Instructions: Resuspension of Concentrated Calibration Standards

Most calibration standards for GC methods are now shipped as concentrates and require resuspension with hexane prior to use. Please follow these instructions to resuspend; a video of these instructions is also available on our website: www.midi-inc.com.

Supplies:

- Concentrated Calibration Standard in ampoule
- Ampoule opener (MIDI supplied)
- Neck holder (MIDI supplied)
- GC vial rack
- Hexane (HPLC-grade, ACS certified) **NOTE: It is recommended that the hexane be tested prior to use to confirm purity (Total Named Peaks = 0).**
- Glass pipette & pipettor
- GC vial (crimp cap preferred for refrigerated storage > 24 hrs)

1. **Open Ampoule**

   Note: must be at room temperature to eliminate condensation as a potential contaminant. Place the neck holder and GC vial in a rack. Place the opener around the ampoule neck. Holding the opener, press out and away with thumb to break open. Place the neck, open end up, into the neck holder.

   CAUTION: edges may be sharp, handle with care.

2. **Resuspension**

   Using a glass Pasteur pipette, add 2.0*mL ± 0.2mL of hexane (HPLC-grade, ACS certified) to a GC vial. Remove some hexane and flush the entire interior of the ampoule neck thoroughly, avoiding overflow, while conserving the hexane. Transfer the hexane from the neck to the ampoule body. Transfer the rest of the hexane from the GC vial into the ampoule body & flush repeatedly to rinse the interior sides and bottom of the ampoule. Transfer the suspension (which now contains the calibration standards) back into the GC vial; this is now the **working stock**.

3. **Use or store**
   - To use, **aliquot** ~100ul of the working stock into a new GC vial with a glass insert (no polymer feet) and seal for analysis.
     - If unused, store <120 days refrigerated (-20° to 8°C)
     - If the septum has been pierced, the vial is usable for one day
   - To store **working stock,** seal the GC vial with a crimp cap (PTFE/Silicone/PTFE septum) for <120 days refrigerated (-20° to 8°C)
   - Store unopened **concentrated ampoules** at 2°C to 25°C

* P/N 1300-C + **2.0 mL** hexane is equivalent to 1300-AA Calibration Standard
P/N 1208 + **2.0 mL** hexane is equivalent to PLFA Calibration Standard
P/N 1300-C + **1.0 mL** hexane is equivalent to 1200-A Calibration Standard

Questions? Please contact: support@midi-inc.com

Crimp-Cap Vial Items for Long-Term Calibration Mix Storage

1. **Crimper**
    a. Thermo Scientific Crimper for 11mm crimp seals
        i. Fisher Scientific Part # 03-375-7

    Or

    b. Agilent 11mm Electronic Crimper with Lithium Ion Battery
        i. Agilent Part # 5190-3188

2. **Decrimper**
    a. Thermo Scientific Decrimper for 11mm crimp seals
        i. Fisher Scientific Part # 03-375-8A (or equivalent)

    Or

    b. Agilent 11mm Electronic Decapper with Lithium Ion Battery
        i. Agilent Part # 5190-3190

3. **Vials**
    a. Restek Crimp-Top Vial, 2mL; Amber; 12 x 32mm; 11mm Crimp; With Graduated Marking Spot; Pack of 100
        i. Fisher Scientific Part # 06-718-860

    Or

    b. Agilent Crimp-Top Vial; 2mL wide opening; 12 x 32mm; 11mm Crimp; Amber with Write on Spot; Pack of 100
        i. Agilent Part # 5183-4496

4. **Caps**
    a. Agilent 11mm Crimp-Top Silver aluminum cap; PTFE/silicone/PTFE septa; Pack of 100 **(no rubber septa)**
        i. Agilent Part # 5181-1211

    Or

    b. Fisherbrand Crimp Cap; 11mm, Aluminum; PTFE/Silicone/PTFE Septa; Large Opening - Pack of 100 **(no rubber septa)**
        i. Fisher Scientific Part # 03-391-34