

Lead Lined Sheetrock


What's covered

- A. Hazard Assessment
- B. Work Practice Controls
- C. Respiratory Protection
- D. Protective Clothing
- E. Housekeeping
- F. Hygiene Practices
- G. Training
- H. Planning



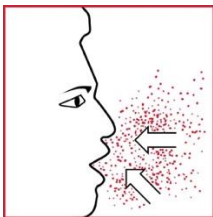
Hazard Assessment

Installation of Lead Lined Sheetrock

- ▶ Exposure to lead during installation of lead lined sheetrock is minimal, however since lead is present, at a minimum, OR-OSHA requires a lead program to be in place.
 - ▶ Employees must be informed of the hazards and trained on best practices to perform this scope.
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Hazard Assessment

Ways Lead Can Enter the Body




- ▶ Inhalation - Breathing lead fumes or dust. This is the most common route of entry in the workplace.



- ▶ Ingestion - Swallowing lead dust via food, drinks etc.

Hazard Assessment

Health Effects

- ▶ Lead which is inhaled or ingested gets into the bloodstream.
 - ▶ Can be circulated throughout your body.
 - ▶ Some is excreted while some remains in organs and body tissues.
 - ▶ If exposure continues, the amount stored in your body will increase if you are absorbing more lead than your body is excreting.
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Hazard Assessment

Health Effects

During prolonged chronic exposure, many body systems can be affected by lead, including:

- ▶ brain, kidneys
- ▶ muscles, bones
- ▶ blood forming & reproductive systems

Reported acute health effects include flu-like illness, coma and death.

Hazard Assessment

Airborne Lead Report

Installation of Lead Lined Sheetrock

Table I
Fred Shearer & Sons, Inc.
May 19, 2010

Providence Portland Cancer Center, Oregon


Airborne Lead Exposure Results – During Installation of Lead Lined Sheetrock

Sample ID	Description	Type of sample	Results	OR-OSHA 8hr-PEL
#48952- Paul Stadick time sampled: 278 min	Personal sample during installation of lead lined sheetrock	Inorganic lead	11 µg/m ³	50 µg/m ³ *
		Total Particulate	1.8 mg/m ³	10.0 mg/m ³
##48924 – Jeff Brewster time sampled: 279 min	Personal sample during installation of lead lined sheetrock	Inorganic lead	11 µg/m ³	50 µg/m ³ *
		Total Particulate	1.6 mg/m ³	10.0 mg/m ³


*OR-OSHA also has an Action Level of 30 µg/m³

Work Practice Controls

Engineering Controls


- ▶ Shrouded tools provide exhaust ventilation at the point where the dust is generated (point of operation.)
 - ▶ High Efficiency Particulate Air (HEPA) filters on vacuums can capture very small dust particles with a 99.97% efficiency.
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Work Practice Controls

- ▶ Wear protective clothing to avoid getting dust on your clothes and then bringing it home to spouse and children.
 - ▶ Do not eat, or drink in areas where lead is present.
 - ▶ Wash hands and face after lead work
 - ▶ Remove protective clothing, and discard before leaving room.
 - ▶ After leaving task area, immediately wash hands, arms and face in the bathroom.
 - ▶ When finished, wipe hand tools with Trisodium Phosphate (TSP) wipes to remove lead residue.
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Hazard Assessment

Lead Affects on Children

- ▶ Lead exposure occurs by touching, swallowing, or breathing in lead or lead dust.
 - ▶ Even low levels of lead in a child's blood can have negative affects on their health.
 - ▶ Children under the age of 6 are most vulnerable.
 - ▶ It is very important to remove boots and work clothes before entering your home.
 - ▶ Work clothes should be laundered separate from other clothes. Boots should be thoroughly cleaned.
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Respiratory Protection

- ▶ Used when other types of controls are not sufficient to reduce lead exposure to below PEL.



- ▶ Additional training is required to wear a half-face respirator.



Protective Clothing


PPE (Personal Protective Equipment)




- ▶ Used to keep lead dust off your body and clothes



Housekeeping

- ▶ If work creates Lead dust, use HEPA vacuum at the point of operation to capture dust/fumes.
 - ▶ HEPA vacuum dust covered work surfaces.
 - ▶ Broom sweep task area with Kleene Sweep additive.
 - ▶ Use walk-off mats at room entrance.
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Hygiene Practices

- ▶ For employees who are exposed to lead, regardless of the exposure level:
 - Employees cannot leave the workplace wearing the PPE they wore during their work shift.
 - Employees must wash their hands and face before breaks and at the end of their shifts and are encouraged to shower immediately when they get home.
 - Employees cannot enter eating areas with protective work clothing.
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Hazard Assessment

How Lead Exposure is Measured

- ▶ PEL: You are allowed to be exposed up to the **P**ermissible **E**xposure **L**imit established by OSHA of 50 ug/m^3 (micrograms per cubic meter of air) based on an 8-hour time weighted average.
- ▶ Action Level: OSHA established an Action Level of 30 ug/m^3 based on an 8-hour time weighted average.
- ▶ Action Level: Employee exposure, without regard to the use of respirators.



Training Requirements

- ▶ Required for anyone exposed to lead products.
 - ▶ Includes:
 - Specific job hazards from lead.
 - Dangers of lead to your body.
 - OSHA permissible exposure limit (PEL)
 - Protective measures, engineering controls & work practices to be taken.
 - PPE
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Create a Plan to Work Safely

- ▶ Proper planning must include:
 - Describe the task
 - Walk the work area while you fill out the PTP
 - Identify the hazards
 - Identify area hazards while you fill out the PTP
 - Mitigate the hazards
 - Find safe solutions to protect yourself and others from known hazards
 - When the plan changes, STOP... and reassess the plan before proceeding.

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