Treating Lead-Painted Metal Surfaces

Safe maintenance and best practice guidance for asset owners, painting contractors and professional applicators
Our thanks go to representatives from the following organisations who contributed and assisted in the preparation of this guidance document, via the BCF’s Protective Coatings for UK Infrastructure committee:

Highways England
Network Rail
EA Technology
BAM Nuttall
Hankinson Group

and the members of our High Performance Coatings committee

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- the links & mention of third parties do not imply or confer BCF endorsement
- the BCF has issued guidance documents for professional decorators (HS034) and for the general public (HS032), to cover the decorative treatment of lead-painted surfaces on buildings, primarily for non-metallic surfaces
- any comments or suggestions regarding this document should be addressed to: trevor.fielding@bcf.co.uk
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1. Purpose and Target Audience

This document is intended for asset owners, professional coating applicators and painting contractors, to assist them in taking the appropriate precautions when assessing, preparing, treating and protecting metallic surfaces that may have been previously painted with lead-containing paints. It is primarily intended for operatives who have been tasked with repainting metal structures such as electricity transmission / distribution towers, telecommunications structures, bridges and gantries, where the structure is fixed and in an exterior environment, potentially with accessibility issues. It may also be used as a reference and best practice document for the treatment of other metal surfaces which have been painted with lead-based paints, e.g. building cladding, waste containers (skips).

2. Background

Many wooden or metal surfaces painted over 50 years ago may contain significant levels of lead. Lead pigments, either white (lead carbonate / lead sulphate) or coloured (yellow, orange and red lead chromates) were widely used in decorative paints applied in houses and public buildings (schools, hospitals etc.) prior to 1960. These pigments were also used in industrial protective coatings until more recently, being used in e.g. bridge paints, railings and for electricity/telecommunication towers due to the superior corrosion protection properties and weather resistance. One specific example is calcium plumbate primers used to protect galvanised steel on towers and railings. Lead pigments were no longer used in decorative paints by the early 1980s, whilst the remaining industrial use is limited to lead chromate pigments for a number of specific applications (e.g. waste containers, OEM metal fabrications) which are strictly controlled under EU Chemicals legislation (REACH Restriction and Authorisation programme). Although the use of lead paint is considerably reduced compared with 40 years ago, old ‘legacy’ lead-painted metal surfaces still exist, and are a lead exposure source, potentially affecting human health and the environment.

The BCF is signed up to the United Nations Environment Programme / World Health Organisation (UNEP/WHO) joint initiative Lead Paint Alliance (formerly the Global Alliance to Eliminate Lead Paint, GAELP), with the stated aim to prevent children’s exposure to paint containing lead and to minimize occupational exposure to lead paint. It is important to ensure that all persons potentially handling legacy lead-painted surfaces are fully aware of the hazards associated with lead-containing materials, and that they follow best practices. The safe maintenance and treatment of painted surfaces and waste is essential, to minimise the risks of lead poisoning to workers and the general public, and to prevent lead-containing waste from contaminating the environment. This document also includes a web links to sources of information from the UK government and other organisations - please see the annexes for further details.
3. Key Do’s and Don’ts

**DO**

- Wear the recommended Personal Protective Equipment correctly
- Ensure especially that appropriate Respiratory Protective Equipment is used
- Check (risk assess) to see if the lead content of the coated surface is of concern
- Securely contain and cordon-off the immediate surrounds when treating lead surfaces
- Keep dust to absolute minimum – use best techniques and extraction when possible
- Capture all paint debris and scrapings, and contaminated items, for safe disposal
- Follow appropriate literature & labelling information provided with the paint
- Keep protective clothing on throughout the whole process until the end of cleaning up
- Dispose of all waste correctly, safely and responsibly
- Follow personal hygiene best practice – clean and change before eating or smoking

**DO NOT**

- Eat, drink or smoke whilst working on the project
- Allow bystanders to be in the vicinity of paint removal activities
- Remove more of the lead paint from the surface than is necessary
- Allow lead paint dust or debris to contaminate the environment
- Create lead-paint fumes by using heat, blow lamps or gas torches to strip the paint, or when cutting and repairing existing lead-paint-coated steel structures
- Leave any debris or contaminated materials behind after completing the job
- Burn or incinerate any lead-containing waste
4. Determining whether a painted surface contains lead

Prior to starting work, companies are required to carry out a risk assessment and to provide appropriate instrumentation and training to employees, which must be recorded and documented. It is essential that an assessment is done to confirm whether the surface to be treated has been painted with a lead-containing paint, as this will assist with decisions on the preparation technique, containment requirements and waste disposal.

To determine whether or not lead-containing paint is present on any particular surface, the paint may be tested by:

(a) using a simple chemicals’ lead test kit;
(b) using more sophisticated equipment such as a portable XRF device;
(c) employing a specialist company;
(d) providing paint samples to a specialist laboratory;
(e) employing a painting contractor with lead expertise and equipment.

There have been a number of advances in recent years with regard to practical testing methods for lead, including non-invasive methods such as X-ray Fluorescence (XRF) and elemental analysis using a Scanning Electron Microscope (SEM) in conjunction with an energy dispersive x-ray analyser. Further details on the different analytical methods employed may be found in the following World Health Organisation (WHO) publication from 2011 – www.who.int/ipcs/assessment/public_health/lead_paint.pdf

Annexes 3 & 4 contain further details and references / links to appropriate organisations that may be able to assist with the identification and quantification of the lead content in a surface.

5. Hazards associated with lead-painted surfaces

The main hazards to control are paint chips and flakes, paint dust and paint fumes. These may enter the human body through eating (ingestion) or breathing (inhalation), so the focus must be on preventing these incidents from potentially occurring, for both operatives and bystanders.

Undamaged intact lead-painted surfaces are not a major hazard, and should not be disturbed or removed unless it is deemed necessary, or can be fully
controlled and done safely. Compatible paint systems may be applied directly on top of such surfaces, thus encapsulating the lead hazard, in accordance with the paint manufacturers’ guidance and instructions.

Removing lead based paints will undoubtedly cost more in the future, and potentially result in legacy issues and increased management costs. Infrastructure asset managers, including those responsible for UK government assets, should carefully consider the options, based on cost effectiveness and after the appropriate risk assessment has been carried out, taking into account the proportion of intact based paint vs damaged paint, the adhesion of existing paint, and the location and ease of access to the structure. Where removal can be done in a very controlled and safe way contractors should consider removing the lead paint altogether, and this action should be recorded (for ships, bridges etc) for reference when further maintenance is required. Removing and disposing all lead paint (under such controlled situations) reduces the risk of lead intoxication and lead pollution at the “end of life” stage of the object.

Lead is a cumulative toxicant, which means that it can build up over a number of years within different organs and systems of the body. The WHO estimates that nearly 150,000 deaths per year are caused by lead poisoning. Lead especially affects the functioning of the heart, brain, kidneys, blood, digestive and nervous systems. Its effect on children and their brain development has been well-documented - this is very serious and irreversible, and therefore a key concern.

The exposure of children to lead in any form should be prevented as much as possible. Very young children are particularly vulnerable to the potential adverse health effects of elevated levels of lead in the blood. Children absorb lead mostly by eating it, or by touching items contaminated by dust or soil and then putting their fingers into their mouths. An unborn child is also at particular risk from lead exposure, especially in the early weeks before a pregnancy becomes known. Women capable of having children should take special care to follow good working practices and a high level of personal hygiene.

Operatives who are required to work on lead-painted structures will usually undergo blood monitoring and urine testing on a regular basis, to ensure that the levels of lead are not accumulating in their bodies. Blood levels have been set (HSE document indg305, see Annex 1) at which action needs to be taken. Air monitoring at locations where the maintenance of lead-painted surfaces is underway is also common. Operatives will normally undergo lung-function testing if they regularly work with structures with lead-painted surfaces present. Operatives must take particular care to avoid any possibility of themselves or bystanders (especially children) inhaling or eating anything contaminated by lead dust. Operatives should therefore not eat, drink or smoke whilst treating lead-painted surfaces.
In conclusion, every effort should be made to minimise the production of lead paint chips, dust, flakes or fumes, and the ingestion or inhalation of this material. If a technique to be used involves the creation of one or more of these materials then the operative or contractor needs to make sure that exposure to these hazards is completely under their control and minimised as far as possible.

6. Personal Protective Equipment (PPE)

Avoiding exposure to lead-contaminated materials is the prime objective. However, where exposure cannot be avoided, Personal Protective Equipment (PPE) should be used. It is worth reiterating that within the hierarchy of health and safety controls, PPE should always be considered as the last option.

To protect their health, and to comply with occupational health legislation, operatives preparing lead-painted surfaces and then subsequently painting these surfaces must wear the correct PPE, especially Respiratory Protective Equipment (RPE), and be trained up in the correct use of such equipment, with face-fitted masks as appropriate. Clean air monitoring is recommended, and is now a legal requirement wherever there is a risk of significant exposure to lead. (see the Control of Lead at Work CLAW regulations, Regulation 9, p56, link in Annex 1 below) for further details. The monitoring of lead content in urine and blood is also a standard procedure in such situations.

The correct PPE to use will primarily be determined by the technique for surface preparation that is employed, with the additional following specific issues, relating to lead hazards, to be taken into consideration:

- Compressed air breathing apparatus should be used by workers whenever there is a possibility of lead dust inhalation through exposure to mechanical surface preparation techniques (blasting)
- Cartridge-type respirators with particulate filters should be used by other operatives who are working within the close vicinity of such blasting / surface preparation activities
- Operatives preparing surfaces manually (scrapping and wire-brushing) should use cartridge respirators with particulate filters and safety goggles if air-fed equipment is impractical e.g. when working at height on electricity transmission / distribution towers
- Operatives should ensure that their overalls are in good condition, and are worn correctly (with zips fastened and sleeves rolled down thus providing full coverage), so that there is no risk of clothing or skin becoming contaminated with either lead dust or lead paint chips or flakes. Disposable overalls may be preferred to minimise post-job contamination.
- Appropriate gloves should be worn throughout the procedure, which overlap the overall sleeves, preventing any skin contact with debris, or with paint
- Appropriate boots should be worn, according to the task in hand
- Note that particulate filters in respiratory equipment are used specifically to prevent dust inhalation during the surface preparation stage
- When any solvent-based paints are being applied organic / carbon filters should be used in respiratory protective equipment (see below for specific details on RPE)
- All re-usable PPE should be carefully cleaned as and when required during breaks in the work, or minimum at the end of each day, and any traces of lead paint or dust carefully removed prior to storage and subsequent re-use
- Operatives should change their clothes before leaving the site to avoid contaminating the environment outside the designated ‘dirty’ work area

**Specific Notes on Respiratory Protective Equipment**

Compressed air breathing apparatus should be worn correctly by operatives when using mechanical means to remove old paint films. They may use professionally fitted and assessed face-fitted respiratory masks when blasting painted surfaces. Alternatively, blast helmets (air-fed hoods) may be used. Regular lung-function testing needs to be carried out whatever method is employed by the operator. Specific HSE guidance is available on the correct selection and use of the most appropriate RPE (see HSE document HSG 53, [http://www.hse.gov.uk/pUbns/priced/hsg53.pdf](http://www.hse.gov.uk/pUbns/priced/hsg53.pdf)). Note especially the guidance with regard to face-fitting and wear time – non-air-fed masks should only be worn for a maximum of 1 hour at a time, otherwise there is a tendency to adjust the RPE whilst still working on the job, allowing the face to be exposed to lead dust. See annex 5 for further information on RPE.

**7. Preparing the surface and dust containment**

A full risk assessment of the location and environment, including accessibility issues and possible debris containment challenges, must be made before starting any work. This will influence decisions on the techniques and equipment to be used, and identify any specific concerns. For example, the preparation of surfaces near to or over water (rivers, streams or reservoirs), public buildings, housing estates or near to public spaces where children are likely to be (schools and playgrounds) need special consideration regarding how to contain the lead-containing dust and debris that will be created. Note that lead dust may also be created if demolition or cutting or drilling of lead-painted metal structures is required.
The surface to be prepared also requires expert inspection and assessment, to decide whether the task involves extensive removal of legacy lead paint, or if only spot removal and maintenance repair will be sufficient. Dust and debris containment should be in accordance with COSHH Regulation 7(7) Schedule 2A ‘Principles of good practice for the control of exposure to substances hazardous to health’ (see Annex 5 for further details).

Most normal methods of metal surface preparation (mechanical, chemical stripping and manual removal) may be used for lead-painted surfaces, however the following specific points should be carefully considered to assist in selecting the best method to use:

- extent to which the paint film needs to be removed (spot, partial or full removal)
- time available for the job, and funds available
- accessibility to the structure / surface
- any restrictions to using containment best practices (e.g. difficulty in positioning sheets and tarpaulins)
- shrink-wrap type encapsulation may be a suitable containment method to use
- methods for dust extraction and removal at source, from within the working environment (employing vacuum methods linked to blasting procedures)
- amount of hazardous waste that will be generated from the process, and how this is intended to be disposed of
- how to capture the surface waste and prevent it from contaminating the soil or ground
- how to contain and capture all the hazardous waste water, if water blasting is the chosen option
- how to minimise dust if dry blasting is to be used – note that the use of Vapor Blasting (small amount of water, moistening the abrasive media and dust) is now becoming common practice, using the appropriate equipment
- how to capture dust and debris when working at height, and prevent this from blowing out of the containment area
- how to prevent contaminating water courses
- special care must be taken when working in wet or windy conditions

Lead paint must not be extensively heated or burnt, as lead fumes are very easily absorbed into the body, so those techniques which are based on significant heat or fire must be avoided. IR stripping and hot-air guns may be used but with considerable caution, to ensure that the surface does not get hot enough to create any fumes. Note also the risk of creating lead-containing fumes when cutting steel structures that have lead paint on – this should be carefully controlled and exposure to the fumes minimised.
Thoroughly wash all surfaces, both those from which lead-containing paints have been removed and others in the work area that may have been contaminated by dust during the preparation process, and allow to fully dry before applying new paint. It is also important to maintain and distinguish between ‘clean’ and ‘dirty’ areas in the work area.

8. Cleaning up and waste disposal prior to painting

All materials that have been contaminated with lead (solid and liquid) must be treated as hazardous waste and disposed of accordingly. Lead-containing waste must not be burnt or incinerated as this will create a vapour hazard.

Vacuum all surfaces with a vacuum cleaner fitted with a high efficiency particle air filter (HEPA). Many vacuum cleaners are fitted with HEPA filters and are marked as such. These filters ensure that all the dust is captured in the cleaner receptacle rather than released back into the atmosphere.

Dispose of all debris, including cleaning cloths, masks and filters in plastic bags and seal with tape. Clean up all debris frequently, as well as at the end of each day. Remove all debris from the work area before applying the fresh paint.

Treat as hazardous waste and utilise an approved specialist hazardous waste disposal service. Further information on the correct procedure to follow may be found at www.gov.uk/dispose-hazardous-waste/overview.

For further information, on both the legislation and ‘Duty of Care Code of Practice’ for your region, please follow this link www.rightwasterightplace.com/#intro

In the case of an accident or emergency related to the treatment of lead-painted surfaces, follow the specific guidance provided in the Control of Lead at Work regulations (Regulation 12, pp82 - 87, link in Annex 1 below).

9. Selecting and applying the fresh paint

The individual paint manufacturers should be consulted as to the most suitable paint to use to cover existing lead-painted surfaces. There are a number of different coating technologies that may be used, and a broad range of products available. Further information on paint manufacturers may be accessed through the BCF website, www.coatings.org.uk, under the ‘Product Finder’ search facility.
Asset owners should also be consulted to determine if the asset owner has appropriate specifications and procedures before repainting. Refer to Annex 2 for further information.

The selection of the best product for the job will depend on, amongst other parameters:

- detailed information of the climatic conditions at the location
- details on the surface to be protected, including type of coating that was previously on the surface (if known)
- nature of the lead-containing surface, and degree of cleanliness
- paint application process (spray, brush or roller)
- the intended durability of the finished system
- the number of coats to be applied
- the total target filmweight of the finished job

There are also practical issues to consider – for example, 2-component paint systems may provide the best overall performance, but may not be the most appropriate for painting electricity transmission / distribution towers, if the pot-life is relatively short.

Standard paint application procedures and recommended PPE, especially Respiratory Protective Equipment (to prevent inhalation of solvents), for painting should be used, ensuring that the prepared lead-painted surface remains as undisturbed as possible, and that no dust or additional lead-contaminated materials are inadvertently created during the painting process. Refer back to the paint supplier for further details and support.

Additional requirements need to be considered for projects for the UK government, such as rail and road infrastructure improvements, as the use of protective coating products, application and maintenance are highly regulated on such projects. Railway safety requirements regarding site supervision and inspection should be followed.
Annex 1 UK Government advice on Lead in paint

Legislation – Health & Safety Executive

The Control of Lead at Work (CLAW) Regulations 2002 (SI 2002/2676) should be consulted first – the HSE’s Approved Code of Practice and Guidance book may be accessed through the following link to their website (118-page document L132) - www.hse.gov.uk/pubns/priced/l132.pdf.

Paint stripping and blast removal / abrasion of lead painted surfaces are listed under activities that may result in significant exposure. Full details are provided with regard to recommended practices to ensure minimum exposure and the safe treatment of lead-containing surfaces.

The Construction (Design and Management) Regulations 2015 (CDM 2015) specifically mentions lead paint as a hazardous material, and this needs to be included when preparing a health and safety file for any construction project (HSE publication L153) - www.hse.gov.uk/pubns/priced/l153.pdf.

There is also a page on the website specifically dedicated to lead as a hazardous substance in construction environments - www.hse.gov.uk/construction/healthrisks/hazardous-substances/lead.htm.

Other guidance

A simple introductory overview of the issues related to lead paint may be found in the HSE leaflet CIS 79, ‘Old lead paint – what you need to know as a busy builder’, which may be found through the following link - www.hse.gov.uk/pubns/cis79.pdf.

The best leaflet for professional painters to refer to with regard to working safely with lead, the risks involved to human health, and employer responsibilities, is the HSE leaflet ‘Lead and You’ INDG305, which can be found at www.hse.gov.uk/pubns/indg305.pdf.

The primary general reference document for the public on working with surfaces previously painted with lead-based paints is the Defra publication, ‘Advice on lead paint in older homes’ – www.gov.uk/government/publications/advice-on-lead-paint-in-older-homes

This is a 2-page Defra leaflet that provides a straightforward introduction to the subject, and recommended methods to treat lead painted surfaces safely, if action is required. It also contains the following contact number and links:
Defra helpline - 03459 33 55 77, helpline@defra.gsi.gov.uk

In addition, there is a Public Health England page specifically focussed on the health effects of lead, at www.gov.uk/government/publications/lead-properties-incident-management-and-toxicology
This contains 3 documents (last update May 2016) – a brief general information document on lead (with a good FAQ section), an incident management document and a toxicology overview.

**Annex 2 Industry Advice and best practice on lead in paint**

Please note - links & mention of third parties do not imply or confer endorsement by the BCF.

The following organisations provide specific advice with regard to how to safely work with lead painted surfaces that require maintenance:

Association for Project Safety – [www.aps.org.uk](http://www.aps.org.uk)

The Construction Industry Training Board (CITB) 2016 – [www.citb.co.uk](http://www.citb.co.uk)

GB02 – Lead hazards checklist
GB03 – Lead-containing paint risk assessment
GB04 – Lead health surveillance record

The Breathe-Freely.org.uk website (part of BOHS, the Chartered Society for Worker Health protection) provides a very good presentation on the subject at [www.breathefreely.org.uk/assets/bf-cmt-lead-show.ppsx](http://www.breathefreely.org.uk/assets/bf-cmt-lead-show.ppsx)

(The relevant documents are - NR/L3/CIV/039; NR/L3/CIV/040; NR/GN/CIV/002)

Further guidance may also be obtained from the Network Rail Protective Coatings Specialist Group, available from Head of Structures, at STEEngineering@networkrail.co.uk or [www.networkrail.co.uk/contact](http://www.networkrail.co.uk/contact).

The BCF have published two guidance documents for householders and professional decorators working with lead-painted surfaces – HS032 and HS034. Copies of these are available free-of-charge from [www.coatings.org.uk](http://www.coatings.org.uk)
Annex 3 Specialist companies providing advice & support

The following specialist companies can conduct checks for lead paint and lead dust and provide support:

Lead in Paint Safety Association (LIPSA),
Telephone 0844 544 6187, e-mail info@lipsa.org.uk website www.lipsa.org.uk

Lead Test Home Analysis Service,
Telephone 0131 669 8770, (0790 194 1954), e-mail contact@leadtest.co.uk, website www.leadcheck.co.uk

Envirohive,
Telephone 01276 501439, e-mail info@envirohive.co.uk, website www.envirohive.co.uk/leadpaint.html

Sysco Environmental
Telephone 0800 4337914, website https://sysco-env.co.uk/about/

Lead Survey
Telephone 020 7118 0988 or email: info@leadsurvey.co.uk, website https://leadsurvey.co.uk/

Annex 4 Testing for lead content in paint

There are both DIY kits and more sophisticated equipment and testing services available to identify if a painted surface contains lead. The generally approach taken by the US authorities is to identify any surface with > 0.5% lead content as hazardous and needing a specific lead management approach. One of the most common approaches now used to identify and measure lead content on surfaces is X-ray Fluorescence (XRF) analysis. Hand-held XRF devices are now widely available for professional use, and this is the predominant approach used by specialist companies for remote lead testing. Another method is elemental analysis using a Scanning Electron Microscope (SEM) in conjunction with an energy dispersive x-ray analyser.

How to source manual lead test kits

These kits are available from a number of manufacturers such as 3M, Nitromors, Abotex and Pro-Lab. If the instructions for use are followed carefully, and the test paper shows a positive response then lead is present. However, as the test is not necessarily 100% accurate a negative reading should not be
relied upon to show the absence of lead and if you think there could be lead present then a professional test should be carried out.

Main DIY outlets in the UK no longer stock these kits as a regular item, however they are available through specialist decorator centres (e.g. the Brewers network) and on-line through e.g. e-bay: www.ebay.co.uk/sch/i.html?_nkw=lead+paint+test

The following organisations may also assist with supplying test kits:

Lead in Paint Safety Association, telephone 0844 5446187, e-mail info@lipsa.org.uk, website www.lipsa.org.uk

Heritage Testing Limited, telephone 01273 891785, email enquiries@heritagetesting.co.uk, website www.heritagetesting.co.uk

Lead Test Home Analysis Service, email contact@leadtest.co.uk, website www.leadtest.co.uk

Lead Check can provide 3M Lead Check Swabs order from www.leadcheck.com

*Specialist laboratories that can test paint samples*

The best way to identify a suitable and convenient specialist laboratory is to contact the United Kingdom Accreditation Service (UKAS), telephone 0208 917 8555 website www.ukas.org. The appropriate list of laboratories may be found under the ‘Accredited Organisations’ tab, testing labs for metal content in paints & varnishes.

The following labs can provide an assessment of paint samples:

BLC (British Leather Technology Centre), Telephone 01604 679999, info@blcleathertech.com, website www.blcleathertech.com/testing-services/paint-lead-testing.htm

Eurofins Laboratories, Telephone 0161 868 76 00, ProductTesting-MA@eurofins.com, website www.eurofins.com/product-testing-services/industries/chemical.aspx

Sandberg Laboratories, Telephone 020 7565 7070, gavin.mayers@sandberg.co.uk, website www.sandberg.co.uk/laboratories/chemistry/lead-in-paint.html
Annex 5 Recommendations on controlling dust hazards

The leaflet ‘Dust in the Workplace’ provides the general principles for protecting workers from dust exposure [www.hse.gov.uk/pubns/eh44.pdf](http://www.hse.gov.uk/pubns/eh44.pdf).

There are increasing concerns with regard to the creation of lead paint dust during the demolition of buildings, or through using dry sanding rather than wet sanding techniques. Although not specifically mentioning dust from lead containing paint, the best practice guidance provided in the leaflet CIS 36 ‘Construction dust’ - [www.hse.gov.uk/pubns/cis36.pdf](http://www.hse.gov.uk/pubns/cis36.pdf), may also be a useful.

The HSE also has a webpage called its ‘dust hub’ [www.hse.gov.uk/dust/index.htm](http://www.hse.gov.uk/dust/index.htm).


The Steel construction industry also provide specialist guidance on surface preparation and dust control on their dedicated website [www.steelconstruction.info/Surface_preparation](http://www.steelconstruction.info/Surface_preparation).

The CITB leads the Construction Dust Partnership, whose aim is ‘To raise awareness within the construction industry about lung diseases related to hazardous workplace dust and to promote good practice to prevent these diseases, particularly for those undertaking high risk tasks’ – [www.citb.co.uk/health-safety-and-other-topics/health-safety/construction-dust-partnership/](http://www.citb.co.uk/health-safety-and-other-topics/health-safety/construction-dust-partnership/).

A COSHH assessment to identify hazards and assess risk should be made before starting any job. Note that COSHH does not specifically apply to lead as the Control of Lead at Work (CLAW) regulations from 2002 mentioned in Annex 1 were devised to specifically cover lead.

However, the COSHH ‘Principles of Good Practice’ should be followed, [www.hse.gov.uk/coshh/detail/goodpractice.htm](http://www.hse.gov.uk/coshh/detail/goodpractice.htm).
COSHH Regulation 7(7) Schedule 2A ‘Principles of good practice for the control of exposure to substances hazardous to health’ – provides more detail and is summarised below:

✓ Design and operate processes and activities to minimise emission, release and spread of substances hazardous to health.
✓ Take into account all relevant routes of exposure - inhalation, skin absorption and ingestion - when developing control measures.
✓ Control exposure by measures that are proportionate to the health risk.
✓ Choose the most effective and reliable control options which minimise the escape and spread of substances hazardous to health.
✓ Where adequate control of exposure cannot be achieved by other means, provide, in combination with other control measures, suitable personal protective equipment.
✓ Check and review regularly all elements of control measures for their continuing effectiveness.
✓ Inform and train all employees on the hazards and risks from the substances with which they work and the use of control measures developed to minimise the risks.
✓ Ensure that the introduction of control measures does not increase the overall risk to health and safety.

The following document provides an overall introduction to COSHH and how to control exposure of workers to hazardous substances

www.hse.gov.uk/pubns/indg136.pdf

The UK government website link www.hse.gov.uk/coshh/basics/control.htm may also provide useful information.