

LEAD Action NEWS

Citizen Science Project: Is Magnetite a Lead-Safety Solution to Leadlighting?



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In 2020 when the mother of a child with an elevated blood lead level purchased a LEAD Group Kit and collected a surface dust wipe sample from the floor below the front leadlight door (pictured), the result was astronomical so the father immediately replaced the front door and the child's blood lead level began to fall.

IS MAGNETITE A LEAD-SAFETY SOLUTION TO LEADLIGHTING?



It was only after that case that I discovered Magnetite (pictured at right, in place over each of the leadlight panels) and wondered: Is Magnetite a Lead-Safety Solution to Leadlighting even though it is designed to solve noise and heat insulation problems?



Before LEAD Group Kit result

After LEAD Group Kit result

2020 Volcano Art Prize (VAP) Entry.

Title: Through the looking glass.

Lead-Safety Message: Children are the future and they may be at risk of lead poisoning from common household objects and furniture. This beautiful rose coloured leadlight glass door on the left produces dust with an extremely high lead content of 27,000 $\mu\text{g}/\text{m}^2$. Through a simple dust wipe it was determined that this glass door was unsafe. The LEAD Group recommended to get the lead dust down to 12 $\mu\text{g}/\text{m}^2$. I did this by simply changing my front door to one without leaded glass. I can rest easy knowing my kids are safer thanks to The LEAD Group.

<https://volcanoartprize.com/portfolio-item/through-the-looking-glass/>

So when a LEAD Group Kit purchaser receives a very high dust wipe lead result near lead patterned windows or leadlighting, I provide the usual wet-cleaning advice, but I also highly recommend either replacement of the leaded windows/doors with non-leaded windows, (which can still be beautiful eg see <https://www.axessglassonline.com/> and use

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the site's search function to find DesignLam - non-lead / lead-replacement stained glass, produced and distributed by Axxess Glass Products and their suppliers throughout Australia), or, if keeping the leadlighting and it is child-or pet-accessible exteriorly, add a layer of glass on the outside. If they are fixed windows (non-opening) I recommend adding another layer of glass on the inside but if they are opening windows (for which triple glazing would be too heavy), I now recommend Magnetite clear acrylic on the inside. You can obtain free quotes for supply and installation of Magnetite at <https://www.magnetite.com.au/request-a-quote.html> or by phoning 1300738763 [1300 RETROFIT] in Australia. The product can even be installed on circular windows!



More recently, I've realised that LEAD Group Kit purchasers who have high dust wipe lead results in child-inaccessible areas underneath leadlighting – is the perfect situation for some Citizen Science!

Anyone who has a very high LEAD Group Kit dust wipe lead result under leadlighting in a situation where there is no chance of child or pet access to the dust is eligible to participate in this new Citizen Science Project: Is Magnetite a Lead-Safety Solution to Leadlighting? The LEAD Group is prepared to post Magnetite Citizen Science Project participants 5 free Ghost Wipes per location with the instructions for collecting dust wipe samples under the leadlighting and to pay for the lead analysis of those samples IF you decide to go ahead with having Magnetite clear acrylic installed on the child-facing side/s of your leadlight window / door and follow the steps below to demonstrate whether that is a sufficient (potentially fabulous!) lead-exposure mitigation solution:



1. Take a photo of the dust wipe collection area and add that to the Chain of Custody form we'll also provide, along with a record of your best recollection of the time between the most recent clean of the windowsill and the collection of the sample which resulted in these two astronomical lead dust wipe near leadlighting results, and a description of whether or for how many hours a day the leadlighting is partially or completely in sunshine.
2. Before the Magnetite is installed, do a thorough wet-clean of the nearby windowsill/s, floor/s and surrounding surfaces then use the first free Ghost Wipe to collect the "baseline" windowsill and/or floor dust wipe sample. Complete the Chain of Custody form we will provide with a description of the frequency of opening and closing of the window. Post the sample to SAL for analysis and my comments on the result.

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3. After the Magnetite is installed, don't clean the windowsill or nearby floor for one month, then use the second free Ghost Wipe to collect the "one-month without cleaning after Magnetite installed" sample. Complete the Chain of Custody (CofC) form we will provide, with:
 - a note that this is the one-month without cleaning after Magnetite installed sample
 - a description of frequency of opening and closing of the window / door and
 - the fact the windowsill / floor was not cleaned since the date the Magnetite was installed, plus
 - a description of whether or for how many hours a day the leadlighting is partially or completely in sunshine.
 - Post the sample to SAL for analysis and my comments on the result.
4. Repeat Step 3 at the appropriate dates for the:
 - "3-months without cleaning after Magnetite installed" sample
 - "6-months without cleaning after Magnetite installed" sample
 - "12-months without cleaning after Magnetite installed" sample

Note, if you find that you can't not-clean, please collect the 3-, 6- and 12-month samples immediately prior to your I-must-clean moment, and describe that situation on the CofC.

Thank you for considering being a part of this vital Citizen Science Project: Is Magnetite a Lead-Safety Solution to Leadlighting? If you decide not to participate yourself, please consider asking your family, friends, work and social media contacts who have leadlighting if they'd be prepared to pay for the LEAD Group Kit to obtain the initial dust wipe result, to determine if their lead result warrants that they be advised to overcome this largely unknown leadlighting lead dust hazard before it leads to lead exposure of more young children or pets!

An example of how little-known leadlighting is as a cause of indoor lead dust contamination, is that the 28 March 2024 Sowers et al analysis United States house dust Pb concentrations are influenced by soil, paint, and house age: insights from a national survey at <https://www.nature.com/articles/s41370-024-00655-0.pdf> re: vacuum dust lead concentrations in 346 homes participating in the American Health Homes Survey II (AHHS II), a US survey (2018-2019), did not even mention leadlighting as a source of interior house dust lead.