

A Road Construction Industry Consortium Awareness Program



How Harmful Is Lead?

Lead damages the nervous system and the reproductive system. Lead may be found in paints during bridge renovations. Lead dust and fume can be inhaled or ingested during sandblasting, welding, and cutting. Lead dust can be carried home on clothes and can poison your family.

Prevent lead poisoning by:

- Removing paint before cutting or welding.
- Using long-handled torches.
- Using local exhaust ventilation.
- Wearing the proper respirator.
- Washing face and hands before eating, smoking, or drinking.
- Showering and changing clothes before leaving work.
- Getting your blood level tested periodically.

Are There Other Health Hazards?

Other health hazards include common substances like solvents and carbon monoxide or special products such as sealants and paints. To avoid health hazards:



- Review the product Material Safety Data Sheets.
- Limit exposure as much as possible.
- Stay upwind of hazardous exposures.
- Make sure hazard controls like fans are working.
- Wear protective gear like respirators and skin coverings.

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How Do Health Hazards Harm Us?

Toxic substances can enter the body by three routes:

- breathing,
- · swallowing, and
- skin contact or skin absorption.



The effects of toxic substances in the body may be:

- short-term (acute) such as eye irritation or dizziness, or
- delayed (chronic) such as cancer or chronic lung disease.

How Harmful Is Silica?

Silica is in many construction dusts such as concrete and rock. Tasks that expose workers to large amounts of silica include sand blasting, rock drilling, and concrete drilling and grinding. Long-term exposure to silica leads to lung disease (silicosis). Long-term exposure also increases the risk of cancer. You can prevent exposure to silica by:

- reducing airborne dust through ventilation and wetting and
- using NIOSH-approved toxic dust respirators.



How Harmful Is Asphalt?

Asphalt fumes may cause eye and respiratory tract irritation. Hot asphalt can severely burn the skin.

To prevent exposure to asphalt:

- Work upwind whenever possible.
- Maintain a lower temperature to minimize fumes.
- Use ventilation on paving machines.
- Wear gloves and long-sleeved shirts to prevent skin contact.

How Harmful Is Wet Concrete?

Wet concrete can cause dermatitis and skin burns. Dermatitis can be either an



irritation from chemicals in the concrete or an allergic reaction. The allergic type is very difficult to cure.

The best practices for preventing dermatitis and burns include:

- Wear long-sleeved or gauntlet gloves.
- Keep concrete out of your boots.
- Change your gloves and your boots if they become contaminated inside.
- Wash your hands in clean water with pH-neutral soap.
- Try using a pH-neutralizing or buffering product.
- Protect all cuts with bandages.
- Wear eye protection.