

Lead in painted surfaces

Repainting and removal

Guide for the general public

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1. Purpose of this document

Lead pigments were taken out of most paints in the 1960s and lead pigments and driers (at very low levels) were completely removed from decorative paints by the early 1980s. Many wood or metal surfaces painted before the 1960s could contain significant levels of lead.

Lead pigments, either as a white pigment (lead carbonate/lead sulphate) or sometimes as a colouring pigment (yellow and red lead chromes) were widely used in decorative paints applied in houses and other buildings (schools, hospitals etc.) prior to the 1960's. Although leaded paint has not been used for many decades old lead painted surfaces can still be found, and can represent a possible source of exposure.

The BCF and our UK decorative paint members want to ensure that the general public, and professional painters and decorators, are fully aware of the potential risks to people in homes, commercial properties and public buildings associated with the renovation of painted surfaces that contain lead. We recommend the adoption of these best practices, protecting decorators and others from the exposure to any disturbed old lead painted surfaces during removal and repainting activities. We have also included a comprehensive set of web links to other organisations, which provide additional support on this subject *(please note that links and mention of third parties do not imply or confer endorsement by the BCF)*.

This document is intended for the general public; there is an additional document HS034 available for professional decorators, with more comprehensive information, from the BCF website.

2. Do's and Don'ts



DO

Test the painted surface if you suspect that lead may be present, especially if you are renovating an old house (> 40 years old)

Consider employing a professional decorator if old lead paint is present

Keep any dust creation during surface preparation to an absolute minimum

Use chemical stripper or wet abrasive paper to remove the paint, if removal is necessary

Wear the recommended personal protective equipment (PPE)

Thoroughly clean up the whole area after paint removal has been completed



DO NOT

Remove paint if it is in a sound condition, especially if the lead paint is not the top layer – overcoating is the safest option to prevent exposure

Allow bystanders, not involved with the renovation work, to remain in the area / room

Use dry abrasive paper or techniques to remove lead paint

Create any dry paint dust during the whole process, keep all debris wet

Use blow lamps or gas torches to strip the paint

Create lead fumes by over-heating lead-containing paints

Burn or incinerate lead-containing waste

The UK government's official advice on this topic may be found through the following link -

www.gov.uk/government/publications/advice-on-lead-paint-in-older-homes

3. Recommended approach - summary (see section 5 for more details)

Step 1 – Do you suspect that lead may be in the painted surface you are renovating?

- ❖ No.....> decorate as normal practice
- ❖ Yes.....> test the surface (see section 4 below)

Step 2 – Has the presence of lead been confirmed?

- ❖ No.....> consider further (professional) testing, before proceeding as normal practice
- ❖ Yes.....> consider employing professional decorators

If you decide to proceed with decorating a lead-painted surface yourself.....

Step 3 – Is the surface in good condition, or overcoated with a non-lead paint layer?

- ❖ Yes.....> don't disturb the surface, paint over as normal practice
- ❖ No.....> prepare the area for activity.
 1. Remove all furniture, curtains and soft furnishings.
 2. Cover all exposed surfaces (including floors) with plastic sheeting, seal with tape
 3. Use Personal Protective Equipment (overalls, rubber or latex gloves, particulate filter mask)

Step 4 – Treatment of old lead paint surface

1. If the surface can be prepared without needing complete removal, rub down wet with waterproof abrasive paper & make sure the debris does not produce a dust.
2. If the whole paint film needs to be removed, use a standard paint stripper and wet scraping and abrasion. Infra-red stripping or a hot-air gun may be used to soften the film, with caution – do not burn the paint or create paint fumes.

Step 5 – Clean-up, removal and disposal of debris

1. Wash all surfaces (the specific work area and all surrounds) thoroughly
2. Vacuum all surfaces with a vacuum that has a HEPA filter
3. Carefully dispose of all debris, including face masks and all filters, in a heavy duty plastic bag, ensure that this does not get damaged in transit to the dustbin.

4. How do I know if a painted surface contains lead?

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

- (a) an experienced professional decorator with lead expertise;
- (b) using a lead test kit, that gives a simple indication of the presence of lead;
- (c) a specialist company;
- (d) a specialist laboratory.

Contact details

- (a) Professional decorators

The following organisations should be able to assist with identifying a professional decorator with expertise in handling painted lead surfaces:-

Painting and Decorating Association, 32 Cotton Road, Nuneaton CV11 5TW
telephone 0247 635 3776, e-mail info@paintingdecoratingassociation.co.uk
website www.paintingdecoratingassociation.co.uk

Scottish Decorators Federation, Castlecraig Business Park, Stirling FK7 7SH
telephone 01786 448838, e-mail info@scottishdecorators.co.uk
website www.scottishdecorators.co.uk

The Guild of Master Craftsmen, 166 High Street, Lewes BN7 1XU,
telephone 01273 478449, website www.guildmc.com

- (b) Using a lead test kit

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 (see sections (c) & (d) below).

Although the main DIY outlets in the UK no longer stock these kits as a regular item, they are available on-line through e.g. e-bay: -

http://www.ebay.co.uk/sch/i.html?_nkw=lead+paint+test

There are also more general lead kits available through healthcare outlets, such as Novadetox and their Osumex kit:- www.novadetox.co.uk/acatalog/lead-poisoning-test.html

The following organisations may also assist with supplying test kits:-

Lead 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 online from www.leadcheck.com (USA)

(c) Specialist companies

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

Lead 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

(d) Specialist laboratories

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.

Insert the word 'lead' into the search facility under the 'testing labs' tab. There is also an additional postcode search facility on top of this, which will list the most local labs first.

The following labs can provide a rapid assessment of paint samples:-

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

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

LPD Lab Services, telephone 01254 676074, website [http://www.lpdlabservices.co.uk/consultancy/health_and_safety_consultancy/lead_\(pb\)_in_paint_analysis.php](http://www.lpdlabservices.co.uk/consultancy/health_and_safety_consultancy/lead_(pb)_in_paint_analysis.php)

Sandberg Laboratories, telephone 020 7565 7070, email mayers@sandberg.co.uk, website www.sandberg.co.uk/laboratories/chemistry/lead-in-paint.html

5. Removal and renovation of old surfaces that contain lead – detailed best practice

Whilst lead is hazardous to health it is important to realise that there is only a risk if the paint film is unsound or disturbed.

If the lead-containing painted surface is in good condition and/or is already protected (over-coated) with a non-lead containing paint and is maintained in a good condition then removal could result in a greater exposure to lead dusts and particles than would otherwise occur from leaving the paint undisturbed.

Old lead painted surfaces should only be treated or removed if the paint (film) is flaking or chipping away or if dusts and particles are present or if there is the possibility of the painted surface being chewed or sucked by children.

The precautions outlined below are recommended for both professional decorators and DIY decorators. DIY decorators who are in any way uncertain about their ability to follow these precautions should consult a professional decorator.

i) Introduction

It is important that the following precautions are taken when renovating/removing old lead paint.

- a) Avoid creation of lead-containing dusts or fumes.
- b) Prohibit anyone not involved in the work from the area, and preferably the building until the area has been thoroughly and effectively cleaned.
- c) Ensure no children or pregnant women are present in any area where renovation work which involves the disturbance of lead-containing surfaces is taking place.
- d) Do not smoke, eat or drink in the work area.

ii) Preparation

It is advised that the following steps are taken prior to starting work.

- a) Remove furniture, curtains and soft furnishing as far as possible. If this cannot be done, cover these and other permanent items (including flooring) with plastic sheeting sealed with heavy duty tape. Beware of slipping on these surfaces.
- b) Keep people out of area.
- c) Wear overalls, particulate filter face mask, and rubber or latex gloves within the work area, and remove them before leaving the area.
- d) For outside working contamination of the soil should be avoided. Cover all grass, garden beds etc. within the near vicinity with plastic sheeting. Avoid working in windy conditions.

iii) Removal

To remove the old lead-containing paint, carry out one or more of the following:-

- a) To prepare surfaces in good condition (no flaking, loss of adhesion from the underlying surface) for repainting the surface should be rubbed down wet with waterproof abrasive paper to provide a key for new coat(s) of paint. The debris from rubbing down should not be allowed to dry out and form dust. It should be removed with a damp cloth and the cloth, abrasive paper and any other debris placed in a plastic bag, sealed and disposed of. Avoid any dust creation.
- b) In the case of walls and ceilings these can be best treated with wallcoverings or lining paper after a) above.
- c) To completely remove paint in a poor condition;

Either: Use a chemical paint stripper, ensuring that all instructions on the container are carefully followed. A suitable face mask to protect from fumes might be required. Such masks will NOT protect against dusts and should not be used for such purposes.

[For stripping doors a specialist stripping company, which can remove the paint safely and completely in stripping baths, can be used.]

Or: Use a paint scraper and wet abrasive paper, both these operations should be carried out after wetting the surface and the surface should be kept wet throughout to avoid dust and flakes becoming air-borne. The debris from scraping and rubbing down should not be allowed to dry out and form dust. It should be removed with a damp cloth and the cloth, abrasive paper and other debris placed in a plastic bag, sealed and disposed of.

Or: Use Infra-Red (IR) stripping equipment to soften the paint film sufficiently to be able to scrape it off. The softened paint should be scraped immediately into a suitable container before it re-hardens. A suitable face mask to protect exposure to lead-containing dusts may be required. Any subsequent surface preparation should be done wet with waterproof abrasive paper.

Or: Use a hot air gun to soften the paint film sufficiently to be able to scrape it off. The softened paint should be scraped immediately into a suitable container before it re-hardens. A suitable face mask to protect exposure to lead containing dusts may be required. Take care that the paint does not burn. Any subsequent surface preparation should be done wet with waterproof abrasive paper.

iv) Clean up

Thoroughly wash all surfaces, both those from which lead containing paints have been removed and others in the work area. Allow to dry before applying new paint, or wallcoverings to walls and ceilings. 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.

Dispose of all debris, including masks and filters in plastic bags and seal with tape – householders should place these bags in the normal dustbin.

Clean up all debris frequently, as well as at the end of each day. Remove all debris from the work area before redecorating.

DO NOT burn or incinerate lead-containing wastes.

6. Hazards associated with lead

The following leaflet from the HSE sets out the main hazards with regard to lead - www.hse.gov.uk/pubns/indg305.pdf

Lead is very hazardous to health.

It can be breathed in as dust, fume or vapour.

It can be swallowed in the form of paint chips, dust or dirt containing lead or in drinking water or in food, especially if you have not washed your hands. It can also be ingested by children sucking e.g. old cots painted with white lead paint.

If the amount of lead in your body gets too high it can cause:

- Headaches
- Tiredness
- Irritability
- Constipation
- Nausea
- Stomach pains
- Anaemia
- Loss of weight

Continued uncontrolled exposure can cause high blood lead levels that can have very serious health consequences, such as:

- Kidney damage
- Nerve and brain damage
- Infertility

Note: These symptoms can also have causes other than lead exposure so they do not necessarily mean that lead poisoning has occurred.

Very young children would be particularly vulnerable to these potential adverse health effects of elevated levels of lead in the blood. Children absorb lead mostly by eating it or touching contaminated dust or soil and then putting their fingers into their mouths.

An unborn child is at particular risk from lead exposure, especially in the early weeks before a pregnancy becomes known.

If you are a woman capable of having children you should take special care to follow good working practices and a high level of personal hygiene. Similarly unnecessary exposure of children to lead should be eliminated as a precautionary measure.

If you think that your health, or the health of any member of your family may have been affected by lead you should contact your local doctor immediately or call the relevant NHS non-emergency helplines on:

England – NHS non-emergency service = **111**

Wales – NHS Direct Wales = **0845 4647**

Scotland – NHS 24 = **111**