Respiratory Hazards – Lead

The hazard and its health effects

Lead's unique properties have ensured its use in manufacturing and construction processes for centuries and its presence is still very much in evidence today.

Health Effects

Although most lead will circulate in the blood and pass through naturally, some will be deposited and stored. If high levels build up, symptoms such as headaches, constipation and anaemia may occur.

- Inorganic lead, the solid metal type, is absorbed through the inhalation of dust, fumes and vapour, or by ingestion.
- Organic leads (alkyls) such as petrol or paint additives, can also be absorbed through skin.

Continued exposure could lead to kidney, brain or nerve damage, such as the incapacitating 'wrist-drop'. Organic lead poisoning is also associated with psychiatric problems such as insomnia and mania.

Legislation

The Control of Lead at Work Regulations (CLAW) 2002 were drafted using the most up-to-date research methods, allowing the most precise identification yet of:

- Problem areas
- Who is at risk
- How to reduce or eliminate exposure.

Employer Responsibilities

Requirements for a risk assessment include testing for significant exposure, identification, monitoring, medical examinations and reviews of controls, methods, ventilation and production. Respiratory Protection is recommended only after all other control measures have been implemented, but as lead is present in so many areas, including smelting, ceramics, some paints, scrap recovery and enamelling, it makes Respirator selection particularly difficult.

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