

## LITHIUM METHOXIDE (LIOMe) 10% IN METHANOL

CAS No. 865-34-9

QS-PDS-014 Revision: 02

Product Names	Lithium methoxide, LiOMe, LME		
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 <i>J. Mater. Res.</i> <b>1999</b> , <i>14</i> , 1510.		
Product Specification	Lithium methoxide, wt %	<u>Guaranteed*</u> 9.8 – 10.2	
	*This product can be made to agreed upon customer specifications.		
Physical Properties	Molecular weight Density @20°C Contained LiOMe Pyrophoricity	37.97 0.85 g/cm <sup>3</sup> at 10 wt % 85 g/L (0.71 lb/gal) Non-pyrophoric	
Solvent	Methanol		
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.		



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Toxicity/Safety Data	Danger. Highly flammable liquid and vapour. Causes severe skin burns and eye damage. Toxic if swallowed, in contact with skin or if inhaled. Causes damage to organs. Keep away from heat/sparks/open flames/hot surfaces. No smoking. Wear protective gloves/protective clothing/eye protection/ face protection. IF SWALLOWED: Rinse mouth. Do NOT induce vomiting. IF ON SKIN (or hair): Remove / Take off immediately all contaminated clothing. Rinse skin with water / shower. If INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Immediately call a POISON Center or doctor/physician. In case of fire: Use dry chemical for extinction.	
		TOXICITY AND SAFETY IS CONTAINED IN T (SDS) AVAILABLE FOR THIS PRODUCT.
Handling/Storage/Disposal	Use in a closed system under argon or nitrogen. Do not get in eyes, on skin or clothing. Do not breathe vapors or mist. Store in a cool place. Keep container closed. Keep away from sources of ignition, water, air, acids and oxidizing agents.	
Shipping Containers	Bulk containers Cylinders Drums Glass bottles	17,500 – 24,000 L #20 55 gallon 125 mL, 500 mL, and 1 L
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 Sea Road, Rail (USA) Road, Rail (EU) Air	Not acceptable Class 3 (8) (IMDG) Class 3 (8) (DOT) Class 3 (8) (RID/ADR) Class 3 (8) (IATA) 2.5 L maximum per inner glass container. 5.0 L maximum per single/outer container. Cargo aircraft only.
	Responsible Care® initiative dictates that all shipments of lithium cher must be transported in a DOT-approved vehicle in a responsible man no flat bed trucks).	
Additional Resources	Refer to Safe Handling Guide listed on www.fmclithium.com/finechemicals.	

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