

**STANDARD OPERATING PROCEDURES**  
**DIVISION OF COMPARATIVE MEDICINE**  
**UNIVERSITY OF SOUTH FLORIDA**

SOP#: 1001.1

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**TITLE:** Use of Acid Scale Remover  
**SCOPE:** Animal Care Personnel  
**RESPONSIBILITY:** Facility Manager, Maintenance Support and Cage Wash Personnel  
**PURPOSE:** To Outline the Proper Procedures for Use of Acid Scale Remover

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**I. PURPOSE**

1. The urine of rabbits and guinea pigs has a yellowish to brownish tint and becomes cloudy, principally due to the presence of both calcium and magnesium. This crystallizes on the pans and cages, making it hard to wash the urine off of the cages and pans.
2. Newer cagewashers have an acid wash cycle that will remove much of the acid scale build-up. However, many cages and pans of rabbits and guinea pigs must be pre-treated with a hydroxyacetic acid solution to dissolve and remove the urine scale crystals.

**II. RESPONSIBILITY**

1. It is the responsibility of the Maintenance Support and Cage Wash Personnel to ensure that the following procedures are followed. Always be cautious when using acid scale remover because it can burn the skin and eyes.
2. It is the responsibility of Maintenance Support and Cage Wash Personnel working with acid scale remover to dress according to **SOP# 1008** entitled "**Personal Protective Equipment**". Rubber gloves, mask, bonnet and splash protection eyewear are required to be worn when working with acids.

**III. PROCEDURE**

1. With gloved hands, take hose from Uri Solv® barrel. Insert pump into barrel and pump a spray bottle full with acid. Place spray nozzle onto the spray bottle. Label bottle according to **SOP #011** entitled "**Reagent Labeling**".
2. If using a foamer, fill foamer with the Uri Solv®, making sure you place the gray metering tip at top inside of foamer. The gray metering tip will dispense 1/2 (50%) acid plus 1/2 (50%) water. Label Foamer Device – according to **SOP #011** entitled "**Reagent Labeling**".
2. Racks and/or cages should be placed on dirty side of washroom. Spray water on racks/cages to remove excess hair and feces.

3. Using the spray bottle with acid or the foamer, spray areas with acid scale remover that has urine scale crystals on them. Areas may need to be scraped using a scraper or steel brush, which should be on dirty side of washroom. When using the foamer wear goggles and a face shield.
4. Place racks and/or cages into cagewasher, tunnel washer, or cabinet washer.

#### **IV. SAFETY CONSIDERATION**

1. **USE CAUTION WHEN WORKING WITH ACID.** Acid will burn skin or eyes. If acid is splashed on skin, rinse area using clean running water immediately. If acid is splashed into eyes; rinse eye with eye wash bottle (located in washroom).
2. Always wear a mask, bonnet, splash eye protection, and rubber gloves when using the Acid Scale Remover.
3. Label all solutions removed from their original container. See **SOP #011**.
4. Report any accidents to the Facility Manager immediately.

**Approved:**

**Date:**