

LITHIUM ALUMINUM GERMANIUM PHOSPHATE
SAFETY DATA SHEET

DATE OF LAST REVISION: 12/07/17

Section 1: Identification

Product Name: Lithium Aluminum Germanium Phosphate

CAS Number: N/A / **EC Number:** N/A

Company: Angstrom Sciences, Inc.
40 South Linden Street
Duquesne, PA 15110

For more information call: 412-469-8466

(Monday - Friday 9:00 AM -5:00 PM EST)

Section 2: HAZARD IDENTIFICATION

Signal Word: Warning



Hazard Statements:

H302: Harmful if swallowed

H315: Causes skin irritation

H319: Causes serious eye irritation

H335: May cause respiratory irritation

Precautionary Statements:

P261: Avoid breathing dust/fume/gas/mist/vapors/spray

P264: Wash thoroughly after handling

P270: Do not eat, drink or smoke when using this product

P280: Wear protective gloves/protective clothing/eye protection/face protection

P301 + P310: IF SWALLOWED: Immediately call a POISON CENTER or doctor/physician

P304 + P340: IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing.

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing.

LITHIUM ALUMINUM GERMANIUM PHOSPHATE
SAFETY DATA SHEET

P332 + P313: If skin irritation occurs: Get medical advice/attention
P337 + P313: If eye irritation persists. Get medical advice/attention
P362: Take off contaminated clothing and wash before use
P403 + P233: Store in a well-ventilated place. Keep container tightly closed
P405: Store locked up
P501: Dispose of contents/container in accordance with local/regional/
national/international regulations

HMIS Health Ratings (0-4):

Health:	2
Flammability:	1
Physical:	1

Section 3: Composition/Information on Ingredients

Chemical characterization: Ceramic

Additional Names: N/A

CAS# Description: N/A

Percentage: 100 wt%

EC number: N/A

Section 4: FIRST AID MEASURES

General Treatment: Seek medical attention if symptoms persist.

Special Treatment: None

Important Symptoms: None

Eye Contact: Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing.

Skin Contact: Wash affected area with mild soap and water. Remove any contaminated clothing.

Inhalation: Remove to fresh air. Supply oxygen if breathing is difficult. Keep victim warm. Seek medical attention

Ingestion: Seek Medical Attention Immediately

Section 5: FIRE FIGHTING MEASURES

Suitable extinguishing Media: Do not use water for metal fires - use CO₂, sand, extinguishing powder

Flammability: Non-flammable, except as powder

Special Fire Fighting Procedure: Use full-face, self contained breathing apparatus with full protective clothing to prevent contact with skin and eyes. See section 10 for decomposition products.

Section 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions: Wear appropriate respiratory and protective equipment specified in special

LITHIUM ALUMINUM GERMANIUM PHOSPHATE
SAFETY DATA SHEET

protection information. Isolate spill area and provide ventilation. Vacuum up spill using a high efficiency particulate absolute (HEPA) air filter and place in a closed container for disposal. Take care not to raise dust.

Environmental Precautions: Isolate runoff to prevent environmental pollution.

Section 7: HANDLING AND STORAGE

Handling Precautions for safe handling: Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities Store in a cool dry place in a tightly sealed container. Store apart from materials and conditions listed in Section 10.

Work/Hygienic Maintenance: Do not use tobacco or food in work area. Wash thoroughly before eating and smoking. Do not blow dust off clothing or skin with compressed air.

Ventilation: Provide sufficient ventilation to maintain concentration at or below threshold limit.

Section 8: EXPOSURE CONTROL/PERSONAL PROTECTION

Permissible Exposure Limits: 15 mg/m³ as Al, total dust

5 mg/m³ as Al, respirable fraction

Threshold Limit Value: 1 mg/m³ as Al, respirable fraction

Special Equipment: None

Respiratory Protection: Use a respirator with type P100 (USA) or P3 (EN143) cartridges as a backup to engineering controls. Risk assessment should be performed to determine if air-purifying respirators are appropriate. Only use equipment tested and approved under appropriate government standards.

Protective Gloves: Nitrile rubber

Eye Protection: Safety glasses with side shield/NIOSH (US) or EN 166 (EU)

Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

Section 9: PHYSICAL AND CHEMICAL PROPERTIES

Appearance:

Form: Powder, Granules, Pellets, Sputtering target, Custom parts

Color: N/A

Odor: N/A

Water Solubility: N/A

Boiling Point: N/A

Melting Point: N/A

Flash Point: N/A

Autoignition Temperature: N/A

**LITHIUM ALUMINUM GERMANIUM PHOSPHATE
SAFETY DATA SHEET**

Density: N/A
Molecular Weight: N/A

Section 10: STABILITY AND REACTIVITY

Reactivity: Reacts with strong oxidizing agents
Chemical Stability: Stable under recommended storage conditions
Incompatible Conditions: Oxidizing agents, Acids, Bases, Halogens, Halocarbons
Hazardous Decomposition Products: Metal oxide fume, Lithium oxide, Carbon monoxide, Carbon dioxide, Nitrogen oxide, Phosphorous oxides and Ammonia

Section 11: TOXICOLOGICAL INFORMATION

Potential Health Effects:

Eyes: Causes serious irritation

Skin: May cause irritation

Ingestion: Harmful if swallowed

Inhalation: May cause irritation

Chronic: The Reistry of Toxic Effects of Chemical Substances (RTECS) contains multiple dose toxicity data as Li_2CO_3

Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: 525 mg/kg for rat by mouth (as Li_2CO_3)
Carcinogen: N/A

Section 12: ECOLOGICAL INFORMATION

Aquatic Toxicity: N/A

Persistence Bioaccumulation Toxicity: N/A

Very Persistent, Very Bioaccumulative: N/A

Notes: Do not allow undiluted product or large quantities to reach round water, water course or sewage system.

Section 13: DISPOSAL CONSIDERATIONS

Dispose of in accordance with local, state, national, and international regulations

**LITHIUM ALUMINUM GERMANIUMPHOSPHATE
SAFETY DATA SHEET**

Section 14: TRANSPORT INFORMATION

Hazardous: Not hazardous for transportation
Hazard Class: N/A
Packing Group: N/A
UN Number: N/A
Proper Shipping Name: N/A

Section 15: REGULATORY INFORMATION

Sec 302 Extremely Hazardous: No
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: Yes

Section 16: OTHER INFORMATION

This safety data sheet should be used in conjunction with technical sheets. It does not replace them. The information given is based on our knowledge of this product, at the time of publication. It is given in good faith. The attention of the user is drawn to the possible risks incurred by using the product for any other purpose other than that for which it was intended. This does not in any way excuse the user from knowing and applying all the regulations governing his activity. It is the sole responsibility of the user to take all precautions required in handling the product. The aim of the mandatory regulations mentioned is to help the user to fulfill his obligations regarding the use of hazardous products.