

## Total Nitrogen Sample Acidification Instructions

**Caution: Before handling the 98% Sulfuric acid dropper, refer to Safety Data Sheet (SDS) for chemical and safety information. Wear appropriate gloves and safety glasses when working with acid dropper.**

Be aware that preservatives dispersed from dropper-type bottles could become contaminated and could result in the contamination of subsequent samples.

Acid that has discolored has oxidized but should still function properly.

The disposal of unusable acid is the LPP staff's responsibility. If the acid is unusable or contaminated, notify LPP staff and schedule a pick-up of the unused portion in the secondary container.

### Acidification Procedure:

1. **Read all safety information including the Safety Data Sheet (SDS) and watch the acidification [video tutorial](#)** before handling the acid.
2. **Put on appropriate disposable gloves and safety glasses.** Wear closed-toe shoes and clothing that covers the arms and legs but is not too baggy around your lower arms and wrists. Tie hair back if it is long. Do not put gloved hands near eyes or mouth at any point.
3. Secure nitrogen samples (blue cap) upright in a sample rack in a location to facilitate easy and safe dispensing of acid **near a sink or shower to flush any spilled acid**. Ensure no pets or children are around while performing the acidification. **NEVER PERFORM ACIDIFICATION IN THE FIELD.**
4. Uncap all samples to be acidified before opening the acid container.
5. Carefully remove the acid dispenser from its secondary container and unscrew the cap.
6. **Dispense 2 drops of 98% sulfuric acid into each sample**, taking care not to splash or dip the dropper into the sample.

7. **Immediately recap the acid dropper** and return it to the secondary container.
8. Cap all the acidified samples. Be sure the caps are threaded properly.
9. Once each sample is capped, gently invert each sample bottle 5 times to mix.
10. Carefully remove gloves so as not to touch exterior side of glove with bare hands and dispose in plastic bag in the trash. **Do not reuse or put used gloves back in with the clean gloves.**
11. Store samples in a safe refrigerated location or on ice until sample pick-up.
  - a. **Label samples as hazardous and do not store near food or drink.**
12. Wash your hands thoroughly with soap and water.

***If acid comes into contact with your skin, clothes, or eyes, immediately flush the area with water for at least 15 minutes and immediately contact a medical professional.***

If you spill the concentrated acid or acidified sample on a surface, immediately wipe up the spill with an absorbing material such as a paper towel. Rinse the area where the spill occurred with water. Dispose of acid-soaked materials and gloves in a sealed plastic bag in the trash.

# Safety Agreement Form for Concentrated Acid Field Droppers

VTDEC, WSMD, LaRosa Partnership Program 2023

You have received a 15 mL dropper of concentrated 98% sulfuric acid for use in field acidification of total nitrogen water samples. By signing below, you confirm that you have received, read, and understand instructions (including watched the [video tutorial](#)) to properly handle and store the acid, including the use of personal protective equipment (safety glasses and nitrile gloves) and secondary containment of acid droppers.

You have received, read, and understand the Safety Data Sheets for this chemical and understand that concentrated sulfuric acid is highly caustic and harmful if ingested, inhaled, or comes into contact with skin or eyes. You also understand that any skin, eyes, or clothing that comes in contact with the acid must be thoroughly flushed with water for at least 15 minutes and requires immediate medical attention.

Printed name	Signature	Date