

CMA 1, 2.5, 5 & 10 mL Gastight Microsyringes: Handling & Maintenance

Models CMA8309020, CMA8309021, CMA8012203, CMA8012204

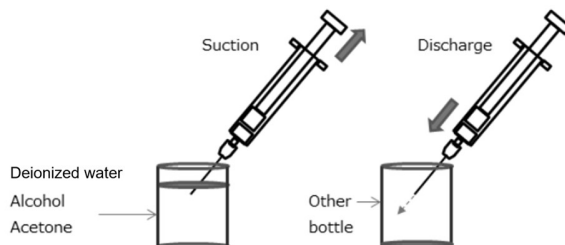


CMA glass microsyringes provide a perfect liquid and gas seal (0.5Mpa airtightness) maintained by a PTFE tip. Routine maintenance is important for these syringes like any other precision instrument.

CLEANING THE SYRINGE

Following the steps below, clean the syringe immediately after use to avoid crystallization of the solute. Please use an organic solvent that dissolves sample contaminants when cleaning the syringe. Methanol, acetone, hexane, etc. are generally suitable.

1. **REMOVE.** Empty the syringe of perfusion fluid. Slowly aspirate deionized water/purified water up to maximum volume and discharge into separate container to prevent contamination. Repeat this motion 10 or more times to eliminate liquid inside.
2. **CLEAN.** E.g. if albumin or a colloid has been added to the perfusion fluid. Slowly aspirate cleaning solvent up to maximum volume and discharge into separate container to prevent contamination. Repeat this motion 10 or more times to eliminate liquid inside.

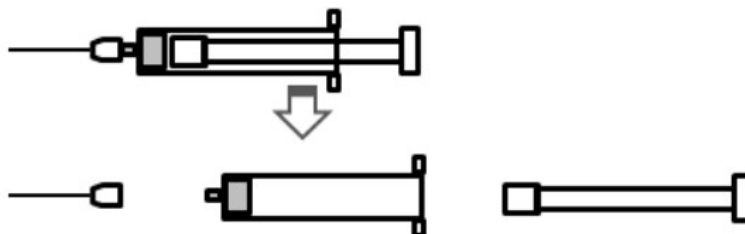


IMPORTANT NOTES:

- Be mindful of the needle tip. Careful handling is recommended to prevent damage.
- Aspirate and discharge liquid slowly during cleaning as the I.D. of the needle is small.
- DO NOT soak the entire syringe in the solvent. This may damage adhesive joints within the syringe.



3. **DRY.** Remove the plunger from the syringe and allow to fully air dry while placed on a clean non-woven cloth. Be sure to remove the plunger and needle. Air drying should not be performed exceeding 60°C.

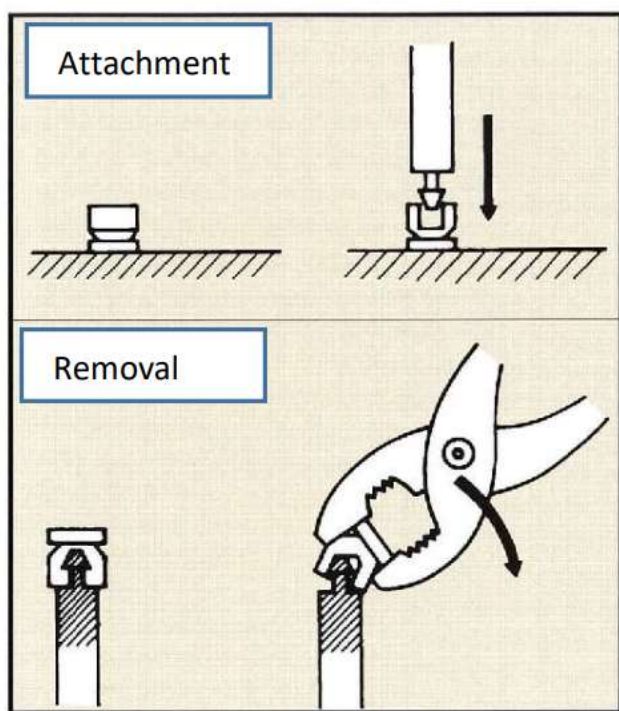


4. **REASSEMBLE.** After drying, check that there is no dust on the PTFE tip. Carefully push and insert the plunger straight into the syringe. **Do not interchange the plunger with another syringe.**
5. **STORE.** Store syringe in a clean case under the following environmental conditions:
 - Ambient temperature: -10 C to 50 C
 - Humidity: 20% to 90%
 - Lighting: Away from direct ultraviolet light.

NOTES ON PLUNGER CARE

1. If the plunger-to-barrel contact becomes loose replacement of the PTFE tip or plunger replacement is required.
2. Avoid excessive pumping when the plunger is dry. Dry operation will cause wear of the PTFE tip.

PTFE TIP REPLACEMENT PROCEDURE



1. REMOVE TIP. Grasp the top seal with pliers and pull it downward as shown in the figure to remove it. Please note that if you grab it below the top seal, the tip part of the plunger may be bent or scratched.

Cutting the rear end of the PTFE tip prior can facilitate removal. If doing so, be careful not to scratch or damage the O-ring with a blade.

2. PREPARE SURFACE. Remove any debris remaining on the plunger tip after removal.

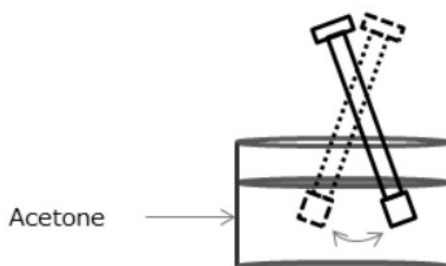
3. INSERT TIP. Place new PTFE tip on a clean, flat surface with the plunger straight and fully inserted into the PTFE tip.

IMPORTANT NOTES:

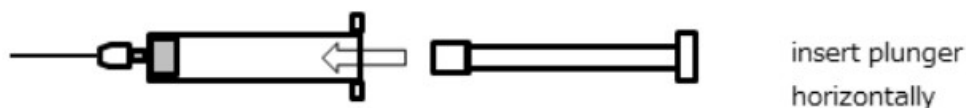
- Make sure there is no gap between the PTFE tip and the plunger.
- For placement of an O-ring, be sure to insert it while it is set in the plunger.
- Please make sure that there are no scratches on the O-ring before using.

PLUNGER REPLACEMENT PROCEDURE

1. Gently shake the replacement plunger in solvent and air dry on a clean non-woven cloth.



2. After drying, rinse the plunger tip in acetone for 1-2 sec. and carefully insert the plunger straight into the syringe.



3. Slowly make one stroke and check that there are no gaps or rattling between the PTFE tip and plunger.

ORDERING INFORMATION

Item #	Product Name
CMA8309020	Microsyringe 1 mL Gastight
CMA8309021	Microsyringe 2.5 mL Gastight
CMA8012203	Microsyringe 5 mL Gastight
CMA8012204	Microsyringe 10 mL Gastight
CMA7431083	Replacement Needles for Microsyringes (Exmire), pkg. of 5
CMA7433015	Replacement PTFE Syringe Plunger Tips for 1 mL Microsyringe, pkg. of 5
CMA7433016	Replacement PTFE Syringe Plunger Tips for 2.5 mL Microsyringe, pkg. of 5
CMA8012206	Replacement PTFE Syringe Plunger Tips for 5 mL Microsyringe, pkg. of 5
CMA8012206	Replacement PTFE Syringe Plunger Tips for 10 mL Microsyringe, pkg. of 5