

QS-PDS-2021 Revision: 02

<b>Chemical Formula</b>	Li		
<b>Appearance</b>	Metallic silver in color		
<b>Product Specifications</b>	Li	99.8 wt % min	
	Na	60 wppm max	
	Ca	60 wppm max	
	K	60 wppm max	
	Fe	100 wppm max	
	Si	100 wppm max	
	Cl	60 wppm max	
	N	800 wppm max	
<b>Standard Product</b>	<u>Form</u>	<u>Weight</u>	<u>Diameter (inch)</u>
	Ingot	10 lb	6
			<u>Length (inch)</u>
			20
	Custom products and packaging can be developed based upon mutually agreed specifications.		
<b>Shipping Containers</b>	High purity alloy grade metal is dry packed under argon in hermetically-sealed aluminized polyester foil pouches. A variety of approved boxes or steel drums are used to accommodate the product and quantity ordered. Standard packaging is permissible for truck or ocean shipment.		
<b>Shelf Life</b>	The quality of high purity alloy grade lithium metal in the original unopened and undamaged packaging is guaranteed for six months from date of manufacture.		
<b>Physical Properties</b>	Atomic weight	6.94	
	Density	0.534 g/cm <sup>3</sup>	
	Melting Point	180.5°C	
	Boiling Point	1317°C	
	Hardness (Mohs)	0.6	
	Electrical resistivity @ 20°C	9.35 x 10 <sup>-6</sup> ohm-cm	
	Thermal conductivity, 0-100°C	0.17 cal/cm/°C/sec	
	Linear coefficient of thermal expansion @25°C	51 x 10 <sup>-6</sup>	
	Volume increase on melting	1.51%	
	Isotopic composition (natural)	Li <sup>7</sup> 92.6 atomic percent	
		Li <sup>6</sup> 7.4 atomic percent	



**Toxicity/Safety Data** Flammable solid. Water reactive. Reacts violently with water to give off corrosive dust and flammable hydrogen gas. Elevated temperatures, above melting point (180.5°C/357°F), can result in spontaneous ignition in humid air. Corrosive to eyes (may cause blindness), skin, nose, throat and stomach.

*COMPLETE INFORMATION ON TOXICITY AND SAFETY IS CONTAINED IN THE SAFETY DATA SHEET (SDS) AVAILABLE FOR THIS PRODUCT.*

**Handling/Storage/Disposal** Can be handled in open atmosphere at room temperature, either coated with mineral oil or where relative humidity is maintained below 50%. To maintain best quality, humidity levels of less than 2% are recommended. Wear safety glasses or goggles and dry rubber gloves. Store in original unopened shipping container. Once opened, store in argon atmosphere or mineral oil. Keep away from water, humid air, acids and oxidizing materials. Keep away from heat, sparks and flame.

**Shipping Limitations** Shipments of lithium metal are described as "Lithium, UN 1415," PG I. All shipments are Hazard Class 4.3 and require "Dangerous When Wet" labels.

Post, Parcel	Not acceptable	
Sea	Class 4.3	(IMDG)
Road, Rail	Class 4.3.11 a	(RID/ADR)
Air	15kg max.	Cargo aircraft only

Responsible Care® initiative dictates that all shipments of lithium chemicals must be transported in an approved vehicle in a responsible manner (i.e., no flat bed trucks).