



Lithium Methoxide, 10% in Methanol

CAS No. 865-34-9

QS-PDS-014 Revision: 05

Date of Last Revision: July 7, 2022

**Formula:** Li-OCH<sub>3</sub>

**Appearance:** Colorless to pale yellow solution

**Application:** LiOMe is a mild base used mainly in organic synthesis, most often in transesterifications. This reagent is offered currently in methanol solution of LiOMe (2.2M) and therefore is very easy to transfer from shipping container to storage or reactor. On contact with moisture, it is converted to methanol and lithium hydroxide causing the solution to become cloudy. For leading references, consult *J. Mater. Res.* **1999**, *14*, 1510.

**Product Specifications:** Lithium Methoxide, wt. % 9.8 min 10.2 max

*\* This product can be made to agreed upon customer specifications.*

**Other Data:** Solvent Methanol

|                             |                  |                      |
|-----------------------------|------------------|----------------------|
| <b>Physical Properties:</b> | Molecular Weight | 37.97                |
|                             | Contained LiOMe  | 85 g/L (0.71 lb/gal) |
|                             | Pyrophoricity    | Non-pyrophoric       |
|                             | Density @ 20°C   | 0.83 g/mL            |

**Solubility:** Methanol is the best solvent for LiOMe as it has very low solubility in many common solvents including THF (tetrahydrofuran).

**Thermal Stability:** LiOMe in methanol is very stable at room temperature. At 40°C, solutions could very slowly become hazy because of desolvation of the LiOMe.

**Toxicity / Safety Data / Handling / Storage / Disposal:** *Information on toxicity, safety, handling, storage and disposal is contained in the Safety Data Sheet (SDS) for this product.*



|                             |                 |                   |
|-----------------------------|-----------------|-------------------|
| <b>Shipping Containers:</b> | Bulk Containers | 17,500 – 24,000 L |
|                             | Cylinders       | #20 – 420 L       |
|                             | Drums           | 55 gallon         |
|                             | Glass Bottles   | 125 mL, 500 mL    |

**Shipping Limitations:** Shipments of LiMeO are described as “UN3274, ALCOHOLATES, SOLUTION, N.O.S. (LITHIUM METHOXIDE IN METHANOL), 3, (8), PGII”. Shipments require “Flammable Liquid” and “Corrosive” Labels.

|                  |   |
|------------------|---|
| Post, Parcel     | Not acceptable  |
| Sea              | Class 3 (8) (IMDG)  |
| Road, Rail (USA) | Class 3 (8) (DOT)   |
| Road, Rail (EU)  | Class 3 (8) (RID/ADR)   |
| Air              | Class 3 (8) (IATA)<br>2.5 L maximum per inner glass container.<br>5.0 L maximum per single/outer container.<br>Cargo aircraft only. |