arcadium lithium

**_n_-Butyllithium in Hexane (Minimum 85% Active Solution)** **CAS No. 109-72-8**

**QS-PDS-036 Revision: 04** **Date of Last Revision: June 12, 2024**

**Formula:** $CH_3CH_2CH_2CH_2$-Li

**Appearance:** Light yellow to dark amber, clear to cloudy.

**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. % | 85.0 | min |
| Carbon Bound Lithium, wt. % | 97 | min |

*_This product can be made to agreed upon customer specifications._

**Other Data:**

| | |
|---|---|
| Solvent | Hexane |

**Physical Properties:**

| | |
|---|---|
| Molecular Weight | 64.06 |
| Contained Butyllithium | 646 g/L (5.39 lb/gal) |
| Pyrophoricity | Pyrophoric |
| Density @ 20°C | 0.76 g/mL (6.34 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 25°C and 35°C, the average decomposition rates were 0.011 and 0.102 wt. % per day, respectively. Recommended storage: 10°C or lower and preferably at 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 | 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) |