

# Usage procedure for:

## Copper Stain Kit, Microwave

**Avantik Kit Item #: RS4552-125 | RS4552-250 | RS4552-500**



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### **Solutions Provided in Stain Kit:**

Rhodanine Stock Solution

Acetate Buffer, pH 8.0

Modified Mayer's Hematoxylin

Working solution preparation (prepare fresh):

### **Working Rhodanine Solution**

Rhodanine Stock Solution: 4mL

Distilled Water: 46mL

**Shake Rhodanine Stock Solution thoroughly, immediately before adding to Acetate Buffer.**

### **Conventional Procedure**

1. Deparaffinize and hydrate sections through alcohol to distilled water.
2. Fill plastic coplin jar with 50mL of **Working Rhodanine Solution**. Place slides into the jar and cover loosely with cap. Microwave until solution is hot, but not boiling.

### **DO NOT ALLOW SOLUTION TO BOIL**

**OPTIONAL:** Place slide in Working Rhodanine Solution and leave for 18 hours at 37°C. Proceed directly to step 5.

3. Carefully agitate the slides and allow the solution to cool on countertop to room temperature. Occasionally agitate the slides during this process.
4. Examine slides microscopically and repeat the heating and cooling process until the desired intensity has been reached.
5. Rinse slides 2 changes of **Acetate Buffer, pH 8.0** for 1 minute each.
6. Stain slides in **Modified Mayer's Hematoxylin** for 5-10 seconds.

Do not overstain with the hematoxylin solution or the copper may become masked by the stain.

7. Rinse slides in 3 changes of **Acetate Buffer, pH 8.0** for 1 minute each.
8. Dehydrate in 3 changes of 100% alcohol.
9. Clear and coverslip immediately with appropriate mounting medium.

### **Results:**

Copper: Light Brown to Red  
Nuclei: Blue

### **Kit Components:**

Avantik Item Numbers:

**Rhodanine Stock Solution:** RS4442-250 (250mL) | RS4442-500 (500mL)

**Acetate Buffer, pH 8.0:** RS4381-250 (250mL) | RS4381-500 (500mL)

**Modified Mayer's Hematoxylin:** RS4427-250 (250mL) | RS4427-500 (500mL)