

# Passivation Test Kit Copper Sulfate Solution



The copper sulfate test is intended to test the effectiveness of passivation. It can also be used to determine if there is a need for passivation.

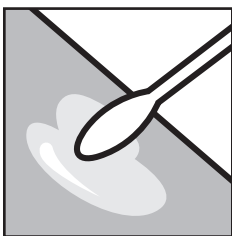
The purpose is used to find the presence of free iron which is usually induced onto the surface of a part during fabrication, transportation, polishing, etc.

The principle of the test is based on an oxidation-reduction which causes the dissolved copper ions to deposit or plate out onto the free iron particles.

## Physical Properties

- Form – Liquid
- Chemical Composition – Water, copper sulfate, sulfuric acid
- Operating Temperature – Room temperature

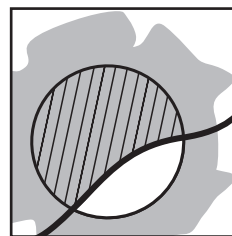
## APPLICATION PROCEDURE



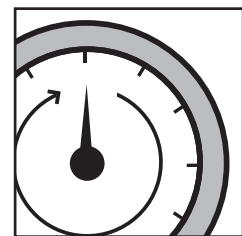
**1.** The test solution is applied to the surface of the sample representing the lot of passivated parts, applying additional solution if needed to keep the surface wet for a period of at least six minutes.



**2.** At the end of this period, the surface shall be carefully rinsed and dried with care taken not to disturb copper deposits, if present. The sample shall not exhibit copper deposits visible to the naked eye.



**3.** The copper color on the metal surface (brown or pinkish, like a penny) indicates that surface iron was still present and is considered a test failure. If no reaction occurs it is considered a test pass.



**4.** For best results, allow a few hours after passivation before testing. The copper sulfate test may not necessarily display a positive indication of iron on unpassivated parts. A failure state can be readily observed by using the copper sulfate solution on a piece of carbon steel.

## Packaging

2 oz. dropper bottle. Contains sufficient solution for hundreds of tests.

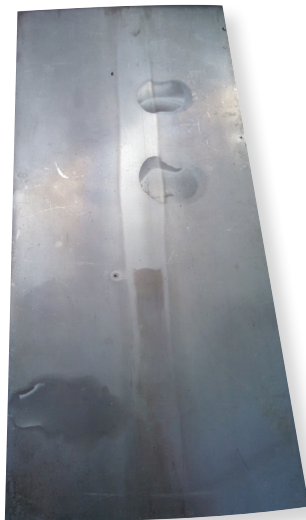
## Technical Assistance:

**Bradford Derustit Corp:** 877-899-5315 International: 714-695-0899

## Standards

The copper sulfate test meets all of the requirements of ASTM A967, ASTM A380, ASTM F1089, AMS 2700, and MIL-STD-753 standards.

### Application of Copper Sulfate Test



### After test, no exhibit of deposits.



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Our products are proudly manufactured in the U.S. in an FDA approved facility.



ASTM International Member  
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Conforms to the ASTM Designations  
A 967 and A 380.



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