

## LPSCI (Li<sub>6</sub>PS<sub>5</sub>Cl)

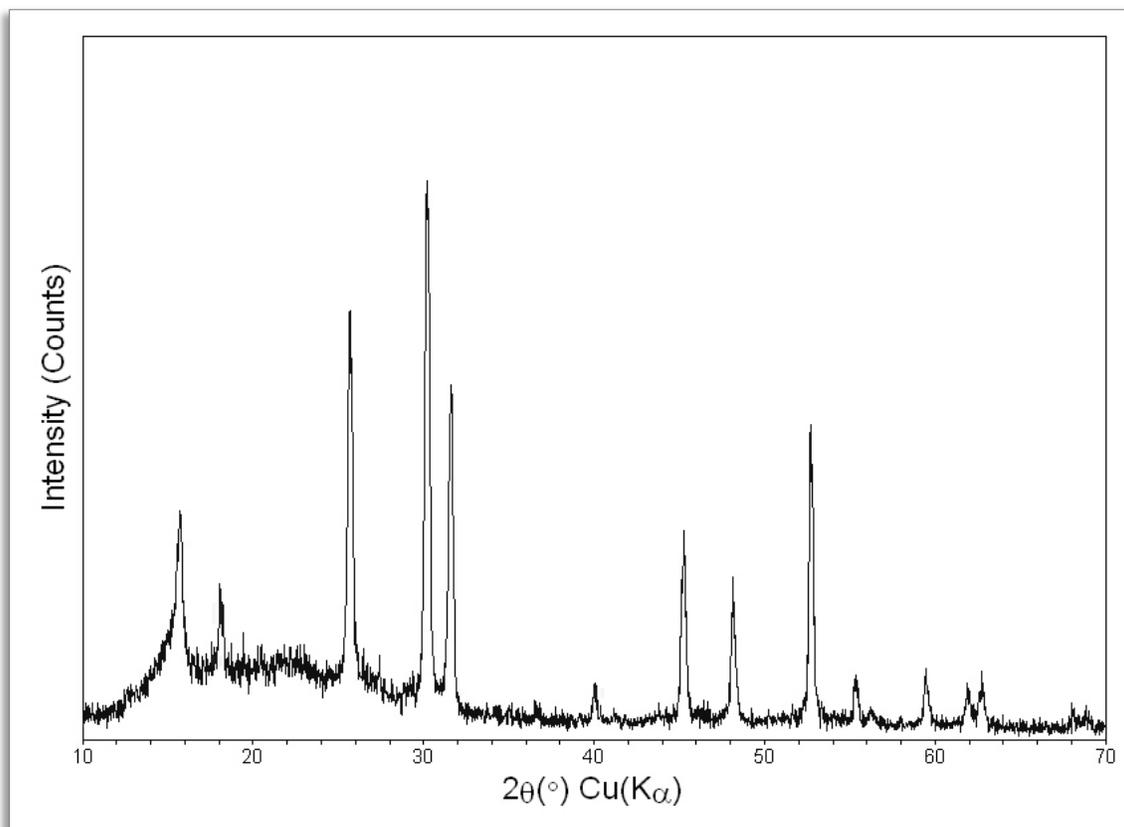
### Physical Characteristics

<b>Product Name / Description:</b>	"LPSCI" - Lithium Phosphorus Sulfide Chloride
<b>Chemical Formula:</b>	Li <sub>6</sub> PS <sub>5</sub> Cl
<b>CAS #:</b>	1015037-41-8
<b>Color:</b>	Light brown, Beige
<b>Phase Purity:</b>	≥ 95%
<b>Molecular Weight</b>	268.402 g/mole
<b>Crystal Structure:</b>	Argyrodite
<b>Crystal Density:</b>	1.64 g/cm <sup>3</sup>
<b>Particle Size (D50):</b>	N/A (material is highly reactive/air-sensitive; standard laser diffraction is incompatible).
<b>Ionic Conductivity:</b>	1 – 2 x 10 <sup>-3</sup> S/cm (unsintered, cold-pressed pellet @ RT) <i>*Sintered material will have higher ionic conductivity</i>

### Operating Conditions

<b>Stability Voltage Window:</b>	~ 5.0V vs. Li/Li+
<b>Sensitivity to Air or Moisture:</b>	Highly Sensitive
<b>Working Atmosphere:</b>	Inert Atmosphere (Ar/He)

### Characterization Data



X-ray Diffraction (XRD)

## LPSCI (Li<sub>6</sub>PS<sub>5</sub>Cl)

### Available Quantities

---

LPSCI is available for purchase in quantities of 10g, 25g, 50g, 100g, 250g, 500g, and 1kg.

*Large and bulk quantities are available upon request.*

### Storage & Handling

---

#### Precautions for Safe Handling

**Handle in a controlled environment, under inert gas. Never allow product to come in contact with moisture or water.**

Appropriate personal protective equipment should be used at all times. Avoid contact with eyes and skin. Provide good ventilation or extraction and avoid breathing vapors.

#### Conditions for Safe Storage

Store under inert gas in a cool, dry, and well-ventilated place. Keep container tightly sealed and protect from moisture. Never allow product to get in contact with water during storage.

**Refer to SDS for complete information on the safe handling of this material.**

**Disclaimer:** NEI Corporation believes the information provided in this document is accurate and represents typical product characteristics. However, NEI makes no warranties, express or implied, regarding the accuracy of this information or the suitability of the product for any specific application. Given the highly reactive and moisture-sensitive nature of this material, it is the user's sole responsibility to independently evaluate the product's safety, performance, and compatibility within their specific process environment. NEI disclaims all liability for incidental, consequential, or indirect damages resulting from the handling, storage, or use of this product. Users should rely on their own internal safety assessments and established protocols to ensure the health and safety of their personnel. Nothing contained herein shall be construed as a recommendation to infringe any patent or intellectual property right.