

Li<sub>2</sub>O / K<sub>2</sub>O / SiO<sub>2</sub>**LITHIUM POTASSIUM SILICATE (LPS)39**

Polysilicate

Chemical Formula: Li<sub>2</sub>O / K<sub>2</sub>O / SiO<sub>2</sub>

CAS#. 12627-14-4

**PRODUCT DESCRIPTION:**

LITHIUM POTASSIUM SILICATE (LPS)39 is an aqueous polysilicate hybrid solution with a molar ratio of 3.9 (ranging 3.8-4.0). The unique composition helps improve interaction and compounding characteristics when formulating coatings, sealers and specialty treatments. The reactive silicate forms a stable, high ratio, low viscosity solution that results in lower levels of water in coatings and can dramatically improve film formation, water resistance, abrasion, hardness and bonding properties for many applications, including concrete surface treatments, specialty paints and coatings. Once dried this material is relatively insoluble compared to potassium and sodium silicates. Especially suitable for high performance zinc coatings for marine and industrial applications in which high pigment loading and water and wear resistance or increased bonding, abrasion and scratch resistance are desired.

**APPLICATIONS**

Raw material used as a binder and catalyst for:

Inorganic paints, coatings and primers

Anti-corrosive coatings

Powder coatings

Refractories

Catalysts

Concrete admixture

Concrete surface treatments

Welding rod binder additive

Flame retardant

Ceramics, glazes and enamels

**Features**

- High lithium concentration
- Improves interaction and compounding
- Offers better, more stable reactions
- Enhances durability and performance

**Uses**

- Inorganic paint, coatings and primers  
Anti-corrosive coatings
- Refractories Catalysts
- Concrete admixture Concrete surface treatments  
Welding rod binder additive  
Flame retardant
- Ceramics, glazes and enamels

**Product type**

- Silicates

**Product Specifications**

**APPEARANCE**

Clear colorless liquid, water-based solution

| Physical Properties    | Composition    |
|------------------------|----------------|
| Specific gravity@ 25°C | 1.26 - 1.27    |
| Total Solids           | 29.00 - 30.12% |

**CHEMICAL CONSTITUENTS**

|                                |                           |
|--------------------------------|---------------------------|
| K2O (% wt.):                   | 8.0 - 8.50                |
| Li2O (% wt.):                  | 1.0 - 1.02                |
| SiO2 (% wt.):                  | 20.0 - 20.60              |
| Weight Ratio:                  | 2.40 - 2.60               |
| Molar Ratio:                   | 3.80 - 4.0                |
| pH:                            | 11.6 - 11.8               |
| Specific Gravity:              | 1.26 - 1.27               |
| Density (0Baume (~1260 kg/m3): | 30.00                     |
| Viscosity (centipoise):        | 33 - 35                   |
| Flash Point                    | N/A                       |
| VOC                            | < than 50 grams per liter |
| Freeze Point                   | 33°F / 0°C                |
| Shelf Life                     | 12 Months                 |

**PACKAGING / SHIPPING CONTAINERS**

Product is packaged and shipped in 55 gallon polyethylene drums, 275 gallon IBC totes or Bulk ISO / Tankers.

**Toxicity/Safety Data Handling / Storage / Disposal:**

For safety and handling information, consult the product Safety Data Sheet.

Product should be stored in cool, dry conditions away from direct sunlight. Providing the product is kept in the original packaging, the shelf life is 12 months.

Ensure to use PPG during transport/handling and usage. Information on toxicity, safety, handling, storage and disposal is contained in the Safety Data Sheet (SDS) for this product.

ORDERS and  
TECHNICAL SUPPORT

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## LIMITATIONS

This product is neither tested nor represented as suitable for medical or pharmaceutical uses. Not intended for human injection. Not intended for food use.

## DOCUMENTATION

A Certificate of Analysis and Safety Data Sheet (SDS) in accordance with EN 10204 are supplied with every shipment.

## LIMITED WARRANTY INFORMATION.

### PLEASE READ CAREFULLY.

Lithium Salts of America (a Division of ASG Chemical Holdings, LLC. ASG CHEMIE) believes the information in this document to be accurate as at the date of preparation noted below, but, to the maximum extent permitted by law, Lithium Salts of America accepts no responsibility for any loss or damage caused by any person acting or refraining from action because of this information. The provision of this information should not be construed by anyone as a recommendation to use this product. No one should use any product in violation of any patent or other intellectual proprietary rights or in breach of any statute or regulation. Users should rely on their own knowledge and inquiries and make their own determination as to the applicability of this information in relation to their particular purposes and specific circumstances. Each user should read this SDS and consider the information in the context of how the product will be handled and used in the workplace and in conjunction with other substances or products.

For more information or answers to questions about the use in specific applications, contact your Technical Sales Representative or call Toll Free 1.833.LITHUSA (1-833-548-4872).

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