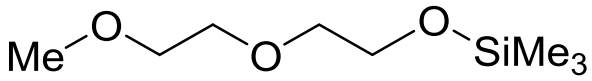
Catalog #D281787 2,2-Dimethyl-3,6,9-trioxa-2-siladecane, 99+% Electrolyte solvent ANL-1NM2



Organosilicon Electrolytes for Lithium Ion Batteries

1. Silicon based electrolytes with polyethylene glycol oligomers improve thermal and electrochemical stability of lithium-ion batteries
2. Increases battery long-term stability
3. Are less flammable than conventional organic carbonate-based solvents and maintain the safe operation of batteries
4. Improves conductivity and kinetics of the lithium salts;

Electrochemical and Physical Properties:

1. **Viscosity** 0.9 cP at 25°C; **Conductivity**: 1.2 x 10^{-3} S cm^{-1} at 25°C (1.0 M LiTFSI); **Boiling point** 190-191°C; **Glass transition temperature** -129°C [1-3].
2. Soluble electrolytic lithium salt LiTFSI; Less soluble LiBOB.
3. Silylated electrolytes show much better electrochemical stability than its carbon and germanium analogues [3].
4. Compares well with other trimethylsilylated polyethyleneoxide oligomers, with longer chain lengths (see also ANL-1NM3; product # 14-1930). Ethylene oxide units in certain electrolytic blends are advantageous improving the conductivity and kinetics of the lithium salts [3-4].

References:

1. *Electrochem. Commun*., **2006,** *8*, 429.
2. *J. Phys. Chem. C*, **2008**, *112*, 2210.
3. *J. Mater. Chem*., **2008**, *18,* 3713.
4. *J. Power Sources*, **2014**, *272,* 190.