## Preparation of Standard Solutions General Procedure GEL

(Rev C; Jan 8, 2019)

1. Always use acid-washed class 'A' volumetric glassware and certified autopipettors Available sizes are: auto-pipettors 0.5-10, 20-100, 100-1000 uL, 1-5, and 1-10 mL;

flasks – 10, 25, 50, 100, 250, 500, and 1000 mL.

- 2. Make large volumes of solutions as appropriate, this will reduce the margin for error.
- 3. Pre-rinse flasks  $\geq$  3 x's with nanopure water.
- 4. Add nanopure water to flask first (usually about 2/3 full). Keep stoppers on flasks except when adding solutions. Never lay stoppers on benchtop.
- 5. Pour stock solution into beaker or other secondary container before pipetting. Never put pipette tips into stock reagent bottles.
- 6. Pipette <u>exactly</u> the appropriate amount into flask. When using auto-pipettes, tip should be rinsed with working solution 1 or 2 times to make sure all stock is delivered. Volume can be checked by pipetting water onto balance.
- 7. Add nanopure water until line is even with bottom of meniscus. Fill exactly to line using a pasteur pipette or rinse bottle. Mix Throughly.
- 8. Use the amounts of standard stock solutions and nanopure water combinations suggested in the methods for the protocol. If not available then the following formula can be used to obtain the correct dilution:

mL standard stock =	desired conc. X	total final volume
	conc. of stock standard	