

sec-Butyllithium, 12% in Cyclohexane

CAS No. 598-30-1

QS-PDS-037 Revision: 04

Date of Last Revision: June 12, 2024

Formula:	CH ₃ CH ₂ CH ₂ CH ₂ -Li			
Appearance:	Clear to yellow solution			
Application:	sec-Butyllithium is a very strong base, exceedingly useful in organic synthesis. SBL has found particular utility in the ortho metallation of aromatic substrates. SBL is also a very effective initiator of anionic polymerization of styrene and conjugated dienes. The synthesis of solution SBR and of styrenic thermoplastic elastomers (TPEs), in particular, is facilitated by SBL. References: The Chemistry of Organolithium Compounds, ed. Zvi Rappoport and Ilan Marek, Wiley, 2004, West Sussex, England.			
Product Specifications:	<i>sec</i> -Butyllithium, wt. Carbon Bound Lithin Free Alkalinity, wt.%	um, wt. %	12.00 min 95 0.6	12.25 max min max
	*This product can be made to agreed upon customer specifications.			
Other Data:	Solvent Cyclohexane (contains <10% hexanes or heptane in inhibit freezing)			
Physical Properties:	Molecular Weight Contained Butyllithium Pyrophoricity Density @ 20°C		64.06 93.6 g/L (.78 lb/gal) Pyrophoric 0.78 g/mL (6.51 lb/gal)	
Solubility:	<i>sec</i> -Butyllithium is miscible in all proportions with aliphatic, aromatic, and ethereal solvents; however, there is some reactivity with the latter two solvent types.			
Thermal Stability:	At 20°C and 35°C, the average decomposition rates are 0.0015 wt. % per day and 0.055 wt. % per day, respectively. Recommended storage: 15°C or lower and preferably at less than 0°C.			
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.			
Shipping Containers:	Bulk Containers Cylinders Glass Bottles	2,000 – 20,000 L (35,000 also available in EU only) #20 – 420 L 125 mL, 500 mL, 1 L		



Shipping Limitations: Shipments of SBL are described as "ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (S-BUTYLLITHIUM, HYDROCARBON SOLUTION), 4.2 (4.3), UN 3394, PG I". Shipments require "Spontaneously Combustible" and "Dangerous When Wet" labels.

Post, Parcel, Air	Not acceptable	
Sea	Class 4.2 (4.3)	(IMDG)
Road, Rail (USA)	Class 4.2 (4.3)	(DOT)
Road, Rail (EU)	Class 4.2 (4.3)	(RID/ADR)

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