Status: Currently Official on 15-Feb-2025
Official Date: Official as of 01-May-2017
Document Type: Reagents
DocId: GUID-BBBBA7EE-6617-45EA-9F26-C3343D770E57_2_en-US
DOI: https://doi.org/10.31003/USPNF_R3378_02_01
DOI Ref: e3ux2



# 0.1 N Lithium Methoxide in Chlorobenzene VS

$CH_3OLi$, 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 the reaction is complete, add 850 mL of chlorobenzene. 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 CHLOROBENZENE VS | Margareth R.C. Marques<br>Principal Scientific Liaison | HDQ Headquarters |

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Pharmacopeial Forum: Volume No. PF 41(6)

**Current DocID: GUID-BBBBA7EE-6617-45EA-9F26-C3343D770E57_2_en-US**
**Previous DocID: GUID-BBBBA7EE-6617-45EA-9F26-C3343D770E57_1_en-US**
**DOI: https://doi.org/10.31003/USPNF_R3378_02_01**
**DOI ref: e3ux2**