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0.1 N Lithium Methoxide in Toluene VS

CH₃OLi, 37.97
3.798 g in 1000 mL

Dissolve 700 mg of freshly cut [lithium](#) metal in 150 mL of [methanol](#), cooling the flask during addition of the metal. When reaction is complete, add 850 mL of [toluene](#). If cloudiness or precipitation occurs, add sufficient [methanol](#) to clarify the solution. Store preferably in the reservoir of an automatic delivery buret suitably protected from carbon dioxide and moisture.

Standardization: Accurately weigh about 400 mg of primary standard [benzoic acid](#), and dissolve in 80 mL of [dimethylformamide](#) in a flask. Add 3 drops of a 1-in-100 solution of [thymol blue](#) in [dimethylformamide](#), and titrate with the lithium methoxide solution to a blue endpoint. Correct for the volume of the lithium methoxide solution consumed by 80 mL of the [dimethylformamide](#). Each 12.21 mg of benzoic acid is equivalent to 1 mL of 0.1 N lithium methoxide.

[NOTE—Restandardize the solution frequently.]

$$N = \frac{\text{mg benzoic acid}}{122.12 \times \text{mL lithium methoxide (corrected for the blank)}}$$

[NOTE—If this volumetric solution is used in a qualitative application such as pH adjustment, dissolution medium, or diluent, its standardization is not required.]

Auxiliary Information - Please [check for your question in the FAQs](#) before contacting USP.

Topic/Question	Contact	Expert Committee
0.1 N LITHIUM METHOXIDE IN TOLUENE VS	Margareth R.C. Marques Principal Scientific Liaison	HDQ Headquarters

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