

Relevant Legislation

Control of Lead at Work Regulations (CLAW) 2002

General

Lead is a substance that has long been known to have the potential to damage health. Excessive exposure to lead can result in lead poisoning.

CLAW is concerned with the risks associated with handling, processing, repairing, maintaining, storing or disposing of lead at work. This includes alkyls, alloys, any compounds of this element and lead as a constituent of any substance or material.

Examples of work involving lead are:

- The use of pigments and colour.
- Glazes and transfers in pottery.
- Thermoplastic road marking (yellow lines).
- Bridge repair or demolition.
- Vehicle radiator repair.
- Paint spraying of vehicles.
- Paint stripping.
- Replacing old pipes and roof flashing.

This above list is not exhaustive.

The regulations only apply where the lead is in a form that can be inhaled, ingested or absorbed, as follows:

- Inhaled – lead dust, fume or vapour
- Ingested – lead powder, dust, paint or paste
- Absorbed through the skin – lead alkyls or lead naphthenate

Some materials may contain lead but it cannot be inhaled, ingested or absorbed because of the nature of the work. For example, handling finished pottery products containing lead. In this case the regulations do not apply.

There are circumstances where lead must not be used. For example, no lead glaze should be used in the manufacture of pottery (other than leadless glaze or a low solubility glaze).

Risk Assessment

An assessment should be undertaken on the use of lead at work.

The requirements of CLAW only apply if the assessment identifies that the employees' exposure to lead is significant. This is the case if one of the following three conditions applies:

1. Exposure exceeds half the occupational limit for lead
2. There is a substantial risk of the employee ingesting lead
3. If there is a risk of the employee's skin coming into contact with lead alkyls or any other substances containing lead that can be absorbed through the skin

As well as the standard triggers for a risk assessment review, CLAW stipulates that the assessment needs to be reviewed if monitoring or medical surveillance indicates that an action level for blood-lead concentration has been exceeded.

Control Measures

If working with lead cannot be eliminated or substituted then the following control measures need to be applied:

- Totally enclose the process and handling system.
- Design the work processes so that the production or generation of dust, fume and vapour is kept to a minimum. This can include modifying a process or changing its conditions, such as temperature or pressure, to reduce emissions. It could also cover the need for maintenance staff to go into an area.
- Use suitable work equipment and materials.
- Implement maintenance procedures and testing.
- Install ventilation, which can involve partial enclosures, local exhaust ventilation or general ventilation.
- Introduce organisational measures, such as safe working procedures, safe handling, storage, transport of lead and materials that contain lead.
- Establish a regime for regular cleaning of contamination from walls, surfaces or their disinfection.
- Impose a prohibition on eating or drinking in areas contaminated with lead.

- Provide hygiene measures, such as adequate measures for washing, changing and storage of clothing including laundering contaminated clothing and separate accommodation for clothing worn at work, which may be contaminated by work clothing.
- Provide PPE where control of exposure cannot be controlled by other means.
- Mark containers and pipes that are used for lead so that the contents are clearly identifiable.

Eating, Drinking and Smoking

Personal hygiene standards are extremely important in controlling lead absorption.

Employers need to make sure that employees do not eat, drink or smoke in any place that is liable to be contaminated by lead. Washing facilities need to be provided.

Employees should not eat, drink or smoke in places that they believe may be contaminated by lead.

Maintenance, Examination and Testing of Control Measures

Any plant and equipment used to control exposure to lead needs to be maintained and cleaned. Local exhaust ventilation needs to be examined at least once every 14 months. Any respiratory protective devices need to be tested at appropriate intervals.

Maintenance, examination and testing records need to be kept for at least 5 years

Personal Protective Equipment

Any personal protective equipment (PPE) needs to be stored in a defined place, checked at suitable intervals and repaired or replaced if defective. If PPE is contaminated by lead it should be removed on leaving the work area and kept separate from uncontaminated clothing and equipment.

Air Monitoring

Air monitoring should be carried out as part of the risk assessment to determine if an employee's exposure is significant. However, for the majority of this authority's undertaking it is unlikely that this will be necessary.

Health Surveillance

If the assessment identifies that the employee's exposure to lead is significant then health surveillance is required. Again, within this authority such activities are unlikely other than a very small number of operatives working within Highways Delivery.

Information, Instruction and Training

Employees need to be provided with information, instruction and training on the following:

- The possible risks to health from exposure to lead
- Details of the appropriate occupational exposure limit for lead
- The results of the employer's assessment of the work
- The appropriate precautions and actions they should take to protect themselves and other employees from exposure to lead
- The results of any air monitoring and health surveillance that relate to them personally.

Emergency Procedures

In the unlikely event that an employee may be exposed to lead or a lead compound well beyond normal working conditions, additional emergency procedures will be needed. When undertaking risk assessments for such activities further advice should be sought from the Health and Safety Team.

Arrangements within Children's Services

CLAW should not have a significant effect in schools, though some examples of school activities that involve lead are given below.

Compounds of lead are used for teaching purposes in school science, invariably during a few well-controlled science activities. Schools should continue to follow the detailed guidance given in standard national texts produced by CLEAPSS and the ASE. When line painting is being undertaken in yards and halls, lead based paints may be used for this purpose, as no other alternatives are available.

Risk assessments should be undertaken when stripping of paint in older buildings is undertaken as this activity could result in one-off exposure of staff or pupils to old layers that might contain lead.

Old stocks of lead-based products, such as glaze, are occasionally found in Art and Design & Technology departments. These should have been disposed of some years ago. Given that suitable alternatives to lead are available, arrangements should be made to dispose of them via the annual waste chemical collection.