## **Preventative Cleaning of ELSD Detector**



#### Chromatography Technical Note TN21, June 2020

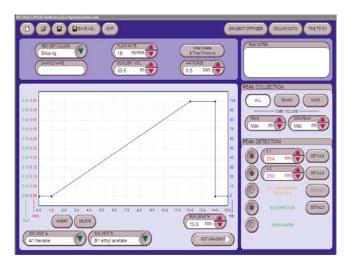
### in the Combi*Flash®* System

#### **Overview**

Periodic cleaning of the spray chamber will keep the Combi*Flash* operating at maximum performance. Use the following steps if spray chamber cleaning is recommended by the software.

#### **Cleaning the ELSD Detector**

- 1. From the run screen select the METHOD EDITOR.
- 2. In the Peak detection window, select the ELS DETECTOR radio button then select DETAILS.
- 3. Set the spray chamber temperature to 40°C.
- 4. Exit the Edit Method screen and accept the changes, then allow approximately 5 minutes for the chamber to reach the set temperature.



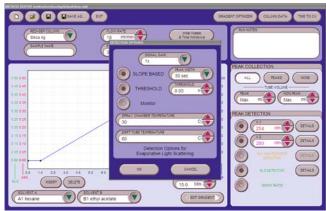


Figure 1: Method Editor screens

5. Using a wash bottle and appropriate size tubing, fill the p-trap drain line with 40 ml of Acetone and wait 1 minute.



#### Figure 2: Line filled with 40 ml of acetone

6. Place the open end of the p-trap drain line in a 100 ml (or greater) beaker.



# Figure 3: Draining the acetone into a 100 ml beaker

7. Allow the acetone to drain out of the unit by dropping the end of the p-trap drain line, while it is in the 100ml beaker, below the p-trap drain line level.

#### **Note**

The acetone may have translucent flakes or brown particles in it. This is normal.

8. Fill the ptrap pump drain line with 40 ml of Isopropyl Alcohol.

- 9. Hold the p-trap pump drain line above the unit for 1 minute.
- 10. Place the open end of the p-trap drain line in a 100 ml (or greater) beaker.
- 11. Allow the Isopropyl alcohol to drain out of the unit by dropping the end of the p-trap drain line, while it is in the 100ml beaker, below the p-trap drain line level.

#### **Note**

The Isopropyl alcohol may have translucent flakes or brown particles in it. This is normal.

- 12. Use the DETAILs menu to set the spray chamber to  $60^{\circ}$ C.
- 13. Fill the p-trap drain line with 40 ml of Isopropyl alcohol.
- 14. Drape the p-trap drain line over top of the unit and let set for 20 minutes.



Figure 4: P-trap pump drain line draped over the unit

- 15. Place the open end of the p-trap drain line in a 100 ml (or greater) beaker.
- 16. Allow the Isopropyl alcohol to drain out of the unit by dropping the end of the p-trap drain line, while it is in the 100ml beaker, below the p-trap drain line level.

#### Note

The Isopropyl alcohol may have translucent flakes or brown particles in it. This is normal.

- 17. To ensure that there is no fluid remaining in the drift tube, set the drift tube to 90°C. Go to the MANUAL CONTROL window to turn the gas on and let run 10 minutes. Turn off the gas.
- 18. Press FILE and then NEW to reset the method temperatures. Use the instrument normally.





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