



Q&A Managing lead-painted timber doors etc

Question

Sent: Sunday, February 23, 2020 7:44 PM

To: The LEAD Group Inc

Subject: Lead on timber doors

From: Vanessa

Subject: Lead on timber doors

Address: ACT 2602, Australia

Hi, I have an older house and some of the doors have obviously had lead paint at some point which has been removed and painted over with a non-lead based paint. The 3M LeadCheck test kit shows no pink colour on the new paint, but pink on the timber underneath the paint (where it is peeling). As there is clearly only one layer of paint which is not lead, how come it is turning pink on the timber underneath? Is it possibly still contaminated?



Also, do you know if acid dipping a door painted with lead paint will safely remove the lead?

Thank you

Vanessa

This e-mail was sent from a contact form on LeadSafeWorld by The LEAD Group Inc.
(<http://www.lead safeworld.com>)

Answer

From: The LEAD Group

Sent: Monday, February 24, 2020 1:07 PM

To: Vanessa

Subject: Re: Lead on timber doors

Hi Vanessa,

Thanks for your email enquiry.

Coincidentally, your questions have been answered in an article that will be published in an upcoming issue of The LEAD Group's e-newsletter, *LEAD Action News*, in which the author of the article has written:

The author's experience includes the following re: Door Dipping



It has been discovered that door dipping in caustic baths leaves lead exposed. This has been shown by use of a LeadCheck swab when doors were returned from the strippers and also noted by the EPA. It is also possible that the lead comes from doors other than your own because one batch of caustic is used for many doors. It was also found that waxing does not provide sufficient protection - a surface level of 428 $\mu\text{g}/\text{ft}^2$ lead [428 micrograms of lead per square foot of surface, equivalent to 4607 $\mu\text{g}/\text{m}^2$ – over **40 times** the US Housing and Urban Development (HUD) 2017 limit for floors of 10 $\mu\text{g}/\text{ft}^2$ or 108 $\mu\text{g}/\text{m}^2$] was found using a 'Ghost Wipe' and laboratory analysis after two coats of wax. It was also found that water-based varnish was not as effective as polyurethane varnish - where brushes need to be cleaned with white spirit.

Even after three coats of water-based varnish LeadCheck still showed positive for lead. After two coats of polyurethane varnish the LeadCheck reagent did not turn pink.

[end of extract of upcoming *LEAD Action News* article]

To my knowledge, any chemical stripping method can take lead from the paint into the wood grain and for this reason, some US lead poisoning prevention advocates (like Dennis Livingstone) recommend building a whole "plastic room" in the yard and using HEPA vac extraction dry-sanding to completely strip lead paint (and the topmost fine layer of wood which may have lead in it just from the paint having been on it for decades) from removable wood-work such as windows, skirtings, frames and doors.

In case buying or building a completely contained "plastic room" and then having to put on a "space suit" to work in it sounds too hard to you (as it does to me!), I asked Mirka Ltd, Finland in August 2019 by email if Mirka's "dust-free" sanding and polishing tools portfolio (which consists of electric and pneumatic sanders, polishing machines, dust extractors, equipment, and tools for sanding walls and ceilings) has been tested and found to be lead-safe. I received no reply so in January 2020, in the most recent issue of *LEAD Action News*, I asked our readership for feedback, (at <https://lead.org.au/lanv20n2/LANv20n2-34.pdf>) on the Mirka DEROS "Dust-free sanding perfection" orbital paint dry-sander, but to date I've received no feedback so perhaps you'll be the person to provide feedback???

The Mirka DEROS is distributed in Australia by Tenaru ("Find a store" at <https://tenaru.net.au/sikkens/contact/> produces 7 results close to postcode 2602 such as Paint Place, Bunnings, Inspiration - but notes that you'd need to phone ahead to be sure the store stocks the Mirka DEROS orbital sander and also a HEPA filter which can be fitted to it).

I came across the Mirka DEROS by way of an advertisement in the Aussie Painting Contractor e-magazine at <https://aussiepaintersnetwork.com.au/aussie-painting-contractor/>; which LINKS to a VIDEO demonstrating use of the orbital sander AT <https://www.youtube.com/watch?v=1c7kvmmQRg>

Just today, inspired by your email, I have contacted Mirka Australia to ask them if they would use a LEAD Group Kit to collect a sample of the paint to be sanded, soil samples and dust wipe samples from horizontal surfaces nearby the residential lead paint job, then use the Mirka DEROS sander to sand off the paint and collect more soil and dust wipe samples from the same locations. They were interested so I will email them the proposal after sending this.

LEAD Group Kits involve posting the samples to a NATA-accredited lab in Sydney and then receiving



the quantified lead results with Comments and Interpretation so that you can know whether the home is safe for children and pets after the paint has been managed, or it needs further soil lead abatement or wet-cleaning of hard surfaces, removal of ceiling dust etc.

By collecting samples of soil and dust prior to the paint job, you guarantee that the paint contractor or DIY-renovator has not caused existing lead contamination. By testing paint at the lab prior to the work starting, you can be sure anyone being paid to work on the paint can notify the correct OHS government department if the paint contains more than 1% lead. This lead risk work notification is mandatory prior to a contractor starting the job but if you only have a colour change Kit pink result, you have to assume there's more than 1% lead in the paint, and notify the job despite the fact that there may be only 0.5% lead in the paint (which is the level at which the colour change Kits usually change colour from yellow to pink).

Please let me know how you go with all this info and please consider photographing the colour change Kit pink tip next to the bare door wood that turned it pink, for an entry for Volcano Art Prize (see below).



Cheers

Yours Sincerely

Elizabeth O'Brien,

Lead Scientist and Lead Adviser

The LEAD Group Inc. (environmental health charity)

Editor, LEAD Action News

www.lead.org.au

www.lead safeworld.com

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<http://www.lead safeworld.com/media-page/> ; <https://nla.gov.au/nla.obj-311797282>

This online-only quarterly newsletter is often illustrated with Lead-Safety entries from our Volcano Art Prize website: www.volcanoartprize.com

Purchase LEAD Group Kits at www.lead safeworld.com/shop

“We provide lead knowledge today to guide your actions towards a lead-safe tomorrow”

Check out our Volcano Art Prize (VAP) and enter your photos, artworks or short films to win the great prizes including cash prizes! Photos or film taken while collecting samples for a LEAD Group Kit make excellent entries. Go to: www.volcanoartprize.com The deadline for VAP 2020 entries is midnight at the end of the day on Monday 27th July 2020.



2013 Volcano Art Prize (VAP) Entry. Title: **Red Means Lead!!** Lead-Safety Message: Lead Paint deteriorating off old homes poses great health risks to families and the general community.

Artist/Photographer: **Nigel Gorman, Aussie Painters Network.** Description of Work: The bright red of the lead test kit confirms the poison in not just the paint but also deep in the exposed timber of the old Queensland home. <https://volcanoartprize.com/portfolio-item/red-means-lead/>