



## Testing\* Red Lead

### Background:

Red Lead primer is one of the oldest and most commonly used anti-corrosion pigments applied to metal surfaces. Orange-red in color, red lead forms the prime coat for most of the largest bridges in the world. Red lead is also the primer of choice for most of the intricate steel structures of buildings built in the 20th century. Resistant to even salt water, red lead was liberally applied to the hulls and decks of millions of ships. Typically, 85% red lead (lead concentration = 85%) was applied to these steel surfaces. Later, red lead primers containing as much as 95% to 98% lead were used.

### Precautions:

Some red lead primers may "chalk", that is the red-brown rust color of the red lead primer may rub off onto the tip of the LeadCheck Swab. This is not a problem because the rust color of the red lead paint is distinctly different from the bright pink LeadCheck reaction for lead.

### Method:

- 1) Lead Test
  - a) Score the surface to be tested down to the metal substrate.
  - b) Activate a LeadCheck Swab according to the directions supplied with the kit and rub the Swab into the scored surface for 30 seconds. Note the developed color.
  
- 2) "Chalking" Test
  - a) Score a second notch nearby.
  - b) Crush the B ampoule only of a second LeadCheck Swab. Squeeze until clear liquid appears at the tip and rub into the scored surface for 30 seconds. Note the developed color.

### Interpretation:

If lead is present, the developed color on the Swab Tip from the Lead Test (Test #1) above should be a bright, almost a cherry red. Contrast this to the color on the Swab Tip from the "Chalking" Test (Test #2) which should match the color on surface tested, most likely terra cotta or barn red.