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2M POTASSIUM HYDROXIDE SOLUTION

Equipment

- 2000mL Erlenmeyer Flask
- 1000mL Volumetric Flask
- 🗾 Stir Plate
- 🗾 1 ½" Stir Bar
- Plastic Bucket / Tub
- 🗾 Funnel
- DI Water Squirt Bottle
- Balance that can weigh grams (with at least 2 decimal places)

Reagents

- Potassium Hydroxide Pellets
- 🗾 DI Water

Procedure

- Place 2000mL Erlenmeyer Flask in plastic bucket / tub on top of stir plate
- Add cold tap water to the bucket (not in the flask) up to approximately 800mL mark
- Place Stir bar in flask
- Measure approximately 800mL of DI water and add it to the flask
- Weigh out 112.22 grams of potassium hydroxide pellets and add it to the flask. Be careful, this is an exothermic reaction that will heat up the water (This is the reason for the cold tap water in the bucket to cool down the solution).
- Turn on stir plate and mix well until pellets are completely dissolved.
- Bring the solution to temp: 20°C (68°F)
- Using a funnel, transfer the solution to 1000mL volumetric flask being careful not to spill the solution during transfer.
- Use a DI squirt bottle to rinse the inside of the Erlenmeyer Flask to remove any possible residue on inside of flask and swirl water rinse (not more than 200mL)
- Using the funnel transfer the rinse water to volumetric flask being sure not to exceed the 1000mL line.
- Using a DI squirt bottle bring the rest of the volume up to the 1000mL mark on volumetric flask

The indications supplied are based on our current knowledge and experience, but do not relieve the user from adopting the necessary safety precautions or from the responsibility of using the product(s) properly.





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- Using the funnel transfer the 2M KOH solution to a 1 liter Nalgene bottle and close tightly
- Label and date the solution
- Shelf Life = 1 year

Calculations (for 1000 mL)

The Molar Mass of KOH = 56.11 mol/gr/L (K (39.10) + O (16.00) + H (1.01)

For 2 Molar we double the Molar weight in grams and keep the volume of water the same. This is where the 112.22 grams of KOH pellets comes from

Notes

The Vintessential gluconic acid enzymatic analysis requires a pH adjustment step of the sample. The pH of the sample needs to be adjusted between 10 - 11 and incubated. After the incubation time the pH needs to be adjusted again down to 7.5 - 8 with 1M Hydrochloric Acid (same as 1N).



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