



SAFE USE OF LEAD SHIELDING

Lead is a widely used and highly effective means of shielding radiation. However, metallic lead itself can be toxic if ingested or inhaled. Lead particles are readily removed from the surface of uncoated lead and can be a source of occupational exposure. Lead particles may be transferred to hands or clothing, or accumulate as dust on floors and other laboratory surfaces. Under heavy handling, it may even become airborne. The following procedure and guidance should be utilized when handling or working with lead shielding, to minimize lead exposure and control other hazards associated with moving lead objects.

ALWAYS wear gloves when handling metallic lead. If you handle more than a few pieces, also wear a disposable lab coat or disposable coveralls, and safety glasses.

- Regularly clean work areas around lead shielding using damp wipes.
- HEPA vacuum shielding before and after handling.
- Wash hands thoroughly after handling lead and before leaving the laboratory or work area.
- Cover lead with plastic sheeting to prevent lead contamination when working with unsealed radioactive material.
- Purchase or prepare encapsulated lead whenever possible.
- NEVER use lead bricks as a doorstop!
- Avoid putting labels or stickers on lead as they can make future reuse or recycling very difficult.
- Never throw lead out in regular trash – contact EHS (208-282-2310) for disposal/recycling requirements.
- Lead is very heavy! Lift only one brick at a time, and avoid reaching or twisting while lifting. Set bricks down gently to minimize dust generation, and beware of fingers and toes. Utilize steel-toed boots or steel-toed over shoes when handling lead bricks.
- If your work area needs a large amount of lead shielding for radiation protection, make sure the floor and any furniture can handle the weight.

For additional information, contact the ISU Environmental Health and Safety Department

208-282-2310.