

Hazardous Materials

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Overview

Hazardous materials come in a variety of forms on the jobsite, and they are so common that many construction workers forget.

For Discussion

- Asbestos - Asbestos is a mineral-based material that is resistant to heat and corrosive materials. It is often found in building materials such as shingles, floor tiles, cement pipes, insulation, and fire-resistant drywall. Today, very few asbestos-containing products are being used and installed, so most worker exposures occur during the removal of asbestos or renovation of structures containing asbestos. Avoid exposure to asbestos by using a NIOSH-approved respirator and wearing protective clothing such as full-body suits, gloves and foot-wear.
- Crystalline silica - Crystalline silica is found in materials such as concrete, masonry, and rocks. When these materials are ground into fine dust, they can be suspended in the air, and breathing them can cause lung damage. Some activities that can cause you to be exposed to silica are sand blasting, abrasive blasting of concrete, demolition of concrete, dry sweeping of concrete or sand dust, etc. Be sure to protect yourself by using a respirator if there is a risk of silica on your jobsite.
- Lead - If absorbed into your body in certain doses, lead is toxic. It can be absorbed by breathing it in and/or through your mouth. As exposure continues, and if not filtered by the body and excreted, lead can cause irreversible damage to body cells, organs, and whole-body systems. Some operations that generate lead dust and fumes include sanding, scraping, or drilling a lead-painted surface in repair, reconstruction, dismantling, and demolition work.
- Hazardous Solvents - There are two basic classes of solvents - chlorinated and non-chlorinated. In general, chlorinated solvents are not flammable, but their vapors may be toxic and can become even more toxic to the liver and kidneys when heated. Carbon tetrachloride, chloroform and trichloroethylene are prime examples. Most of the non-chlorinated solvents are flammable. If you work with them, you must be aware of fire hazards. Excessive exposure may also cause damage to a person's liver and kidneys.

Solvents can enter the body by two main routes - by inhalation or by absorption into the skin through contact. Inhaled solvents are quickly absorbed into the bloodstream and then move throughout the body. If enough vapor is inhaled, any solvent will cause drowsiness, dizziness, or headaches. This will impair your judgment and coordination because it affects the central nervous system.

- Hexavalent Chromium - Hexavalent Chromium is a toxic, man-made compound common in dyes, paints, inks, and plastics. It is generally added as an anti-corrosive agent to surface coatings, and is toxic if breathed when released as a fume. Some people have allergic skin reactions when handling it in liquid or solid form. If you work near chromate-containing paints or chrome electroplating, or near welding of stainless steel/chrome-coated metal, wear proper PPE, and limit the time that you spend exposed to the hazard.

If you are working with hazardous materials on the job, check the company Material Safety Data Sheets (MSDS). Every potentially hazardous product purchased by your employer **must** have an MSDS available to you so that you can determine potential hazards and methods to protect yourself from them.

If you are unsure where the MSDS book is located or do not know how to find the information you are looking for, ask a supervisor. By law, you have a right to access this information.

Questions

1. Where are the MSDSs on our job?
2. What are the hazardous materials on our job?
3. How can I protect myself and others?