

How Old Are Your Chemical Reagents?

Have you attended a Stream Team Level 1 Water Quality Monitoring Workshop and received your chemical monitoring equipment? If so how old are your reagents?

Some of the reagents will have an expiration date printed on the package, for example:

Dissolved oxygen 1 & 2 (on individual packets)	Sodium chloride calibration solution (on side of bottle)
Dissolved oxygen 3 (on side of bottle)	Nitrate reducing reagent (on side of bottle)
pH buffer solution (on side of bottle)	Chloride strips (on bottom of the bottle)

However, not all of the reagents will have this marked. Remember, the average 'shelf life' for most chemicals is two years if not exposed to light, extreme temperatures and/or humidity.

Sodium thiosulfate	Mixed acid (nitrate kit)
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Other than being past their expiration dates, indications your reagents may no longer be viable include being off color, clumped, or you don't get a reaction.

Other equipment you may check:

- Is the red line on your thermometer interrupted?
- Are the lines on the nitrate kit vials worn off?
- Will your pH pen not calibrate because you can no longer turn the calibration screw far enough?
- Is any of your glassware chipped or cracked?
- Has the disk at the bottom of your turbidity tube fallen off?

If any of your equipment or reagents needs to be replaced, you can do this at the Stream Team website's online Equipment Order Form: <http://www.mostreamteam.org/kitform.htm>.

Please do not feel guilty requesting new equipment or chemical monitoring reagents. In order to collect usable data, it needs to be collected accurately. This includes not only your methods but also your materials. It is important to collect your data with properly functioning equipment and viable reagents.

Expired reagents can either be poured down the drain or thrown in the trash. HOWEVER, the nitrate reducing reagent (including any empty bottles) and any waste generated by the LaMotte Nitrate Kit needs to be returned to Program staff for proper disposal. Remember to containerize all your nitrate waste in the cubitainer provided by the Program or other heavy-walled container such as a bleach or detergent bottle, and labeled as Stream Team Nitrate Waste.