

# Decontamination Guidelines for Corning Liquid Handling Equipment

CORNING

Corning® Single- and Multi-channel Pipettors  
Corning Stripettor® Ultra Pipet Controller  
Corning Step-R™ Repeating Pipettor

**NOTE:** Make sure to use protective clothing, goggles, and disposable gloves when needed. Further notes on liquid handling equipment maintenance can be found in the product's Instruction Manual.

## Corning Single- and Multi-channel Pipettors

Depending on the applications and the intensity of use, the pipettor requires periodic maintenance. The components most exposed to vapors of aggressive solutions, such as shaft elements, should be regularly checked and cleaned. See respective pipettor's Instruction Manual for more details.

### Cleaning Agents

Pipetting pushbutton, ejector pushbutton, handle, shaft nut, and adjustment knob may be cleaned using a cloth dampened in isopropyl alcohol. The parts removed from the pipettor during disassembly may be washed with distilled water or isopropyl alcohol as well.

For more information on chemical compatibility and material used, see the Chemical Compatibility of Corning Single- and Multi-channel Pipettors (CLS-AN-558), available at [www.corning.com/lifesciences](http://www.corning.com/lifesciences).

### Autoclaving

The pipettor can be sterilized in an autoclave at 121°C for 20 minutes. Sterilization under other conditions may cause damage to the pipettor.

- ▶ Sterilize the pipettors in an autoclave with an initial vacuum and drying cycle.
- ▶ Prior to sterilization, for single-channel pipettors unscrew the shaft nut slightly. With the multi-channel pipettors unscrew the nut connecting the handle and manifold. After autoclaving, these parts should be screwed tight again.
- ▶ The precision of the results should not alter if the pipetting process and autoclaving are carried out as described in the pipettor's Instruction Manual. Because a slight change in the accuracy of the dosage may occur, it is recommended to check the calibration of the pipettor after the initial first, third and fifth autoclaving cycles, and then after every 10 autoclaving cycles.

### Ultraviolet (UV) Sterilization

The pipettors are UV-resistant. However, the recommended distance from the radiation source to the exposed element should be not less than 50 cm. Prolonged and very intense UV exposure can cause discoloration of pipettor parts without effecting their performance.

### Cleaning Guidelines (single-channel pipettors)

Pipetted Liquids	Cleaning Guidelines
Aqueous solutions and buffers	Disassemble the lower part of the pipettor, rinse the contaminated parts thoroughly with distilled water, and allow it to dry. Then reassemble.
Acids and alkalis	It is recommended to clean the pipettor shaft and the lower part of the tip ejector with distilled water more frequently if acids or alkalis are handled. Clean as described in the <i>Aqueous solutions and buffers</i> section.
Organic solvents	Immerse the contaminated parts in a commercially available cleaning solution. Rinse thoroughly with distilled water and allow it to dry.
Radioactive solutions	Disassemble the lower part of the pipettor, and place the contaminated parts in a strong detergent or cleaning solution. Rinse several times with distilled water and allow to dry. Decontamination should always be followed by confirming that radioactivity has been reduced to an acceptable level. All used cleaning materials are radioactive waste and must be disposed of according to regulations.
Proteins	Disassemble the lower part of the pipettor, immerse the parts in a commercially available cleaning solution. Rinse well with distilled water and allow it to dry.

Liquid should never enter the pipettor shaft. To prevent this:

- Press and release the pushbutton slowly and smoothly.
- Never turn the pipettor upside down.
- Never lay the pipettor on its side when there is liquid in the tip.

Using disposable filter pipet tips prevents contamination of the shafts.

## Cleaning Guidelines (single- and multi-channel pipettors)

Pipetted Liquids	Cleaning Guidelines
DNA	<ul style="list-style-type: none"><li>• DNA can be eliminated by immersing pipettor parts in at least 3% (w/v) sodium hypochlorite for at least 15 minutes. Rinse well with distilled water and allow it to dry.</li><li>• Treat the pipettor parts with DNA AWAY™ or similar solution according to its instructions.</li><li>• Exposure to ultraviolet (UV, 254 nm) light for 30-60 minutes will further reduce but not eliminate DNA contamination on the pipettor surface.</li></ul>
RNA	<ul style="list-style-type: none"><li>• No special treatment is required to remove RNA because it degrades rapidly and is sensitive to ubiquitous RNases.</li></ul>
DNase	<ul style="list-style-type: none"><li>• DNase can be destroyed by autoclaving (15 min., 121°C).</li></ul>
RNase	<ul style="list-style-type: none"><li>• RNase can be removed by cleaning with a detergent solution, followed by thoroughly rinsing with water and then 95% ethanol to speed the drying process. Pipettor parts should be then soaked in a 3% hydrogen peroxide solution for 10 minutes. Finally, rinse them thoroughly with DEPC-treated water and allow it to dry.</li><li>• Treat the parts with RNase AWAY™ or similar solution according to its instructions.</li></ul>
Viruses, mycoplasma, bacteria and fungi	<ul style="list-style-type: none"><li>• Ultraviolet (254 nm) radiation is a practical method for inactivating viruses, mycoplasma, bacteria and fungi.</li><li>• If the inner parts of the pipettor are exposed to UV light, make sure that the piston and O-rings are sufficiently lubricated.</li></ul>

## Corning® Stripettor® Ultra Pipet Controller

### Cleaning Agents

The pipet controller does not require any maintenance. Its external parts may be cleaned with a swab dampened with isopropyl alcohol.

### Autoclaving

The nose piece and the pipet holder may be autoclaved at 121°C for 20 minutes. After autoclaving, dry the pipet holder. The filter included in the set may be sterilized by autoclaving at 121°C for not more than 15 minutes.

### Ultraviolet (UV) Sterilization

The outer body of the pipet controller is UV-resistant. The recommended distance from the radiation source to the exposed element should be not less than 50 cm. Prolonged and very intense UV exposure can cause discoloration of pipet controller parts without affecting its performance.

### Cleaning Guidelines (Nose piece ONLY)

Pipetted Liquids	Cleaning Guidelines
DNase	<ul style="list-style-type: none"><li>• DNase can be destroyed by autoclaving (15 min., 121°C).</li></ul>
RNase	<ul style="list-style-type: none"><li>• RNase can be removed by cleaning with a detergent solution, followed by thoroughly rinsing with water and then 95% ethanol to speed the drying process. Pipettor parts should be then soaked in a 3% hydrogen peroxide solution for 10 minutes. Finally, rinse them thoroughly with DEPC-treated water and allow it to dry.</li><li>• Treat the parts with RNase AWAY™ or similar solution according to its instructions.</li></ul>
Viruses, mycoplasma, bacteria and fungi	<ul style="list-style-type: none"><li>• Ultraviolet (UV, 254 nm) radiation is a practical method for inactivating viruses, mycoplasma, bacteria and fungi.</li></ul>

To prevent contamination during breaks, store the pipet controller on the wall hanger or charging stand. Never put aside the pipet controller if there is liquid in the pipet.

## Corning® Step-R™ Repeating Pipettor

### Cleaning Agents

It is recommended that warm water or isopropyl alcohol are used for cleaning. To disinfect the pipettor, conventional disinfectants suitable for polycarbonate can be used.

### Autoclaving

The device should not be autoclaved.

### Cleaning Guidelines

Pipetted Liquids	Cleaning Guidelines
RNase	<ul style="list-style-type: none"><li>• RNase can be removed by cleaning with a detergent solution, followed by thoroughly rinsing with water and then 95% ethanol to speed the drying process. Pipettor parts should be then soaked in a 3% hydrogen peroxide solution for 10 minutes. Finally, rinse them thoroughly with DEPC-treated water and allow it to dry.</li><li>• Treat the parts with RNase AWAY™ or similar solution according to its instructions.</li></ul>
Viruses, mycoplasma, bacteria and fungi	<ul style="list-style-type: none"><li>• Ultraviolet (UV, 254 nm) radiation is a practical method for inactivating viruses, mycoplasma, bacteria and fungi.</li></ul>

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