

**Name of Procedure:**

Sodium Hypochlorite (Bleach)

**Suggested Uses:**

Sodium Hypochlorite is utilized after the Physical Developer process to enhance developed impressions. This technique will darken the actual impression while lightening the background and remove unwanted ninhydrin stains which will assist the analyst in visual examinations and photography.

**Equipment Needed to Perform Procedures:**

A - Beakers

B - Glass processing tray

C - Camera (35 mm, 2 1/4, MP-4, CU5 )

D - Fume hood

E - Rubber gloves and protective clothing

F - Face shield visor and/or safety goggles

**Chemicals Needed For Preparation of Chemical Solution(s):**

A - Five-hundred (500) ml of Sodium Hypochlorite

B - Five-hundred (500) ml of distilled water

**Formula/Directions for Preparation of Chemical Solution(s):**

1. Place five-hundred (500) ml of Sodium Hypochlorite and five-hundred (500) ml of distilled water in a large beaker or large shatterproof container.
2. Thoroughly mix the solution (the solution mixture does not require the use of a mixing devices).

**Processing Procedures for Application to Item(s) of Evidence:**

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**Note:** The item of evidence should be carefully examined after the physical developer process and photographed, if necessary, to preserve any developed impressions prior to using the process.

1. Utilizing a fume hood and rubber gloves, place the solution in a glass processing tray which will completely submerge the item of evidence.
2. Place the item of evidence in the solution for approximately fifteen (15) seconds and remove immediately.
3. The item should be immediately placed in a second glass processing tray of distilled water and completely submerged to provide a water rinse. The rinse process is extremely important as deterioration may occur if a thorough rinse is not conducted.
4. Remove the item of evidence and allow to completely air dry.

### **Steps to Preserve Developed Impressions:**

The only approved methods in preserving developed impressions is through photography, using the appropriate techniques (See Photographic Equipment/Procedures), and electronic recording (See Image Processing). The utilization of a 35 mm, 2 1/4, MP-4, or CU 5 camera will suffice for developed impressions.

### **Safety Concerns:**

Presently there are no major safety concerns associated with the use of this technique; however, the Sodium Hypochlorite will damage clothing and may irritate the eyes or skin.

### **Storage and Location of Chemicals and Solutions:**

Sodium Hypochlorite should be stored in the original shipping container until needed.

Mixed solutions should be stored in dark shatterproof containers until needed.

### **Shelf Life:**

Sodium Hypochlorite - Indefinite

Sodium Hypochlorite solutions - Indefinite.

### **Other Information:**

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This process is extremely effective on brown or darker paper bags and other colored papers to enhance the developed impressions.