



Instruction Manual

DISCLAIMER

3M™ LeadCheck™ Swabs is a screening test for lead and should not be considered quantitative. Under controlled laboratory conditions, 3M™ LeadCheck™ Swabs will indicate the presence of lead as low as 1-2 micrograms. Under the conditions described in the instructions, 3M™ 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.

3M Construction and Home Improvement Markets Division
3M Center
Building 223-4S-02
St. Paul, MN 55144-1000
1-800-494-3552
www.3MLeadCheck.com
©2011, 3M. All rights reserved.

LIMITATION OF LIABILITY

The manufacturer assumes no liability for the misuse of 3M™ 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.

WARNING! May cause eye and skin irritation. Contains: Water (7732-18-5), Tartaric Acid (87-69-4), disodium Tartrate dehydrate (6106-24-7), Cellulose (9004-34-6), Lead Nitrate (10099-74-8).

Confirmation card:

Contains a chemical known to cause cancer, birth defects and other reproductive harm.

PRECAUTIONS: Avoid eye contact and skin contact. Avoid breathing of dust. Use only with adequate ventilation. Do not swallow. Wash thoroughly after handling.

KEEP OUT OF REACH OF CHILDREN.

FIRST AID INFORMATION:

Eye contact: Flush eyes with large amounts of water. If signs/symptoms persist, get medical attention.

Skin Contact: Wash affected area with soap and water. If signs/symptoms develop, get medical attention.

Inhalation: If signs/symptoms develop, remove person to fresh air, if they persist, get medical attention.

If Swallowed: Do not induce vomiting. Get medical attention.

For additional product safety and health information, call 1-651-737-6501.

4. RED SURFACES / RED LEAD

"Bleeding" may occur when testing surface is painted red. However the color that rubs off a surface is often visibly different from the pink to red color that develops when a 3M™ 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.

NOTE: Red Lead Primer applied to steel structures typically has a lead content greater than 50%. This instantly turns the 3M™ 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

3M™ 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%. 3M™ LeadCheck™ Swabs will always turn pink when the lead concentration is at least 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 3M™ 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 3M™ 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 3M™ LeadCheck™ Swab (see GENERAL INSTRUCTIONS).
- Squeeze and maintain pressure on the swab barrel to keep a drop of the (yellow/orange) 3M™ LeadCheck™ reagent at the swab tip.
- Touch the drop of 3M™ 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.

6. DUST SCREENING

Dust containing lead can be present at hazardous levels in the presence of lead paint. 3M™ 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 3M™ 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 leaded surfaces (material painted with lead-based paint)

- Collect a small sample of dust on a plastic dish or piece of plastic wrap.
- Activate the 3M™ 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

3M™ 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 3M™ 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 3M™ 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

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. (See video illustrating testing at www.3MLeadCheck.com)

- Activate the 3M™ LeadCheck™ Swab (see General Instructions).
- While squeezing gently to keep the 3M™ 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 3M™ LeadCheck™ reagent. If this occurs the test must be repeated with a new 3M™ LeadCheck™ Swab.

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

- Dip the porous tip of a dry unactivated 3M™ LeadCheck™ Swab into water. Touch tip of swab to a paper towel to remove excess water.
- Rub damp swab vigorously over area of rug 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) 3M™ 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 (Pb⁺⁺) on the area tested.

GENERAL INSTRUCTIONS – PLEASE READ CAREFULLY

3M™ 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 drywall. 3M™ LeadCheck™ Swabs also detect lead solder, lead leaching from porcelain enameled fixtures (sinks, tubs) and vinyl mini-blinds. This innovative test swab can alert the user to the presence of hazardous levels of lead so that the proper precautions can be taken to avoid the harmful effects of lead. 3M™ LeadCheck™ is a screening test. It is not intended to be a quantitative test for lead. Please consult a certified laboratory to quantify a 3M™ LeadCheck™ result.

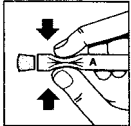
3M™ LeadCheck™ Swabs contain two glass ampoules of testing chemicals. For ALL TESTING APPLICATIONS, use the steps found in HOW TO USE 3M™ LeadCheck™ – ACTIVATION.

3M™ LeadCheck™ Swabs have an indefinite shelf life.

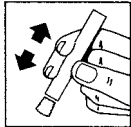
NOTE: SEE INSTRUCTIONS FOR SPECIFIC SURFACE TESTING. LIQUID CAN DISCOLOR SURFACES BEING TESTED.

HOW TO USE 3M™ LEADCHECK™ SWABS

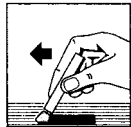
ACTIVATION



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 this 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.

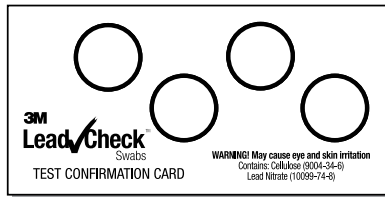
For each swab, all tests must be completed within two (2) minutes.

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

HOW TO CONFIRM A 3M™ LEADCHECK™ RESULT

TEST CONFIRMATION CARD

Included with the 3M™ LeadCheck™ Swabs 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 3M™ 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 3M™ 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 3M™ 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.3MLEADCHECK.COM

PLEASE READ THOROUGHLY

The EPA recognizes that when used by certified renovator, 3M™ LeadCheck™ Swabs can reliably determine that regulated lead based paint is not present on wood, ferrous metal (alloys that contain iron), or drywall and plaster surfaces.

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 lacquers may also contain lead. 3M™ LeadCheck™ Swabs reliably detect lead in paints at 0.5% (5,000 ppm). 3M™ LeadCheck™ Swabs may indicate lead in some paint films as low as 0.06% (600ppm).

To test any painted surface

- Clean and remove all dust and dirt from the area to be tested.
- With a clean knife or scraper, cut a small ¼” notch at a diagonal to expose all painted layers down to the bare surface – lead may be present in any layer of paint.
- 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.

NOTE: To activate a swab, see steps 1 through 3 in General Instructions.

2. LEAD CHROMATE

Marine and industrial paints as well as other materials may contain lead chromate (CR+6). Lead chromate paints are typically red, yellow, green, or orange in color. 3M™ 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, 3M™ LeadCheck™ Swabs color development time increases. When lead chromate paint is suspected, or a 3M™ 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 3M™ LeadCheck™ reagent onto one of the unused dots on the confirmation card to confirm the reactivity of 3M™ LeadCheck™ reagents. **DO NOT touch the tip of the swab to the dot on the card. If the dot turns pink, the 3M™ LeadCheck™ reagents are active and proceed as follows:**

- 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**

Paint testing precautions

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

- Collect a paint chip from the suspect surface and crush on a clean piece of plastic wrap. Activate the 3M™ 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.

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 3M™ LeadCheck™ reagents react with any Lead Chromate, the pink color will become more intense.

3. PAINT ON DRYWALL (GYPSUM) AND PLASTER SURFACES

Sulfates present in drywall (gypsum) and plaster dust can interfere with 3M™ LeadCheck™ Swabs color development. It is possible with a minimum amount of care to accurately test for lead paint on plaster surfaces with 3M™ LeadCheck™ Swabs.

- With a clean utility knife, make a nickel sized half circle cut at a low angle (about 5 degrees) cutting down to the bare drywall (gypsum) and plaster core to expose all layers of paint. Make the cut as seen in figure A.
- Fold down the semicircular flap with the knife blade so that it forms a pocket.
- Using an activated 3M™ LeadCheck™ Swab, hold the swab above the cut allowing the 3M™ LeadCheck™ reagent to flow into the pocket making sure that the liquid contacts all layers of paint both in the cut itself and the peeled back flap. Carefully rub the swab around the periphery of the



peeled back flap, taking care not to contact the drywall (gypsum) or plaster. Only rub the swab on all layers of paint found on the flap. Do not rub the swab in the pocket.

- If lead is present, a pink or red color will develop along the edges of the cut, flap, or swab tip usually within 30 seconds.
- If no pink or red color develops, immediately confirm the negative result by squeezing a drop of the 3M™ LeadCheck™ reagent onto one of the confirmation card dots. It should turn red immediately.