

SYRINGE USE, CARE AND MAINTENANCE INSTRUCTIONS

XCHANGE[®] syringes for eVol[®]

Key benefits of SGE Analytical Science syringes are:

- **Longer Life.**
- **Superior Performance and Robustness.**
- **Reduced Carryover.**

This syringe is a precision instrument. In order to maintain optimum performance and long life, a few simple care issues should be considered.

Syringe Use:

- Always inspect the syringe before use. Check the barrel for cracks and the needle tip for burrs.
- To eliminate carryover between samples, flush the syringe with solvent 5-20 times, remembering to discard the first 2-3 washes.

Installing the Syringe:

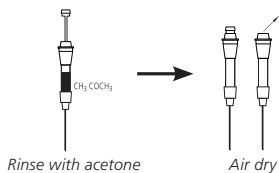
- Pull up on the bottom collar of the eVol[®] and insert the back (plunger end) of the syringe into the bottom of the instrument. Ensure the syringe plunger is in the zero position.
- If the syringe has not been used with the eVol[®] Unit, it will automatically re-zero the syringe.

Removing the Syringe:

- Pull up on the bottom collar of the eVol[®] to remove the syringe.
- Pull the syringe out. The plunger will be extended as you pull out the syringe and it disengages from the magnet.

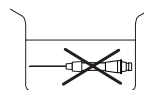
Syringe Cleaning:

- Syringe cleaning agents will usually depend on the contaminating material. Methanol, methylene chloride, acetonitrile and acetone are commonly used solvents for cleaning.
- Clean externally by wiping with a tissue.
- After the syringe has been cleaned, rinse the syringe with acetone, remove plunger and air dry.



Sterilization modes:

- Autoclave: Remove plunger from the barrel prior to autoclaving. Set autoclave to a maximum temperature of 100 °C. Allow syringes to come to room temperature before inserting the plunger back into the barrel
 - Gas: Use ethylene oxide
- Do not immerse the entire syringe in solvent as this may damage the adhesive used to bond parts of the syringe.



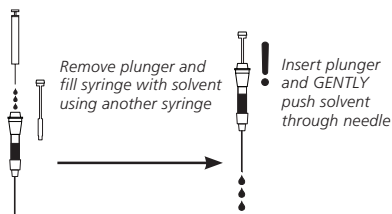
Plunger Care:

- Avoid cycling the plunger when the syringe is dry.
- To remove plunger unscrew black plunger guide.
- Replacement plungers are available:

Part Number	Description
2910380	5 µL eVol [®] replacement plunger
2910382	50 µL eVol [®] replacement plunger
2910383	100 µL eVol [®] replacement plunger
2910384	500 µL eVol [®] replacement plunger
2910385	1 mL eVol [®] replacement plunger

Needle Care:

- Check the needle for burrs prior to use. Use a fine emery board or carborundum to remove burrs.
- To unblock needles, remove the plunger and fill the syringe with solvent using another syringe. Re-insert the plunger and gently push solvent through needle. Never force the plunger. Too much pressure may crack the syringe barrel.



- The following SGE syringe needle cleaning products are available:
 - Needle Cleaning Kit (Part No. 031782): The kit contains a range of stylet wires for needle cleaning, tweezers and a surfactant material for barrel cleaning.
- To replace needles unscrew front cover nut and spring, remove needle. Carefully insert replacement needle into the front of the syringe, slide spring and cover nut over the needle and screw nut onto the front screw of the syringe barrel.
- For replacement needles refer to www.sge.com

NOTE:

- *DO NOT return any syringe to SGE unless requested to do so by an authorized SGE representative.*
- *DO NOT return any syringe that has been used with radioactive, infectious or hazardous materials.*
- *Any syringe being returned must be clearly marked with a Return Authorization Number and accompanied by a signed decontamination declaration, both are available from your SGE representative.*

Syringe Storage:

- To protect against breakage store the syringe in its original packaging or on the eVol® stand.
- Always thoroughly clean the syringe before storage.

WARRANTY

All SGE syringes are warranted to meet the stated quality and performance specifications and to be free of defects in material or workmanship. The warranty implies free replacement of a defective syringe only upon proper written proof of the defect and if requested by SGE, the return of the defective product in its original packaging. It does not apply to mishandling of product by the customer, either in storage or use.

Syringe Conformance Certificate

This syringe has been manufactured using measuring equipment traceable to International Standards. SGE Analytical Science ensures that the displacement volume is within the conformance specifications. For applications requiring individual syringe calibration, SGE Analytical Science offers a factory calibration service. Contact your nearest SGE Analytical Science office or dealer for details.

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