# Physical Characteristics

**Product Description:** Lithium Aluminum Titanium Phosphate ("LATP")

**Chemical Formula:** \( \text{Li}_1.4\text{Al}_{0.4}\text{Ti}_{1.6}(\text{PO}_4)_3 \)

**Color:** White

**Phase Purity:** > 95%

**Average Particle Size (D50):** ~ 1 µm

**Crystal Structure:** Hexagonal

**Crystal Density:** 2.92 g/cm\(^3\)

**Specific Surface Area:** 4.45 m\(^2\)/g

**Ionic Conductivity:** \(10^{-5}\) to \(10^{-4}\) S/cm (unsintered, cold-pressed pellet @ RT)

*Sintered material will have higher ionic conductivity*

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**Operating Conditions**

**Stability Voltage Window:** ~ 5.0V vs. Li/Li+

**Sensitivity to Air or Moisture:** Stable, but limit exposure to air/CO\(_2\)

**Recommended Working Atmosphere:** Air

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**Characterization Data**

*X-ray Diffraction (XRD)*

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**issued:** 24-March-2022 (v1.0)
Characterization Data (continued)

Particle Size Distribution

Ionic Conductivity

Storage & Handling

Precautions for Safe Handling
Avoid formation of dust and aerosols. Provide appropriate exhaust ventilation at places where dust is formed. Appropriate personal protective equipment should be used at all times.

Conditions for Safe Storage
Keep container tightly closed in a dry, well-ventilated place. Store away from strong acids.

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

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