

## Workplace safety - hazardous substances

Exposure to chemicals commonly used in workplaces can lead to a variety of short and long term health effects such as poisoning, skin rashes and disorders of the lung, kidney and liver. A quarter of all Victorian employees regularly use hazardous substances such as chemicals, flammable liquids and gases in their work.

A hazardous substance can take many forms – gas, powder, liquid, solid or dust. The product may be pure or diluted.

Manufacturers and importers of hazardous substances are legally obliged to include warning labels and Material Safety Data Sheets (MSDS) with their products. This information offers advice on safe handling practices.

### Common hazardous substances

Many industrial, agricultural and medical organisations use hazardous substances. The degree of hazard depends on the concentration of the chemical.

Common hazardous substances in the workplace include:

- Acids
- Caustic substances
- Disinfectants
- Glues
- Heavy metals, including mercury, lead, cadmium and aluminium
- Paint
- Pesticides
- Petroleum products
- Solvents.

### Possible side effects

Health effects depend on the type of hazardous substance and the level of exposure (concentration and duration). A hazardous substance can be inhaled, splashed onto the skin or eyes, or swallowed. Some of the possible health effects can include:

- Poisoning
- Nausea and vomiting
- Headache
- Skin rashes, such as dermatitis
- Chemical burns
- Birth defects
- Disorders of the lung, kidney or liver
- Nervous system disorders.

### Labels and Material Safety Data Sheets (MSDS)

Manufacturers and importers of hazardous substances are required by law to provide warning labels and MSDS with their products.

Employers must ensure that the MSDS for each hazardous substance used in the workplace is available to workers, and that a central register of hazardous substances is established. The warning label on a product might feature cautionary words such as 'corrosive', 'poison' or 'hazardous'.

The MSDS lists important information on handling the product safely, including:

- Potential health effects
- Precautions for use
- Safe storage suggestions
- Emergency first aid instructions
- Contact numbers for further information.

## Reducing exposure

Suggestions on reducing exposure to hazardous substances in the workplace include:

- Where possible, perform the task without using hazardous substances.
- Where possible, substitute hazardous substances with less toxic alternatives.
- Hazardous substances should be isolated from workers in separate storage areas.
- Storage areas should be separately ventilated from the rest of the workplace.
- Workers should be thoroughly trained in handling and safety procedures.
- Personal protection equipment such as respirators, gloves and goggles should be worn.
- The workplace should be regularly monitored with appropriate equipment to track the degree of hazardous substance in the air or environment.
- Workers should be consulted regularly to maintain and improve existing safety and handling practices.

## Written records

Certain records have to be maintained if hazardous substances are used in the workplace, including:

- Details of risk assessments
- Results of air and environment tests, if required
- Details of health monitoring of workers, if required.

## Professional advice

Organisations such as WorkSafe Victoria can offer valuable information on how to reduce the risks of working with hazardous substances. Publications include:

- *The Code of Practice for Hazardous Substances*
- A training kit, tailored for small businesses.

## Medical help

If you suspect you have been exposed to hazardous substances, see your doctor immediately for treatment, information and referral. Notify your employer. Try not to handle the hazardous substance again.

In an emergency dial triple zero (000) for an ambulance.

## Where to get help

- Your workplace occupational health and safety coordinator
- Your doctor
- WorkSafe Victoria Tel. (03) 9641 1444 or 1800 136 089 (toll free) - for general enquiries
- WorkSafe Victoria Emergency Response Line Tel. 13 23 60 - to report **serious workplace emergencies**, seven days, 24 hours

- Victorian Poisons Information Centre Tel. 13 11 26 – seven days a week, 24 hours a day – for advice about poisonings, suspected poisonings, bites and stings, mistakes with medicines and poisoning prevention advice.
- Environment Protection Authority Tel. (03) 9695 2722 – to dispose of industrial waste
- In an emergency, call triple zero (000).

## Things to remember

- Exposure to chemicals commonly used in workplaces can have short and long term health effects.
- Manufacturers and importers of hazardous substances must provide warning labels and MSDS with their products.
- Organisations such as the WorkSafe Victoria can offer information and advice on how to reduce the risks of working with hazardous substances.

**This page has been produced in consultation with, and approved by:**

Department of Health - Workforce Leadership and Development

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