



How to identify airborne contaminants that can cause harm to manufacturing workers

As a person conducting a business or undertaking (PCBU) in the manufacturing industry, you must protect your workers from breathing in airborne contaminants.

Workers in the manufacturing industry can be exposed to a wide range of hazardous dusts, gases, fumes, mists and vapours including:

- airborne flour dusts from mixing ingredients in food manufacturing
- dusts created from wood and textile manufacturing
- welding fumes from metal and machinery manufacturing
- chemical vapours in rubber and chemical manufacturing.

The first step is to identify where these hazards are in your workplace.

This is part of your duty of care to minimise health and safety risks at your workplace as much as you reasonably can.



Breathing in airborne contaminants such as dusts, gases, fumes, mists and vapours at work can cause harm. Being exposed to these hazards can lead to conditions like asthma, or diseases like lung cancer and hard metal pneumoconiosis.

How to identify hazards:



Look at your workplace

Observe your workplace and how your workers conduct their work to help identify the presence of airborne contaminants. You should look at what types of machinery and equipment are used, and how they are used, what hazardous chemicals are around, the general state of tidiness/maintenance, and the level of mechanical or natural ventilation.

Look to see if:

- residues are on machinery, work surfaces, walls, windows or the ground
- any tools have activated warning lights, that indicate the tool or filters are not working as intended
- workers are using control measures appropriately, such as on-tool dust extraction and wearing suitable respiratory protection equipment.

If you can see or smell something in the air, your workers may also be breathing it in. However, some hazards are invisible and odourless.

It is important to consider other people around the workplace who also may be impacted by hazards. This could include tradespeople, suppliers, contractors, and on-site office staff.



Talk and consult with your workers

Your workers or your health and safety representatives (HSRs) may know what work processes create airborne contaminants, how much is produced and how often it happens. They may also be able to tell you how work practices could be changed to manage the risk of breathing it in. Your workers can also tell you and the HSRs if certain tasks make them cough, itch or feel unwell.



Read labels and safety data sheets

Some materials used in your workplace may contain or generate a hazardous chemical. Hazardous chemicals are required to have a safety data sheet containing health and physical hazards information. Look for labels on other materials too, as these may also contain health information.

For more information, read our [Using safety data sheets: identifying the hazards that can cause occupational lung disease](#) information sheet.



Talk with your work health and safety (WHS) regulator

Your [WHS regulator](#) is here to help. You can talk with them if you have questions or need guidance. They can provide you with information and advice to help you identify the hazards at your workplace.

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How to identify hazards continued:



Engage a professional

A certified occupational hygienist can help identify hazards in your workplace. You can search for occupational hygienists near you on the [Australian Institute of Occupational Hygienists' website \(aioh.org.au\)](https://aioh.org.au).

Your industry association may be able to help you identify the hazards at your workplace or suggest who can assist you.



Reassess

Managing WHS risks is an ongoing process. When you introduce new materials or processes into the workplace, you must reassess for any new or changed airborne contaminants. Changes in processes or products mean that you should regularly inspect your workplace to identify if these changes present a new or changed hazard to the health and safety of your workers.



If a hazard is identified, you should conduct a workplace risk assessment.

For more information, read our checklist '[How to identify airborne contaminants that can cause harm to manufacturing workers](#)' at swa.gov.au/airborne-contaminants.