

Product name: Metallic Lead

<p>British Lead Mills: Peartree Lane Welwyn Garden City Hertfordshire AL7 3UB Tel 01707 324595 Fax 01707 328941 www.britishlead.co.uk</p>	<p>Usage</p> <p>The application of the solid metal presents minimal risks providing standard sensible workplace cleanliness is adopted. Working with molten lead or lead alloys requires the use of statutory eye protection and other recognised personal protection such as HSE approved protective face mask. The appropriate Health and Safety requirements are defined in the Control of Load at Work Regulations 1998. It is recommended that a simple work place risk assessment is made in accordance with the points stated on pages 1,2 & 5 of the regulations. In general, working with the metal in the open air presents minimal risk providing adequate washing facilities are available at the workplace for hand cleaning.</p>
<p>Description</p> <p>Bluish grey soft metal</p>	
<p>Hazardous contents</p> <p>Lead is a toxic metal. Low concentrations of other various elements will be present, some as alloying constituents, others as impurities. Oxidation of the surface of the lead will occur forming a surface film of lead compounds.</p>	<p>Lead in air threshold limits</p> <p>The occupational exposure limit is based on an 8 hour time weighted average and is currently 0.15mg/m³. If this limit is breached then certain additional controls will be required as described in the Lead Code of Practice Regulations 1998. In reality, for outside applications using the solid metal this would not normally present a problem. However it is sensible to wear an approved mask when stripping old lead roofs, melting lead or lead burning where there is a possibility of fumes or dust being generated. Providing this is diligently followed then lead in air measurements would not normally be necessary as adequate worker safeguards would be in place.</p>
<p>Lead Properties</p> <p>The basic physical properties of lead are:- Melting temperature 372 degC Fuming temperature 500 degC Specific weight approx. 11.34 x 10³ kg/m³</p>	
<p>Potential health Hazards</p> <p>Inadvertent inhalation of lead dust or indigestion of lead by eating or smoking using dirty hands may cause a risk to health although the exposure would have to be extreme. In such extreme cases lead may affect the kidney function, reproduction capacity, digestive and nervous systems. To guard against this possibility the Control of Lead at Work Regulations sets out the biological limits to which workers must comply in order to provide adequate health protection.</p>	
<p>Health precautions</p> <p>a) Enclosed working areas - In enclosed areas where fume or dust may be produced from lead processing or lead burning, local exhaust ventilation may be required to ensure that the occupational exposure limit at the workplace is not exceeded. Where it is not possible to provide adequate exhaust ventilation, personal respiratory equipment, approved by HSE, may be required.</p> <p>b) Enclosed AND open working areas- In all working environments smoking must not be permitted, particularly if there is a significant risk of lead contamination. As lead can be ingested from contamination of both hands and face, washing thoroughly after handling the metal is important. Similarly finger nail biting must be avoided and where possible wear protective gloves to reduce contaminating hands.</p>	

Safety Precautions

Lead is a heavy metal extreme care should be taken when lifting the material. An assessment of risks should be made before attempting to lift the metal. This is a simple procedure and should take account of the HSE Manual Handling Regulations.

For example:

1. Consider the requirements - where is the lead to be placed? Are the floors clear of obstructions? What is the weight indicated on the material ? Is this weight within a single persons capabilities? Does it require two people (for example using a steel bar through a roll of lead with a person each end)? If the lead has to be moved to an elevated or restricted access position is mechanical lifting equipment required?
2. For a single person lift follow the standard lifting procedure, stand firmly, feet about 300mm (12 inches) apart one foot slightly ahead of the other in the direction of the move, bend the knees, keep a straight back, chin well in, grip the material using the whole fingers (not just the tips), keep the object close to the body and finally lift by straightening the legs.
3. For placing the material, keep a straight back and bend the legs.
4. Avoid trapping fingers and if using work gloves make sure they are fitted correctly.
5. Protect the feet by wearing appropriate footwear.

Fire And Explosion Hazards

Airborne lead dust is a moderate to low risk explosion hazard when exposed to heat and flame. Lead dust can react violently with ammonium nitrate, sodium azide, hydrogen peroxide, sodium carbide, zirconium and chloride trifluoride.

Fire And Explosion Hazards

Dry powder, CO2, Water spray or foam.

Action In Case Of Spillage

Oxides are generated when lead is melted. These oxides are hazardous because they could give rise to causing dust which might be inhaled. If a spillage of oxides should occur it must be cleaned up and placed in a sealed container and sent to a lead processing company for treatment. Protective clothing (eye protection, gloves and respirator) must be worn when cleaning up any spillage.

First Aid Treatment

Eye Contact

If in contact with the eyes they should be flushed with running water for about 15 minutes. If irritation persists seek medical help.

Skin Contact

Wash hands and face with soap and water.

Inhalation/Ingestion

Absorption of lead following inhalation and/or ingestion is variable. Lead at low doses is not acutely toxic but medical attention should be sought.

Waste

Surplus metal may be returned to British Lead Mills. Disposal must be to a licensed waste site in accordance with the Special Waste Regulations 1996.

Recommended Storage

Store in a dry area. Ensure that the floor loading is not exceeded.



BRITISH LEAD MILLS

