5X TAPS-PEG 8000 Buffer for Tn5 Tagmentation:
50 mM TAPS-NaOH at pH 8.5
25 mM MgCl2
40% PEG 8000

Notes:
Dissolving the PEG 8000 in may take several hours. It is recommended to allow this to happen overnight at room temperature on a stir plate. Shaking is likely insufficient to fully dissolve the PEG 8000.
The TAPS concentration has been reduced from 1.04 M to 50 mM. If planning to use the original concentration, add an additional 24.064 g TAPS to the TAPS-$MgCl_2$ buffer (25.28 g Total).

Reagents:

Chemical	Concentration	CAS	URL
TAPS	243.28 g/mol	29915-38-6	https://us.vwr.com/store/catalog/static_catalog.jsp?catalog_number=97064-208
MgCl2	1M	7791-18-6	https://www.gbiosciences.com/Buffers-Reagents-Chemicals/Molecular-Biology-Related-Buffers-Chemicals/Magnesium-Chloride-1M
NaOH	10N	1310-73-2,7732-18-5	https://www.fishersci.com/shop/products/sodium-hydroxide-solution-10n-certified-fisher-chemical-3/SS2551
PEG 8000	7000 to 9000	25322-68-3	https://www.fishersci.com/shop/products/polyethylene-glycol-8000-peg-fisher-bioreagents-2/BP233100

Protocol:

To a 200 ml autoclaved beaker:

- Makes 50 mls TAPS-$MgCl_2$ buffer.

1. Add an autoclaved stir-bar.
2. Add 1.2164 g TAPS.
3. Add 30 mls Ultra-Pure H_20.
4. Add 2.5 mls 1M $MgCl_2$.
5. Stir until TAPS is fully dissolved.
6. Adjust to pH 8.5 with 10N NaOH.
7. Transfer to 50 ml Falcon and adjust final volume of TAPS-$MgCl_2$ buffer to 50 mls with Ultra-Pure H_20.

Filter sterilize using .22 um filter (Optional, recommended if pH probe contamination is a concern).

To a 200 ml autoclaved beaker:

- Makes 100 mls 5X TAPS-PEG 8000 using TAPS-$MgCl_2$ buffer made above.

1. Add an autoclaved stir-bar.
2. Add 40 grams PEG 8000.
3. Add 50 mls of TAPS- $MgCl_2$ solution to 50ml falcon.
4. Add 10 mls Ultra-Pure H_20
5. Cover and stir until solution is clear and homogeneous. (May take Overnight)
6. Transfer to falcon tubes.