

# How to prepare 3 L of 1X TBE buffer using a 25.5 g container of TBE powder (RG-1502-05)

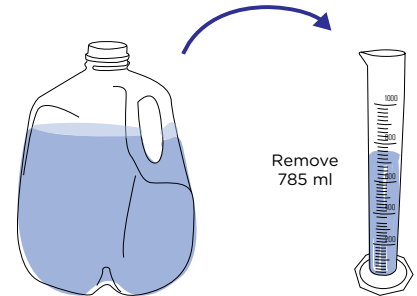
**Note: This method works well when using a store-bought, gallon jug of distilled water.**



Prepare ahead of time. Dissolving TBE powder takes 10-15 minutes.

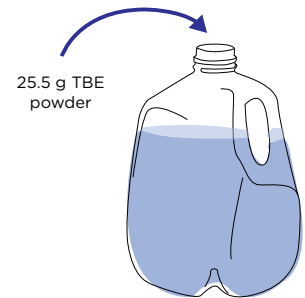
## A. Prepare 3 L of distilled water

- If starting with a one-gallon jug of water, remove 785 ml. This will leave three liters remaining.
- It is ok if this volume is approximate, small variations in concentration will not affect performance.



## B. Add TBE powder to the distilled water

- Combine the entire container of TBE powder (25.5 g) and the water.
- If using a one-gallon jug, simply add the TBE powder directly to the jug.



## C. Mix solution for 10-15 minutes

- Stir or intermittently shake solution for 10-15 minutes.
- It is normal for some powder to remain undissolved after 15 minutes. Small amounts of undissolved powder will not affect performance.



## D. Store at room temperature in a closed container

- If storing in the original jug, be sure to clearly relabel the container as "1X TBE" and add relevant safety precautions.
- 1X TBE buffer stored in an airtight container can be stored at room temperature for at least three months.
- You can continue to use the TBE unless the buffer becomes cloudy. If this occurs, discard the TBE.



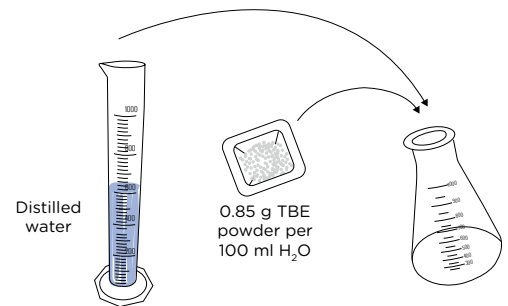
# How to prepare variable volumes of 1X TBE buffer using TBE powder



Prepare ahead of time. Dissolving TBE powder takes 15-20 minutes per liter.

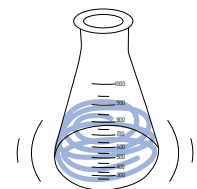
## A. Mix 0.85 g of TBE powder per every 100 ml of water

- Determine the volume of 1X TBE buffer you would like to make.
- Obtain a heat resistant container such as a glass Erlenmeyer flask or beaker.
- Add 0.85 g of TBE powder per 100 ml of water you plan to use.
- Add measured volume of distilled or deionized water.
- If using the entire 25.5 g container of TBE powder, mix with 3 L of water.
- Optional: Pre-warming the water will make the TBE powder dissolve faster.



## B. Mix solution

- Stir or intermittently shake solution until fully dissolved.
- Warm the solution as necessary to help dissolve the powder.
- It is normal for a small amount of powder to remain undissolved after 15 minutes. Small amounts of undissolved powder will not affect performance.



10-15 minutes

## C. Store at room temperature in a closed container

- 1X TBE buffer stored in an airtight container can be stored at room temperature for at least three months.
- You can continue to use the TBE unless the buffer becomes cloudy. If this occurs, discard the TBE.

