkbox"/>
Pushing, pulling or dragging?	<input type="checkbox"/>
Working with the fingers close together or wide apart	<input type="checkbox"/>
Lifting or lowering	<input type="checkbox"/>
Gripping with fingers pinched together or held wide apart	<input type="checkbox"/>
Carrying with one hand or one side of the body	<input type="checkbox"/>
Very fast movements?	<input type="checkbox"/>
Exerting force while in an awkward posture	<input type="checkbox"/>
Excessive bending of the wrist	<input type="checkbox"/>
Standing with most of your weight on one leg?	<input type="checkbox"/>
Twisting, turning, grabbing or wringing actions with the fingers or arms	<input type="checkbox"/>
Reaching behind the body	<input type="checkbox"/>
<b>TASK REQUIRING HIGH FORCE?</b>	<b>YES</b>
Using a finger grip, a pinch grip or an open handed grip to handle a large and heavy load	<input type="checkbox"/>
Needing to use two hands to operate a tool designed for one hand	<input type="checkbox"/>
Applying sudden or unexpected forces (e.g. sack of flour)	<input type="checkbox"/>
Exerting force at the limit of the grip span	<input type="checkbox"/>
Hitting or kicking	<input type="checkbox"/>
Pain or significant discomfort during or after the task	<input type="checkbox"/>
Two or more people need to be assigned to handle a load	<input type="checkbox"/>
Lifting, lowering or carrying heavy loads	<input type="checkbox"/>
Applying uneven, fast or jerky forces during lifting, carrying, pushing or pulling	<input type="checkbox"/>



<b>MANUAL HANDLING</b>	
<b>CHEMICALS</b>	<b>YES</b>
No current Safety Data Sheet (SDS) available (i.e. > than 5 years) or inaccessible to operators or employees?	<input type="checkbox"/>
Chemicals have not been added to the chemicals register	<input type="checkbox"/>
Are any chemicals classified as a Dangerous Good? If yes:	<input type="checkbox"/>
(a) Dangerous Goods with mixed classifications stored together (i.e. Class 3 flammables stored with class 8 corrosives?)	<input type="checkbox"/>
(b) No bunding present in the event of a spill?	<input type="checkbox"/>
(c) Spill kits unavailable?	<input type="checkbox"/>
(d) No emergency response procedures implemented in the event of a spill, fire, explosion or release?	<input type="checkbox"/>
Are any chemicals classified as Hazardous Substances? If yes:	<input type="checkbox"/>
(e) Is there possible contact with chemicals	<input type="checkbox"/>
(f) Is there risk of inhalation	<input type="checkbox"/>
(g) Is there risk of contact with the skin	<input type="checkbox"/>
(h) Is there risk of contact with the eyes	<input type="checkbox"/>
(i) Is there risk of ingestion?	<input type="checkbox"/>
(j) Do any chemicals require health surveillance	<input type="checkbox"/>
Chemicals have none or deficient labelling?	<input type="checkbox"/>
Team members are working with chemicals without hazardous substances or dangerous goods training?	<input type="checkbox"/>
<b>FALLS FROM HEIGHT</b>	<input type="checkbox"/>
Person falling from height:	<b>YES</b>
Person could fall more than two metres?	<input type="checkbox"/>
Work from a surface other than a work platform?	<input type="checkbox"/>
Work near pits or edges?	<input type="checkbox"/>
<b>OBJECTS FALLING FROM HEIGHT:</b>	<b>YES</b>
Objects stored above shoulder height?	<input type="checkbox"/>
Exceed capacity of storage system?	<input type="checkbox"/>
Objects being raised by plant in vicinity of pedestrians?	<input type="checkbox"/>
<b>NOISE</b>	<b>YES</b>
Need to shout to be heard at arms length?	<input type="checkbox"/>
Team members report noise as a distraction when undertaking task?	<input type="checkbox"/>

<b>CHEMICALS</b>	<b>YES</b>
No current Safety Data Sheet (SDS) available (i.e. > than 5 years) or inaccessible to operators or employees?	<input type="checkbox"/>
Chemicals have not been added to the chemicals register	<input type="checkbox"/>
Are any chemicals classified as a Dangerous Good? If yes:	<input type="checkbox"/>
(a) Dangerous Goods with mixed classifications stored together (i.e. Class 3 flammables stored with class 8 corrosives?)	<input type="checkbox"/>
(b) No bunding present in the event of a spill?	<input type="checkbox"/>
(c) Spill kits unavailable?	<input type="checkbox"/>
(d) No emergency response procedures implemented in the event of a spill, fire, explosion or release?	<input type="checkbox"/>
Are any chemicals classified as Hazardous Substances? If yes:	<input type="checkbox"/>
(e) Is there possible contact with chemicals	<input type="checkbox"/>
(f) Is there risk of inhalation	<input type="checkbox"/>
(g) Is there risk of contact with the skin	<input type="checkbox"/>
(h) Is there risk of contact with the eyes	<input type="checkbox"/>
(i) Is there risk of ingestion?	<input type="checkbox"/>
(j) Do any chemicals require health surveillance	<input type="checkbox"/>
Chemicals have none or deficient labelling?	<input type="checkbox"/>
Team members are working with chemicals without hazardous substances or dangerous goods training?	<input type="checkbox"/>
<b>FALLS FROM HEIGHT</b>	<input type="checkbox"/>
Person falling from height:	<b>YES</b>
Person could fall more than two metres?	<input type="checkbox"/>
Work from a surface other than a work platform?	<input type="checkbox"/>
Work near pits or edges?	<input type="checkbox"/>
<b>OBJECTS FALLING FROM HEIGHT:</b>	<b>YES</b>
Objects stored above shoulder height?	<input type="checkbox"/>
Exceed capacity of storage system?	<input type="checkbox"/>
Objects being raised by plant in vicinity of pedestrians?	<input type="checkbox"/>
<b>NOISE</b>	<b>YES</b>
Need to shout to be heard at arms length?	<input type="checkbox"/>
Team members report noise as a distraction when undertaking task?	<input type="checkbox"/>

<b>CHEMICALS</b>	<b>YES</b>
Access, egress or conducting the task requires pedestrians to enter or pass through an area that allows mobile plant or vehicular movement?	<input type="checkbox"/>
Task is located on a road or mobile plant traffic area?	<input type="checkbox"/>
Traffic blindspots, hills, obstacles are preventing clear vision	<input type="checkbox"/>
Is there no evidence of signage, alerts or guidance (e.g. speed signage, convex mirrors)	<input type="checkbox"/>
Evidence of mobile plant collisions with this task?	<input type="checkbox"/>
Road surface is uneven, sloped or slippery?	<input type="checkbox"/>
Evidence of non-compliance with pre-start inspection checklists (on forklifts)	<input type="checkbox"/>
<b>THERMAL</b>	<b>YES</b>
Working in areas like to be above 30 degrees?	<input type="checkbox"/>
Exposure to hot surfaces?	<input type="checkbox"/>
Exposure to hot vapours or gases?	<input type="checkbox"/>
Working in areas likely to be below 10 degrees?	<input type="checkbox"/>
Exposure to cold surfaces?	<input type="checkbox"/>
Exposure to cold gases (i.e. LPG)?	<input type="checkbox"/>
PPE requirements prevent natural cooling of the body?	<input type="checkbox"/>
<b>CONFINED SPACES</b>	<b>YES</b>
The workspace has limited or restricted means for entry / exit?	<input type="checkbox"/>
Is large enough for an employee to enter and work within and is considered a place of work?	<input type="checkbox"/>
Is not designed as a continuous place of work?	<input type="checkbox"/>
Contains or has the potential to contain a hazardous atmosphere? (i.e. Asphyxiant or explosive atmosphere)	<input type="checkbox"/>
If you ticked any of the above: complete 'confined space entry permit'.	<input type="checkbox"/>
<b>SLIP/TRIP</b>	<b>YES</b>
Stairs/steps?	<input type="checkbox"/>
Liquid or other substance on floor?	<input type="checkbox"/>
Restricted access / egress?	<input type="checkbox"/>
Fall at same level?	<input type="checkbox"/>
Items positioned in walkways?	<input type="checkbox"/>
Change in level of floor surface?	<input type="checkbox"/>

<b>BIOLOGICAL</b>	<b>YES</b>
Possible contact with bodily fluids of another person?	<input type="checkbox"/>
Possible contact with any living organisms e.g. insects?	<input type="checkbox"/>
Substance is of plant / animal origin e.g. decayed vegetation?	<input type="checkbox"/>
Substance looks like or smells mouldy?	<input type="checkbox"/>
<b>PRESSURE</b>	<input type="checkbox"/>
Pressure fluid storage systems (e.g. hydraulic lines) subject to damage?	<input type="checkbox"/>
Gas storage systems (e.g. cylinders / piping) subject to damage?	<input type="checkbox"/>
<b>PSYCHOLOGICAL</b>	<b>YES</b>
Persons report excessive time pressure to undertake task?	<input type="checkbox"/>
Contact with threatening or abusive persons?	<input type="checkbox"/>
<b>CONTRACTORS</b>	<b>YES</b>
Contractors not inducted?	<input type="checkbox"/>
Possible for casual or young staff to have missed training in this task?	<input type="checkbox"/>
<b>ELECTRICAL</b>	<b>YES</b>
Proximity of electrical equipment to water or steam (including cleaning)?	<input type="checkbox"/>
Possible damage to electrical lead or plug?	<input type="checkbox"/>
Inability to stop or isolate electricity in the event of an emergency?	<input type="checkbox"/>
Appliance is used in the vicinity of flammable liquids or explosive atmospheres?	<input type="checkbox"/>
Lack of isolation procedures during maintenance?	<input type="checkbox"/>
Contact made with appliance by wet hands?	<input type="checkbox"/>
Task in proximity to electrical conductors?	<input type="checkbox"/>
Electrical cord/s not tested and tagged?	<input type="checkbox"/>

<b>HOTWORK</b>	<b>YES</b>
Work activity will generate sparks	<input type="checkbox"/>
Work activity will produce an open flame?	<input type="checkbox"/>
Work activity will generate heat?	<input type="checkbox"/>
If any of the above has been ticked, complete a 'hotwork permit'.	<input type="checkbox"/>
Radiation YES	<input type="checkbox"/>
UV Exposure:	<input type="checkbox"/>
Work undertaken outdoors?	<input type="checkbox"/>
Electro-magnetic radiation Yes	<input type="checkbox"/>
Work near EME devices such as base stations or radio transmitters?	<input type="checkbox"/>
<b>ASBESTOS</b>	<b>YES</b>
Asbestos disturbed as a result of activity?	<input type="checkbox"/>
Asbestos product is observed as friable (easily crumbles)?	<input type="checkbox"/>
Asbestos product requires sealing, encapsulation or removal (if seriously deteriorated)?	<input type="checkbox"/>
Maintenance will be required to drill, saw, cut or disturb asbestos containing products?	<input type="checkbox"/>
Asbestos will be removed (license/approval required prior to proceeding)?	<input type="checkbox"/>
Demolition works required that will disturb asbestos (license required prior to proceeding)?	<input type="checkbox"/>
Identified asbestos not contained within asbestos register?	<input type="checkbox"/>
<b>LEGIONELLA MANAGEMENT</b>	<b>YES</b>
Work activity may require exposure to cooling towers, evaporative coolers, warm water systems	<input type="checkbox"/>
No sampling or maintenance records available for determining status of bacteria counts, corrosion etc.	<input type="checkbox"/>
<b>VIBRATION</b>	<b>YES</b>
Use of powered hand tools?	<input type="checkbox"/>
Team members report tingling/ numbness in the fingers when undertaking task?	<input type="checkbox"/>

<b>AIR QUALITY</b>	<b>YES</b>
Exposure to:	<input type="checkbox"/>
- Dusts including fibres (silica dust, metal, asbestos)	<input type="checkbox"/>
- Fumes (solvents)	<input type="checkbox"/>
- Mists (including acid/alkali)	<input type="checkbox"/>
- Vapours (solvents, degreasing)	<input type="checkbox"/>
- Gases (carbon monoxide, chlorine, hydrogen sulphide)	<input type="checkbox"/>
Do employees complain about dizziness, nausea, skin, eyes or respiratory irritation while working?	<input type="checkbox"/>
Does observed exposures warrant atmospheric testing and monitoring against exposure standards?	<input type="checkbox"/>
<b>ADMINISTRATIVE CHECKS</b>	<b>YES</b>
Training arrangements suitable & all personnel trained?	<input type="checkbox"/>
License or certificates of competency requirements have been met?	<input type="checkbox"/>
If a contractor activity, have all contractors been inducted?	<input type="checkbox"/>
Supervision measures suitable?	<input type="checkbox"/>
Safe Operating Procedure (SOP) has been completed?	<input type="checkbox"/>
All personnel have been trained in the SOP?	<input type="checkbox"/>
PPE requirements have been identified and implemented?	<input type="checkbox"/>
Does anything need to be added to the workplace inspection program?	<input type="checkbox"/>
Does anything need to be added to the maintenance schedule?	<input type="checkbox"/>
Are there special First Aid requirements?	<input type="checkbox"/>
Are there specific Emergency Response requirements?	<input type="checkbox"/>
<b>EQUIPMENT (PART OF PLAN/EQUIPMENT HAZARD CATEGORY)</b>	<b>YES</b>
Exposure to:	<input type="checkbox"/>
- Sharp objects (e.g. knives)	<input type="checkbox"/>
- Vibrating handheld equipment	<input type="checkbox"/>
- Hot handheld equipment	<input type="checkbox"/>

# RISK MATRIX

**STEP 1: CONSEQUENCE – WHAT IS THE LIKELY CONSEQUENCE/OUTCOME THAT WOULD RESULT FROM THE HAZARD?**

CONSEQUENCE	DESCRIPTION	
<b>4</b>	<b>CATASTROPHIC</b>	Death or permanent disability/ illness. Severe property and business loss, e.g. an explosion or bomb. Severe environment damage (contaminant release with detrimental effects).
<b>3</b>	<b>MAJOR</b>	Long-term illness or serious injury. Major loss of business capability for several days. Major property or environmental damage, (contaminant release with no detrimental effects)
<b>2</b>	<b>MODERATE</b>	Medical treatment or several days off work. Loss of business capability for one day. Property damage. Onsite contaminant release contained with outside assistance.
<b>1</b>	<b>MINOR</b>	First aid treatment. Negligible loss to business capability. Minor property damage. On-site contaminant release immediately contained.

**STEP 2: LIKELIHOOD - WHAT IS THE CHANCE OF AN INCIDENT OCCURRING AND THE CHOSEN SEVERITY (ABOVE) BEING THE OUTCOME? TAKE INTO ACCOUNT HOW FREQUENT THE CIRCUMSTANCES MAY OCCUR OR HOW OFTEN PEOPLE MAY BE EXPOSED.**

LIKELIHOOD	DESCRIPTION	
<b>4</b>	<b>VERY LIKELY</b>	Expected to occur often in our business (> 1 in 100 times) (e.g. spilling coffee walking with a full cup, cuts from sharp edges on packaging, banging thumb in cash register)
<b>3</b>	<b>LIKELY</b>	Expected to occur sometimes in our business (~ 1 in 1,000-10,000 times) (e.g. bleeding requiring band aid from sharp edges on packaging)
<b>2</b>	<b>UNLIKELY</b>	Foreseeable but not expected to occur in any given year in our business (~1 in 100,000 times) (e.g. infected finger due to sharp edges on packaging, racking collapse, amputation of finger through catching in cash register)
<b>1</b>	<b>VERY UNLIKELY</b>	Hardly ever expected to occur in our business (e.g. systemic injury due to blood infection initiated from cut finger, dust explosion )

**STEP 3: RISK RATING - MATCH UP THE CONSEQUENCE AND LIKELIHOOD RATINGS.**

CONSEQUENCE	LIKELIHOOD			
	4 Very likely	3 Likely	2 Unlikely	1 Very Unlikely
<b>4</b>	4 (H)	4 (H)	3 (S)	2 (M)
<b>3</b>	4 (H)	3 (S)	2 (M)	2 (M)
<b>2</b>	3 (S)	2 (M)	2 (M)	1 (L)
<b>1</b>	2 (M)	2 (M)	1 (L)	1 (L)

**STEP 4: ACTION GUIDE**


<b>RISK RATING</b>	<b>DESCRIPTION</b>
<b>4 (HIGH)</b>	<p><b>IMPLEMENT CONTROLS IMMEDIATELY</b></p> <p>The proposed task, process or equipment must not proceed or be used. Steps must be taken to reduce the risk as low as is reasonably practicable using the hierarchy of controls.</p>
<b>3 (SIGNIFICANT)</b>	<p><b>IMPLEMENT CONTROLS WITHIN FOUR WEEKS</b></p> <p>The proposed activity can only proceed if:</p> <ul style="list-style-type: none"> <li>I. The risk has been reduced to as low as is reasonably practicable using the hierarchy of controls</li> <li>II. Risk controls include those identified in legislation, Australian Standards, Codes of Practice and Compliance Codes.</li> <li>III. A Safe Operating Procedure has been prepared and implemented.</li> <li>IV. The manager / supervisor has reviewed risk controls and approved.</li> </ul>
<b>2 (MEDIUM)</b>	<p><b>IMPLEMENT CONTROLS WITHIN 3 MONTHS</b></p> <p>The task or process can proceed provided that,</p> <ul style="list-style-type: none"> <li>I. The risk level has been reduced to as low as is reasonably practicable using the hierarchy of controls;</li> <li>II. A safe operating procedure is being prepared; and</li> <li>III. Manager / supervisor has reviewed and approved risk assessment.</li> </ul>
<b>1 (LOW)</b>	<p><b>IMPLEMENT CONTROLS WITHIN 6 MONTHS</b></p> <p>Manage by local documented and routine procedures. Risk controls should be reviewed from time to time to determine the appropriateness of further risk controls in accordance with the hierarchy of controls.</p>



# APPENDIX 3 - SAMPLE HAZARD MANAGEMENT ANALYSIS

## HIERARCHY OF CONTROL

Always attempt to implement a control from the top of the hierarchy, as these controls are the most effective. You may need to consider more than one control.

MOST EFFECTIVE	ELIMINATE	Totally remove the hazard.
	SUBSTITUTE	Replace the hazard with something less hazardous.
	ENGINEERING	Place a guard on the equipment or change the process in some way.
	ADMINISTRATION	Training, procedures, signage, supervision.
	LEAST EFFECTIVE	PERSONAL PROTECTIVE EQUIPMENT

<b>TASK/ACTIVITY:</b> <i>Painting of Walls and Ceiling</i>	
<b>LOCATION:</b> <i>Office Building</i>	
<b>COMPLETED BY:</b> <i>John Citizen</i>	<b>CONSULTED WITH:</b>
<b>DATE:</b> <i>September 2008</i>	
<ol style="list-style-type: none"> <li>1. Identify each step in the task.</li> <li>2. Identify all hazards associated with each step. Record hazards in the table below. Use the Hazard Identification Checklist to identify physical or workplace environment hazards. Ensure relevant hazards are ticked in the hazard identification checklist.</li> <li>3. Identify all controls currently in place for each hazard (using the hierarchy of control) and record them in the table below.</li> <li>4. Identify the likely 'consequence' &amp; 'likelihood' (using the information on page 1) for each hazard. Determine the 'risk score' for each hazard using the grid shown and record it in the table below.</li> </ol> <p>Identify any future controls that may assist in reducing the risk further and record them below.</p>	

**LIST JOB STEPS HERE:** *Conventional application of paint on gypsum plasterboard interior walls (excl. ceiling) of the office building. Job Steps include: surface preparation (incl. hand sanding); paint mixing; application of base coat and 2 top coats.*

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<b>JOB STEP OR WORK ENVIRONMENT</b>	<b>HAZARD &amp; ASSOCIATED RISK</b>	<b>EXISTING RISK CONTROL MEASURES</b>	<b>RISK RATING (considering existing controls)</b>	<b>POSSIBLE FUTURE RISK CONTROLS</b>
Paint preparation & mixing	Sprains and strains from boxing process	Paints are usually supplied ready mixed but require mixing before use	Medium	As far as possible ensure all mixing and colour matching is carried out the paint supplier
Application of paint (using roller) coats	Sprains and strains from using roller	For large flat areas use of roller is conventional	Medium	Use a handle extension for high section of walls/ Alternatively use trestle to access high areas
Environmental pollution to water ways due to cleaning and disposal of excess paint and other materials	Washing of rollers and trays	Nil	Low	Remove excess paint off the roller by applying onto a newspaper/ Wash roller and tray into an empty container/  Allow waste and wash water mix to settle and pour over ground and allow excess to dry before disposing

# Note: It is expected that all paints should be mixed prior to application.

- See also Safe Work Method Statements (SWMS) at <http://www.mpav.com.au/membership/safe-work-method-statementsjsa/>

# APPENDIX 4 - GHS PICTOGRAMS

GHS PICTOGRAMS AND HAZARD CLASSES		
 <ul style="list-style-type: none"> <li>▪ Oxidisers</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Flammables</li> <li>▪ Self reactives</li> <li>▪ Pyrophorics</li> <li>▪ Self-heating</li> <li>▪ Emits flammable gas</li> <li>▪ Organic Peroxides</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Explosives (Divisions 1.1 to 1.4 only)</li> <li>▪ Self reactives</li> <li>▪ Organic peroxides</li> </ul>
 <ul style="list-style-type: none"> <li>▪ Acute Toxicity (Severe)</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Corrosive to metals</li> <li>▪ Skin Corrosion</li> <li>▪ Serious eye damage/ eye irritation</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Gases under pressure</li> </ul>
 <ul style="list-style-type: none"> <li>▪ Carcinogen</li> <li>▪ Respiratory sensitizer</li> <li>▪ Reproductive toxicity</li> <li>▪ Target Organ toxicity</li> <li>▪ Mutagenicity</li> <li>▪ Aspiration toxicity</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Aquatic Toxicity (Acute)</li> <li>▪ Aquatic Toxicity (Chronic)</li> </ul>	 <ul style="list-style-type: none"> <li>▪ Irritant</li> <li>▪ Dermal sensitizer</li> <li>▪ Acute toxicity (harmful)</li> </ul>

	<p><b>CLASS 1</b></p> <p><b>EXPLOSIVE</b></p> <p>These substances or articles are used to produce explosions in work such as earthmoving or demolition, or a pyrotechnic effect (e.g. fireworks displays).</p> <p>Examples: Gunpowder, gelignite, fireworks, fuses, detonators.</p>
	<p><b>CLASS 2.1</b></p> <p><b>FLAMMABLE GAS</b></p> <p>These are gases which can ignite in air on contact with a source of ignition. Most flammable gases are heavier than air, and will flow to low areas, such as drains, pits and valleys.</p> <p>Examples: Acetylene (dissolved), LPG (liquefied petroleum gas), many aerosols.</p>
	<p><b>CLASS 2.2</b></p> <p><b>NON-FLAMMABLE NON-TOXIC GAS</b></p> <p>The compressed and sometimes liquefied gases in this class are not flammable when exposed to ignition sources. However, many can cause suffocation by diluting or displacing oxygen in the air.</p> <p>Most compressed non-flammable gases are heavier than air (some up to seven times heavier) and will flow to low areas.</p> <p>Some of these gases are also oxidizing agents such as oxygen (see Class 5.1) so have a subsidiary danger.</p> <p>Examples: Carbon dioxide, compressed air, (refrigerated liquid), nitrogen, helium.</p>
	<p><b>CLASS 2.3</b></p> <p><b>TOXIC GAS</b></p> <p>These are gases which are likely to cause death or serious injury if they are inhaled.</p> <p>Most toxic gases have an unpleasant odour which alerts to their presence. Some of these gases are also flammable (see Class 2.1), oxidizing agents (see Class 5.1), or corrosive (see Class 8) as subsidiary dangers. In some cases, a toxic gas may be both an oxidizing agent and corrosive, e.g. nitrogen oxide.</p> <p>Most toxic gases are much heavier than air, and will flow to low areas.</p> <p>Examples: Chlorine (gas), methyl bromide, anhydrous ammonia.</p>
	<p><b>CLASS 3</b></p> <p><b>FLAMMABLE LIQUID</b></p> <p>The vapours from these liquids can ignite in air on contact with a source of ignition. These liquids have a flashpoint not greater than 60.50C.</p> <p>The vapours from many Class 3 substances have an affect similar to narcotics. Prolonged inhalation may result in unconsciousness or even death.</p> <p>Many paints and varnishes are in Class 3.</p> <p>Examples: Petrol, kerosene, paints, thinners.</p>

	<p><b>CLASS 4.1</b></p> <p><b>FLAMMABLE SOLID</b></p> <p>These solids are easily ignited by external sources, such as sparks and flames.</p> <p>They are also readily combustible, and are likely to cause or contribute to fire when subjected to friction.</p> <p>They may also be self-reactive (see Class 4.2).</p> <p>Examples: Sulfur, red phosphorus, matches.</p>
	<p><b>CLASS 4.2</b></p> <p><b>SPONTANEOUSLY COMBUSTIBLE</b></p> <p>The substances in this class are likely to heat spontaneously and ignite.</p> <p>Some are likely to ignite spontaneously when wetted by water or moist air (see Class 4.3).</p> <p>Some may also give off toxic gases (see Class 2.3) when in a fire.</p> <p>Examples: Carbon, white phosphorus, calcium dithionite.</p>
	<p><b>CLASS 4.3</b></p> <p><b>DANGEROUS WHEN WET</b></p> <p>These solids or liquids give off dangerous quantities of flammable or toxic gases when in contact with water. The heat from this reaction may cause these gases to spontaneously ignite.</p> <p>Some of these substances also give off toxic gases (see Class 2.3) when in contact with moisture, water or acids.</p> <p>Examples: Calcium carbide, aluminium phosphide.</p>
	<p><b>CLASS 5.1</b></p> <p><b>OXIDIZING AGENT</b></p> <p>These substances are not necessarily combustible by themselves. But they may yield oxygen which increases the risk and intensity of fire in other materials with which they come into contact.</p> <p>Oxidizers may cause fire when brought into contact with finely divided combustible materials and may make the fire burn with almost explosive violence.</p> <p>Examples: Calcium hypochlorite (swimming pool 'chlorine'), ammonium nitrate.</p>
	<p><b>CLASS 5.2</b></p> <p><b>ORGANIC PEROXIDE</b></p> <p>Organic peroxides may be either solid or liquid. They are thermally unstable and likely to react dangerously with other substances.</p> <p>Some of these substances need to be kept under controlled temperature conditions during storage and transport. In addition some are sensitive to impact or friction.</p> <p>Organic peroxides contribute oxygen to a fire (see Class 5.1), and may also be flammable (see Class 3 or 4) or combustible (see Class 4.2) as subsidiary dangers.</p> <p>Each organic peroxide product is given a generic name starting with "Organic Peroxide, Type. . ." which appears on the label.</p>

	<p><b>CLASS 6.1</b></p> <p><b>TOXIC</b></p> <p>Toxic substances can be either solid or liquid. They are likely to cause death or serious injury if swallowed, inhaled or brought into contact with skin.</p> <p>Nearly all toxic substances give off toxic gases (see Class 2.3) when in a fire or when heated to decomposition.</p> <p>Some toxic substances are also flammable (see Class 3) or corrosive (see Class 8), as subsidiary dangers.</p> <p>Examples: Calcium cyanide, lead arsenate, many pesticides.</p>
	<p><b>CLASS 7</b></p> <p><b>RADIOACTIVE</b></p> <p>This class includes materials or combinations of materials which spontaneously emit harmful radiation.</p> <p>Class 7 dangerous goods must be transported in compliance with the Code of Practice for the Safe Transport of Radioactive Substances.</p> <p>Each substance is given a generic name starting with "Radioactive Material", which appears on the label.</p>
	<p><b>CLASS 8</b></p> <p><b>CORROSIVE</b></p> <p>These solids or liquids can damage living tissue.</p> <p>Many are sufficiently volatile to give off vapour irritating to the nose and eyes. A few can produce toxic gas when decomposed by very high temperatures (see Class 2.3). Some are toxic and poisoning may result if they are swallowed.</p> <p>If they leak during transportation many corrosives will damage or even destroy other goods or the vehicle.</p> <p>Class 8 includes acids and alkalis which can react violently when mixed.</p> <p>Examples: Hydrochloric acid, sodium hydroxide, acetic acid.</p>
	<p><b>CLASS 9</b></p> <p><b>MISCELLANEOUS DANGEROUS GOODS</b></p> <p>These are substances and articles which present a danger and are not covered by other classes.</p> <p>Included in this class are liquids transported at a temperature greater than 1000°C and solids transported at more than 240°C.</p> <p>Examples: Dry ice, asbestos, elevated temperature liquids such as hot bitumen.</p>



# APPENDIX 6 - ELECTRICAL SAFETY CHECKLIST

DATE ASSESSMENT COMPLETED: \_\_\_\_\_

COMPLETED BY: \_\_\_\_\_

CONSULTED WITH: \_\_\_\_\_

Item	YES	NO	REQUIRED ACTION	PERSON RESPONSIBLE	COMPLETION DATE
1. Are all overhead power lines on the property clear of mobile machinery? See previous no-go zone information.	→		Take measurements where necessary.  Ensure power lines are raised or put underground.  Power lines can sag in hot weather.		
2. Are Residual Current Devices (RCD) installed in the electrical power system? Check the switch board. An RCD is identified by a test button.	→		Consider RCD installation – check with electrician and in the short term use portable RCDs in each circuit.		
3. Have electrical leads been tested and tagged according to recommended standards? Not a legal requirement on a horticulture property but a Standard that is recommended.	→		Take steps to have electrical leads and equipment tested and tagged or at least regularly checked.  Remove damaged or faulty leads and power tools from service.		
4. Is your electrical system maintained by a registered electrician?	→		Always use a registered electrician.		
5. Have workers been trained to use electrical equipment safely?	→		Regardless of what qualifications a worker holds, they must still be trained to use the equipment in that particular workplace.		
6. Are electrical leads correctly routed and positioned when in use?	→		Leads should be located above the workers where possible.		
7. Are you aware of the location of any underground power cables? Also consider Telstra cables, water pipes and gas lines.	→		Check with authorities.  “Dial Before You Dig” Phone 1100, Fax 1300 652 077		







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