

Appendix A. USABC Liquid Electrolyte Performance Targets

USABC Goals for Liquid Electrolytes for Cells to be Used in Automotive Traction Applications

Parameter		Unit	USABC Goal
Electrochemical Stability (100 $\mu\text{A}/\text{cm}^2$ threshold)	Upper	V vs.	5
	Lower	Li/Li+	0
Specific Conductivity	30°C	mS/cm	> 12
	-30°C		> 4
Lithium Transference Number			> 0.35
Viscosity	30°C	cP	5
	-30°C		20
Impurities	H ₂ O	ppm	< 20
	HF		< 50
Purity of Each Component		%	≥ 99.99
Vapor Pressure (25°C)		mm Hg	< 1
Flashpoint		°C	> 100
Lithium Salt Solubility		M	1
Cost (20 kT/Yr)		\$/kg	< 10