

Lead exposure and lead risk jobs

Lead is a metal obtained from mining lead ore, which is used in a number of forms including pure metal, alloys (mixtures of metals) and as lead compounds. It has many uses including vehicle batteries, solder, paint pigments and as a stabiliser to protect plastic from sun damage.

Dangers of Exposure to Lead

Exposure to lead has long been known to exert toxic effects on the human body. Lead particles can be inhaled through dust or fumes or swallowed through eating contaminated food or smoking with contaminated fingers. Exposure to lead can have a broad range of health effects depending on the amount of lead present and the length of exposure.

Lead Risk Jobs

The *Workplace Health and Safety Regulation 2008* Part 17 Lead, requires the department to provide Workplace Health and Safety Queensland with information about lead-risk jobs and lead process activities. A list of lead process activities are provided in Schedule 18 of the *Workplace Health and Safety Regulation 2008*. A lead risk job means a job in which: □ a person may be exposed to lead, and

- a person's blood lead level does, or may reasonably be expected to, equal or exceed:
 - for a female who is pregnant or breast feeding - 0.72µmol/L (15µg/dL)
 - for a female with a reproductive capacity - 0.97µmol/L (20µg/dL)
 - for anyone else - 1.45 µmol/L (30µg/dL).

Even though some departmental staff may undertake activities involving exposure to lead for example soldering, science experiments, and plumbing, the majority of activities would **not** meet the criteria prescribed in the definition above, provided:

- quantities handled and exposure times are minimal
- appropriate PPE is provided and used
- good personal hygiene practices are applied.

Also, there should be no need to undertake any air monitoring or health surveillance provided the exposure risk is controlled appropriately using the safety precautions listed below.

Safety Precautions

To prevent exposure to lead, staff should:

- conduct a risk assessment to identify the hazards and controls and review controls
- use alternatives to lead (e.g. acrylic coated flashing, lead free paint and PVC, tin or silver solder, etc.)
- undertake good hygiene practices (e.g. hand washing before eating, toilet, etc)
- use appropriate safety equipment and personal protective equipment (e.g. fume/dust extraction, gloves, etc.)
- keep a register of all hazardous materials (including lead compounds).

More Information

- Workplace Health and Safety Queensland – ph 1300 362 128
- [Workplace Health and Safety Queensland – Working with Lead](#)
- Safe Work Australia [National Code of Practice for the Control and Safe Use of Inorganic Lead at Work](#)

