Thermo Scientific Multidrop Combi nL

The liquid path of the Thermo Scientific Multidrop Combi nL reagent dispenser is optimized for low-volume dispensing, which leads to the need for regular maintenance every time the instrument is used. For example, the valve orifice is only 0.1 mm and can leak or get clogged if not properly maintained.

Before you start

Pre-filter the reagents to remove particles.
The filter included in the liquid path is meant for filtering occasional particles only.

While dispensing

Make sure that you prime the liquid path generously before you start the actual dispensing, preferably with a dead volume of + 1 ml. This ensures that best performances from the very beginning.

If there are persistent air bubbles in the system or the valves start dripping, keep the Tip Wash button pressed for several seconds. The liquid comes in pulses from one channel at a time. This maintains the maximal flow through the dispensing valve and clears the liquid way.

After dispensing

The instrument needs to be pressurized for all dispensing actions, including cleaning procedures.

Every time

Empty the reagent line either by using the Empty button (backflush) or change an empty reagent reservoir and use the Prime button to empty the tubings. Add distilled water to the bottle and prime through the liquid path. Use a 10–15 ml volume.

Tip! Put water in the 50 ml tube and place that into the bottle – it saves the effort of cleaning the bottle.

Frequently

Use a mild detergent (e.g. TWEEN®-20 or Triton™ X-100) or a cleaning solution (e.g. 1% Micro-90® cleaning solution by Cole-Parmer) to clean the liquid path. Use a 10–15 ml volume and prime through the liquid path.

Rinse the liquid path **twice** with distilled water. Use two separate tubes of water since there are remains of detergent on the outer surface of the tubing that mixes with the first rinsing water.

Tip! Put cleaning solution and water in the 50 ml tube and place that into the bottle – it saves the effort of cleaning the bottle.

Multidrop Combi nL reagent dispenser

Multidrop Combi nL dispensing valves

If you prefer
Rinse the liquid path with 70% ethanol or isopropanol.

Note! Make sure that the liquid path is already cleaned before this step to avoid precipitating the protein remnants.

Potential problems – Particles in the system, valve leaking or clogged

Corrective action: keep the Tip Wash button pressed for several seconds. The liquid comes in pulses from one channel at a time and pushes the smallest particles out using the maximal flow through.

The thorough cleaning procedure washes the whole liquid path with the backflush feature. The purpose of this is to push all the dirt away from the valves.

- Empty the reagent line. Use either an empty reagent vessel or put a 50 ml tube inside the reagent vessel for waste.
- Remove the filter from the liquid line by pulling it out from the tube.*)
- Place a disposable reagent basin or a 96-well plate filled with 20–50 ml of filtered liquid under the dispensing valves so that the liquid is in contact with the valves.
- Press the Empty button to rinse the valves and tubings.
- Carry out the rinse procedure using the following reagents:
    1. Distilled water 10 ml
    2. Detergent or cleaning solution 20–50 ml
    3. Distilled water 10–15 ml
    4. Distilled water 10–15 ml
- Clean the filter and replace it into the end of the liquid line.

Clean the filter regularly

Weekly cleaning is recommended. An ultrasonic cleaner may be used. The filter can also be replaced with a new one.

Instrument not in use for several days or weeks

Rinse the liquid path with 70% ethanol or isopropanol to avoid microbial growth from developing.

Note! Make sure that the liquid path is already cleaned before this step to avoid precipitating the protein remnants.

For more details, refer to the Thermo Scientific Multidrop Combi nL reagent dispenser User Manual (Cat. no. N07171) or visit thermoscientific.com/multidrop.

*)Removing the reagent filter.

A reagent filter.

Cleaning the tubings using a reagent basin.

North America: USA/Canada 1 800 345 0206
Europe: Austria +43 1 801 40 0, Belgium +32 53 73 42 41, France +33 2 2803 2180, Germany national toll free 08001-536 376, Germany international +49 6184 90 6940, Italy +39 02 02 95059 448, Netherlands +31 76 571 4440, Nordic/Baltic countries +358 9 329 100, Russia/CIS +7 (495) 739 76 41, Spain/Portugal +34 93 223 09 18, Switzerland +41 44 454 12 12, UK/Ireland +44 870 609 9203
Asia: China +86 21 6865 4588 or +86 10 8419 3588, India toll free 1800 22 8374 India +91 22 6716 2200, Japan +81 45 453 9220, Other Asian countries +852 2885 4613
Countries not listed: +49 6184 90 6940 or +33 2 2803 2180

www.thermoscientific.com
www.thermoscientific.com/multidrop

MNALHcombiNLmaintG
1512850 0610

Thermo SCIENTIFIC