

GENERAL INSTRUCTIONS - PLEASE READ CAREFULLY

LeadCheck® Swabs provide the user a convenient method to detect lead on any solid surface such as, steel or any other metal structure, wood, brick, cement, plaster, or skin. LeadCheck® Swabs also detect lead solder, lead leaching from porcelain enameled fixtures (sinks, tubs) and vinyl mini-blinds. This innovative and patented test swab can alert the user to the presence of hazardous levels of lead so that proper precautions can be taken to avoid the harmful effects of lead. LeadCheck® is a screening test. It is not intended to be a quantitative test for lead. Please consult a certified laboratory to quantify a LeadCheck® result.

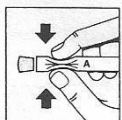
LeadCheck® Swabs contain two glass ampoules of nontoxic testing chemicals. For ALL TESTING APPLICATIONS, use the steps found in HOW TO USE LEADCHECK® SWABS - ACTIVATION.

LeadCheck® Swabs have an indefinite shelf life.

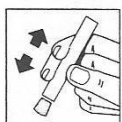
NOTE: SEE INSTRUCTIONS FOR SPECIFIC SURFACE TESTING.

HOW TO USE LEADCHECK® SWABS

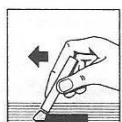
ACTIVATION



- 1) **CRUSH.** Squeeze and crush points marked "A" and "B" located on the barrel of the Swab.



- 2) **SHAKE AND SQUEEZE.** With the porous fiber Swab tip facing down, shake twice and squeeze gently until the yellow liquid comes to the tip of the Swab --- the Swab is now activated for testing.



- 3) **RUB.** While squeezing gently, rub the Swab on the test area for 30 seconds.

TEST RESULTS

- a) If the Swab tip, and/or test surface, turn pink or red the test is positive --- A HAZARDOUS LEVEL OF LEAD IS PRESENT. In general, when the Swab is used immediately after activation, the darker the developed pink color, the higher the lead content.

- b) If the Swab or test area shows no pink or red color change, the test is negative --- Lead is not detected in the test area. You should confirm that the Swab is active by using the test confirmation card (see instructions below). Also read the section on Lead Chromate in the Instructions For Specific Surface Testing.

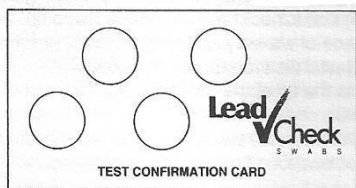
For each Swab, all tests must be completed within two (2) minutes.

- NOTE: 1. Swabs must be used immediately after being activated.**
2. Once developed, Swabs are not reusable.

HOW TO CONFIRM A LEADCHECK® RESULT

TEST CONFIRMATION CARD

Included with the LeadCheck® test kit is a Test Confirmation Card. On each card are dots containing a small amount of lead. The test confirmation card is a quality assurance measure to confirm the reactivity of the LeadCheck® Reagents when the test result is negative.



CONFIRMATION OF A NEGATIVE RESULT:

If the Swab tip does NOT turn pink or red after rubbing the test area, squeeze a drop of the LeadCheck® reagent onto one of the test dots.

If a pink or red color appears on the confirmation card dot, the Swab was activated properly and lead was not detected.

If the test dot does not turn pink or red, the test was invalid and must be repeated with a new LeadCheck® Swab.

Use the confirmation card to verify negative results only.

INSTRUCTIONS FOR SPECIFIC SURFACE TESTING FOR EXPANDED INSTRUCTIONS AND OTHER APPLICATIONS PLEASE VISIT WWW.LEADCHECK.COM

PLEASE READ THOROUGHLY

1. PAINTED SURFACES

Lead containing paint is still used for many industrial applications, most commonly as a surface coating to steel structures, concrete or wooden materials. Old oil varnishes and laquers may also contain lead. LeadCheck® Swabs reproducibly detect lead in paints at 0.5% (5,000ppm). The EPA recognizes that, when used by certified renovator, LeadCheck® Swabs can reliably determine that regulated lead based paint is not present on all surfaces except plaster and drywall. LeadCheck® Swabs may indicate lead in some paint films as low 0.06% (600ppm).

To test any painted surface:

- a) Clean and remove all dust and dirt from the area to be tested.
- b) With a clean knife or scraper, cut a small 1/4" notch at a diagonal to expose all painted layers down to the bare surface --- lead may be present in any layer of paint.
- c) Rub the activated Swab in the exposed cross-section for 30 seconds. If any of the layers contain water soluble lead pigments (lead oxide, lead carbonate), a positive result will occur; the swab and/or surface will turn pink or red.

Paint testing precautions:

1. DO NOT touch the Swab Tip --- wash hands after use.
2. Surfaces which become pink or red during testing may be washed with an all purpose cleaner.
3. Lead Chromate. When a negative LeadCheck® Swab result is obtained in an industrial or marine setting, lead chromate paint may be present. See specific instructions in Section 2.
4. Red painted surfaces/ Red Lead. See specific instructions in Section 4.

NOTE: To Activate a Swab, see steps 1 through 3 in GENERAL

2. LEAD CHROMATE

Marine and industrial paints as well as other materials may contain lead chromate (CR®). Lead chromate paints are typically red, yellow, green, or orange in color. LeadCheck® Swabs will indicate the presence of lead in these paints. However, since lead chromate is virtually insoluble in water, it can take up to 18 hours (overnight) for the pink color to appear on the Swab tip and/or the surface tested. In general as lead chromate concentration decreases, LeadCheck® color development time increases. When lead chromate paint is suspected, or a LeadCheck® Swab result on a painted surface is initially negative (no color develops on the Swab or at the test location within 30-60 seconds), squeeze a drop of LeadCheck® reagent onto one of the unused dots on the Confirmation Card to confirm the reactivity of the LeadCheck® reagents. **DO NOT touch the tip of the Swab to the dot on the Card.** If the dot turns pink, the LeadCheck reagents are active and proceed as follows:

- a) Place the Swab in a plastic bag. If possible reexamine the test Swab and or area after 30 minutes, 60 minutes or even the next morning for any color development. **OR**
 - b) Collect a paint chip from the suspect surface and crush on a clean piece of plastic wrap. Activate a LeadCheck® Swab and rub the tip directly into the crushed paint chip and if possible jam some of the paint chips into the swab tip.
 - c) Place the swab and paint chips into a plastic bag and seal. Examine the swab tip periodically up to 18 hours for color development. As the LeadCheck® reagents react with any lead chromate, the pink color will become more intense.
- Note: ChromateCheck™ Swabs can be used to instantly determine if chromate containing pigments are present.**

3. PAINT ON GYPSUM, PLASTER, AND STUCCO

Sulfates present in gypsum, plaster dust and stucco can interfere with LeadCheck® color development. It is possible with a minimum amount of care to accurately test for lead paint on plaster surfaces with LeadCheck® Swabs.

- a) Cut a notch into the paint down to the plaster surface.
- b) Clean the notch by brushing or blowing out any plaster dust.
- c) Rub an activated swab on the notched area for 30 seconds.
- d) If the Swab does not turn pink, immediately confirm the negative result by squeezing a drop of LeadCheck® Reagent onto one of the confirmation card dots. If the dot does not instantly turn pink plaster dust has blocked the LeadCheck® color development.

If it's RED, There's Lead!
EPA Recognized



Instruction Manual

WARRANTIES

LeadCheck® Swabs is a screening test for lead and should not be considered quantitative. Under controlled laboratory conditions, LeadCheck® Swabs will indicate the presence of lead as low as 1-2 micrograms. Under the conditions described in the instructions, LeadCheck® Swabs will detect high levels of leachable lead. Use of this test is not intended to replace a professional inspection. No guarantees are intended or implied.

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www.LeadCheck.com

LIABILITY

The manufacturer assumes no liability for the misuse of LeadCheck® Swabs or for the interpretation of the results by the user. If lead contamination is suspected based on this test, consult a professional testing laboratory, a deleading specialist or your local Department of Public Health.

More Testing Products From Hybrivet:

- LeadCheck® Soil** - Instant (30 minutes) results. Sensitivity to 400ppm, the EPA limit for soil in residential areas.
- LeadCheck® Aqua** - Instant tap water test. Sensitivity to 15ppb, the EPA limit for drinking water.
- LiquidCheck™** - Approved by the State of Nevada as a wastewater screen, LiquidCheck™ sensitivity can be set anywhere from 0.25-4ppm. Test is not affected by samples with high turbidity.
- CadmiumCheck™ Swabs** - Instant surface test for Cadmium ion (Cd²⁺).
- MercuryCheck™ Swabs** - Instant surface test for mercury ion (Hg²⁺).
- ChromateCheck™ Swabs** - Instant surface test for Chromate (Cr⁶⁺) in paints and on any surface.
- ArsenicCheck™ for Water** - Sensitivity 10ppb and up.
- CopperCheck™ Swabs** - Instant surface test for Copper ion (Cu²⁺).
- NickelCheck™ Swabs** - Instant surface test for Nickel ion (Ni²⁺).

4. RED SURFACES / RED LEAD

"Bleeding" may occur when testing surfaces painted red. However the color that rubs off a surface is often visibly different from the pink to red color that develops when a LeadCheck® Swab detects lead.

The easiest way to test for bleeding is to CRUSH VIAL "B" ONLY, and bring a drop of the clear colorless fluid to the tip of the Swab. Rub the tip of the Swab on the surface. Any color that appears on the tip has "bled" from the test surface and may make reading the test results difficult. If you are testing a non-metallic surface LeadCheck 1 (PB-1 Sulfide) may be used to screen the surface for lead content.

NOTE: Red Lead Primer applied to steel structures typically has a lead content greater than 50%. This instantly turns the LeadCheck® Swab tip a bright cherry red color that is easy to distinguish from the brick red color that can "bleed" from the primer onto the Swab tip.

5. PLUMBING SOLDER AND METAL ALLOYS

LeadCheck® Swabs will detect lead in solder and other metal alloys. In plumbing applications, solder is considered "Lead Free" when the lead content is less than 0.2%. LeadCheck® Swabs will always turn pink when the lead concentration is greater than 0.2%.

The following procedure is a test for lead in plumbing solder. Rubbing the Swab for too long or hard on a prepared solder surface may cause a metallic film to collect on the Swab tip. By lightly rubbing or dabbing the LeadCheck® reagent on the solder surface, the Swab tip will turn pink first when lead is present, and then turn a purple color which may obscure the pink, if tin is present. If a purple color is obtained the test must be repeated with a new LeadCheck® Swab.

- Using an emery cloth or fine sandpaper, lightly score the surface to be tested.
- Wipe off the solder joint with a paper towel or cloth.
- Activate the LeadCheck® Swab (see GENERAL INSTRUCTIONS).
- Squeeze and maintain pressure on the Swab barrel to keep a drop of the (yellow/orange) LeadCheck® reagent at the Swab tip.
- Touch the drop of LeadCheck® reagent to the prepared solder surface and lightly brush with the Swab tip. DO NOT RUB.
- If pink is observed on the Swab tip lead is present in the solder at greater than 0.2%.

6. DUST SCREENING

Dust containing lead can be present at hazardous levels in the presence of lead paint. LeadCheck® Swabs can be used to screen for lead dust. Testing for lead is especially important following maintenance, renovation or lead paint abatement projects. Cleaning the area until a negative result is obtained will save time and money and reduce the likelihood of failing a final test by inspection authorities as well as provide an ongoing visual assessment as the cleaning process proceeds.

Testing dust on nonleaded surfaces
(wood, plastic or metal)

- Activate the LeadCheck® Swab. (see General Instructions)
- Rub the activated swab in the dust for 30 seconds. If the dust contains lead, the swab will turn pink to red.

Testing dust on loaded surfaces
(material painted with lead-based paint)

- Collect a small sample of dust on a plastic dish or piece of plastic wrap.
- Activate the LeadCheck® Swab (see General Instructions)
- Rub the activated swab in the dust for 30 seconds. If the dust contains lead, a positive result will occur.

Note: Dark colored dust may obscure color development on the swab tip. If so, gather some of the dust on a porous paper towel and drip some liquid from an activated swab on to the dust. If lead is present the liquid will wick away from the pile of dust showing pink to red staining on the paper towel.

7. TESTING FOR LEAD IN VINYL PRODUCTS

LeadCheck® Swabs are a very sensitive screening test that will detect the presence of leachable lead in vinyl. To test for lead in a vinyl product:

- Abrade or scratch through all of the layers of the item being tested. Lead is often found below the surface.
- Activate a LeadCheck® Swab (See General Instructions).
- While gently squeezing the barrel of the swab, vigorously rub the abraded surface of the vinyl for 30-60 seconds.

Any pink color that appears on the test surface or the swab tip indicates the presence of lead. The color may be uneven due to the "clumping" of the inorganic lead salt. The color may become darker with time as the LeadCheck® Reagent penetrates the surface. Some lead pigments are very insoluble. Allow longer development time before assuming a negative result. Orange is not a positive result for lead.

8. TESTING FOR LEAD IN ELECTRONICS

Hybrivet Systems has two kits (Cat# PB-2M24CB, PB-2M48CB) specifically for testing small soldered connections and leads in electronic components. LeadCheck® Swabs detects lead in solder at 0.1% and is used to screen components for RoHS compliance.

Test Site Preparation

The test surface should be clean; free of dirt, fingerprints, oil, flux or other impurities. If necessary clean the surface with a suitable solvent or flux remover at room temperature. The surface should be dry before testing. For best results score the surface with a clean blade or glass cutter.

Testing Instructions

(See video illustrating testing at www.leadcheck.com)

- Activate the LeadCheck® Swab (see General Instructions).
- While squeezing gently to keep the LeadCheck® reagent at the Swab tip rub the solder surface vigorously.
- If pink is observed on the tip of the Swab lead is present in the solder at >0.1%.
- Clean the board with a defluxer or flux remover. Allow the solvent to run off the board. Let the board dry before soldering or using the component.

NOTE: Rubbing the Swab too hard or too long may cause a metallic film to accumulate on the Swab tip. This may obscure the color change of the LeadCheck® reagent. If this occurs the test must be repeated with a new LeadCheck® Swab.

9. DETECTION OF LEAD DEPOSITS ON SKIN, FABRIC, CLOTHING, OR RUGS

- Dip the porous tip of a dry unactivated LeadCheck® Swab into water. Touch tip of swab to a paper towel to remove excess water.
- Rub damp Swab vigorously over area of skin or clothing exposed to lead for about 30 seconds.
- Activate the Swab (see GENERAL INSTRUCTIONS).
- While squeezing gently to keep drop of the (yellow/orange) LeadCheck® reagent at the Swab tip, rub on a piece of waxed paper, plastic wrap, or a clean white plastic dish for about 30 seconds.
- Examine the tip of the Swab for development of a pink color.
- Pale pink indicates the presence of a minimum of 1-2µg of lead ion (Pb²⁺) on the area tested.