

MANAGING RISKS OF HAZARDOUS CHEMICALS

We have the **Primary duty, under the WHS Act** to ensure, so far as is reasonably practicable, that workers and other persons are **not exposed to health and safety risks** arising from the business or undertaking. This duty includes the **safe use, handling and storage of all substances**.

There are more specific requirements relating to Hazardous Chemicals under the Workers Health and Safety (WHS) Act and Regulations, including:

We **must**:

- Manage risks to health and safety associated with using, handling, generating and storing of hazardous chemicals at a workplace. Carry out periodic **Risk Assessments and implement control actions for those identified risks**.
- Review and if necessary revise control measures.
- Obtain the current **Safety Data Sheet (SDS)** from the manufacturer, importer or supplier of the chemical when or before it is first supplied for use at the workplace, or as soon as practicable after the hazardous chemical is first supplied to the workplace **but before** the hazardous chemical is used at the workplace.
- Ensure the SDS is readily accessible to a worker who is involved in using, handling or storing the hazardous chemical at the workplace and an emergency service worker, or anyone else, who is likely to be exposed to the hazardous chemical at the workplace
- Ensure that a hazardous chemical is correctly labelled in accordance with the GHS and it complies with Part 3 of Schedule 9 of the WHS Regulations.
- Identify any risk of a physical or chemical reaction in relation to a hazardous chemical used, handled, generated or stored at a workplace
- Ensure that, when storing flammable or combustible materials at the workplace, they are kept at the **lowest practicable quantity**.
- If there is a possibility of fire or explosion in a hazardous area being caused by an ignition source, ensure that the ignition source is not introduced into the area (from outside or within the space). We must follow all Local Laws, Code of Practices and Standards (such as AS 1940-2004 - in relation to the storage and handling of flammable and combustible liquids and AS 3833-2007 - in relation to the storage and handling of mixed classes of Dangerous goods) when we store and manage such Hazardous Goods in our Facilities.

- Ensure that the workplace is provided with adequate **fire protection**, fire-fighting equipment and emergency equipment that is designed and built for the types of hazardous chemicals used, handled and stored at the workplace, and the conditions under which they are used, handled, generated or stored
- Prepare a Site specific **Emergency Plan** if the quantity of a class of hazardous chemical used, handled, stored or generated at a workplace exceeds the manifest quantity for that hazardous chemical, **including providing a copy of the Emergency Plan to primary Emergency Services Organisation like the Fire Brigade.**
- Ensure that no-one at the workplace is exposed to a substance or mixture in an airborne concentration that exceeds the Exposure Standard for that substance or mixture.
- Ensure, so far as is reasonably practicable, that if there is a risk from a spill or leak of a hazardous chemical, a **Spill Containment System** is provided and is provided in each part of the workplace where the hazardous chemical is used, handled, generated or stored.
- Provide any **supervision** to a worker that is necessary to protect the worker from risks arising from the work at the workplace if the worker uses, handles, generates or stores a hazardous chemical or operates, tests, maintains, repairs, or decommissions a storage or handling system for a hazardous chemical.

WORK-RELATED HAND AND WRIST INJURIES IN AUSTRALIA

Common occurrences are:

About 30% of injuries resulting from a fall occurred when the person **fell from a ladder**.

Falls from trucks involved about another 10%.

There were many incidents involving **powered hand tools**, with the main circumstances described being repetitive movements causing wrist injury, lacerations due to pieces of the **Equipment breaking** (e.g. grinder blades, compressors), or damage to the hand or wrist when the tools locked or “kicked back” and jerked violently.

Knife injuries commonly occurred when the injured person was cutting food or cutting materials.

Hot oil is the most common single cause of burns in Emergency Department and workers' compensation injuries, usually in employees of the accommodation, café and restaurant industry. At our Plants we also handle **Alkali, Corrosives and Strong Acids which can cause serious burns.**

Exposure to hot water or steam was also common, (like in our Admixture Plants) but usually while cooking or reheating food.

[Welding](#) was another common activity, particularly in the manufacturing industry that resulted in burns to the hand or wrist.

Needle stick injuries accounted for about 10% of the emergency department presentation for cutting or piercing injuries. Not surprisingly, most of these involved health workers. The manufacturing industry had many incidents that involved cutting, slicing and sawing equipment, as well as presses, printers and conveyors. The majority of these involved problems with [missing or defective guards, and/or occurred while guards were being cleaned or equipment was being cleaned or maintained](#), during which time the guards had been removed.

A common description was that the injured worker had been distracted at the time and put his/her hand in a position where it could come into [contact with moving parts of the machinery](#).

Another common occurrence was the person wearing gloves and the [glove becoming caught in the equipment, commonly pulling the fingers](#) or hand into contact with the machinery.

Other common injury circumstances involved locking or jamming power tools and sharp-edged hand tools or knives. The main injury circumstances in the construction industry involved powered and unpowered hand tools and knives.

Conclusion:

Work-related hand and wrist injuries are the most common work-related injury type and are an important problem in the Australian workforce.

They are a very common cause of work-related injury presentation to Emergency Departments in Australia and also result in about [8400 admissions to hospital per year](#).

The injuries range from being relatively minor to very severe; most commonly involving the fingers, with open wounds the most common injury type and amputation the most severe injury type. Using a sharp edged tool, operating powered plant or machinery which was not properly guarded, using a powered hand tool or appliance which was not properly guarded or which locked, and preparing food with an appliance or a knife, are the most common activities associated with injuries to the hand and wrist.

The manufacturing industry, wholesale and retail trade industry and the construction industry appear to be the industries where workers most commonly sustain hand and wrist injuries in the course of work. This is probably due to the tasks being undertaken and the equipment being used which has the [potential to exert large forces](#) directly or indirectly to the hand and wrist.

Guarding was a problem in a considerable minority of the injuries, as was locking or jamming power tools. This suggests there are design issues that could usefully [form a focus of preventative activity](#). [A Robust Check and Preventive Maintenance System is Paramount](#).