arcadium lithium

_n_-Butyllithium, 20% in Toluene **CAS No. 109-72-8**

QS-PDS-040 Revision: 04 **Date of Last Revision: June 12, 2024**

Formula: $CH_3CH_2CH_2CH_2$-Li

Appearance: Clear, yellow to red solution

Application: Deprotonation and metal–halogen exchange reactions; synthesis of solution styrene butadiene rubber and of styrenic thermoplastic elastomers. Also used for synthesis of chemical intermediates.

Product Specifications:

_n_-Butyllithium, wt. %	19.5 min	20.5 max
Carbon Bound Lithium, wt. %	97	min
Free Alkalinity, wt. %	0.5	max

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

Other Data:

Solvent	Toluene

Physical Properties:

Molecular Weight	64.06
Contained Butyllithium	170 g/L (1.42 lb/gal)
Pyrophoricity	Pyrophoric
Density @ 20°C	0.85 g/mL (7.14 lb/gal)

Solubility: _n_-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 0.002 wt. % per day and 0.023 wt. % per day, respectively. Recommended storage: 20°C or lower and preferably at 10°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	2,000 – 22,000 L (35,000 also available in EU only)
Cylinders	#20 – 440 L
Glass Bottles	125 mL, 500 mL, 1L

Shipping Limitations: Shipments of NBL are described as "ORGANOMETALLIC SUBSTANCE, LIQUID, PYROPHORIC, WATER-REACTIVE (N-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)