

### Top 10 tips to avoid contamination in pipetting



#### Clean your pipettes regularly

For everyday cleaning use 70% ethanol to wipe pipette. If you use other decontamination agents, remove the residual detergents with distilled water. Choose pipettes with easy-to-clean design to ensure easy disassembling without tools. Use fully autoclavable pipettes in contamination-prone workflows and follow the manufacturer's autoclaving instructions.



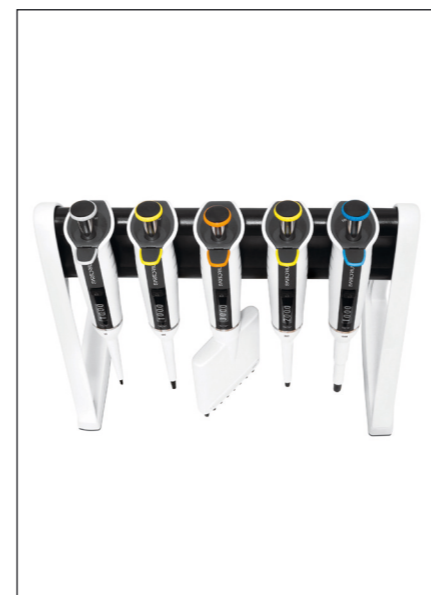
#### Use Safe-cone filters or filter tips

Safe-Cone filters protect the pipette from contamination and volatile liquids. It is recommended to change the filters daily (after 50 to 250 pipetting) and always in case of overaspiration. Filter tips gives the best protection for both the samples and the pipette. Choose filter tips that have sufficient space between filter and sample.



#### Choose air-tight tip wrapping

Air- and water-tight tip rack wrapping protects the tips from contaminants during storage. To leave the contaminants out, remove the wrapping just before placing the tip rack into the laminar flow hood.



#### Use stands for storage

Use stands to protect pipettes from contamination and spills on working surface. Stands also help protect your pipettes from falling, thus helping to keep them in pristine condition.



#### Check tip purity certification and testing limits

Check the purity certification of your tips for testing limits to ensure they are strict enough for your experiment. Automated tip manufacturing, batch testing and strict testing limits are good indicators for assured tip purity.



#### Restrict the chances of contamination to spread

Moving of pipettes from one laboratory to another is a common source of contamination. Pipettes should be clearly marked especially in contamination-prone workflows and not to be shared with other workflows and laboratories.



#### Be smart in multidispensing

During multidispensing, tips can carry over contamination if not changed between samples. Dispense reagents first and then add samples - with a tip change between each sample addition.



#### Ensure the tip sterility

When using pre-sterilized pipette tips, make sure the manufacturer's tip sterilization process is certified and regularly validated and monitored. Remember not to autoclave filter tips because the polyethylene filters do not tolerate the autoclaving temperature. When autoclaving pipette tips, make sure that the autoclave is functioning properly.



#### Avoid splashes

Pipette with constant pipetting rhythm to avoid contamination by splashing. You should pipette viscous liquids slowly or use an electronic pipette in slow speed setting.



#### Use tips long enough to avoid contamination of the pipette

Contamination on the pipette can spread to the next samples. Choose pipette tips that are long enough to reach the bottom of your sample vessel without the pipette itself touching the opening of the vessel.