

SAFETY DATA SHEET FOR CHEMICAL PRODUCTS

1. Chemical product and company identification

Product name Green Silicate Phosphors
Product code PM1895

Manufacturer/Supplier Address Stanford Advanced Materials
 23661 Birtcher Dr. Lake Forest,
 CA 92630 USA
 Tel: +1 (949) 407-8904

Recommended use and Limitations on use

Recommended use Solid State Lighting Applications.

2. Hazards identification

GHS-classification

Physical hazards Not classified.

Health hazards Skin corrosion/irritation Category 2
 Serious eye damage/eye irritation Category 2A
 Skin sensitizer Category 1
 Specific target organ toxicity - single exposure Category 3 respiratory tract irritation

Environmental hazards Not classified.

GHS-labeling



Symbols

Signal word

Warning

Hazard statement

Causes serious eye irritation. May cause respiratory irritation. Causes skin irritation. May cause an allergic skin reaction.

Precautionary statement

Prevention

Avoid breathing dust. Use only outdoors or in a well-ventilated area. Contaminated work clothing should not be allowed out of the workplace. Wash hands thoroughly after handling. Wear eye/face protection.

Response

IF INHALED: Remove victim to fresh air and keep at rest in a position comfortable for breathing. Call a POISON CENTER or doctor/physician if you feel unwell. IF ON SKIN: Wash with plenty of soap and water. If skin irritation or rash occurs: Get medical advice/attention. Take off contaminated clothing and wash before reuse. IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical advice/attention.

Storage

Store in a well-ventilated place. Keep container tightly closed. Store locked up.

Disposal

Dispose of contents/container in accordance with local/regional/national/international regulations.

3. Composition/information on ingredients

Substance/mixture Substance

	CAS Number	Concentration (%)
Silicate Phosphor	-	100

4. First aid measures

Inhalation

If breathing is difficult, remove to fresh air and keep at rest in a position comfortable for breathing. Oxygen or artificial respiration if needed. Call a physician if symptoms develop or persist.

Skin contact

For skin contact flush with large amounts of water while removing contaminated clothing. If skin rash or an allergic skin reaction develops, get medical attention.

Eye contact	In case of contact, immediately flush eyes with fresh water for at least 15 minutes while holding the eyelids open. Remove contact lenses if worn. Get medical attention if irritation persists.
Ingestion	If material is ingested, immediately contact a poison control center.
Expected acute symptoms and delayed symptoms	May cause an allergic skin reaction.
Personal protection for first-aid responders	Ensure that medical personnel are aware of the material(s) involved, and take precautions to protect themselves.
Notes to physician	Provide general supportive measures and treat symptomatically.

5. Fire-fighting measures

Extinguishing media	Extinguish with water spray, carbon dioxide, dry chemical or material appropriate for the surrounding fire.
Extinguishing media to avoid	None known.
Specific hazards	Material may form irritating and toxic gaseous oxides at high temperatures.
Special fire fighting procedures	Use standard firefighting procedures and consider the hazards of other involved materials.
Protection of fire-fighters	Self-contained breathing apparatus and full protective clothing must be worn in case of fire.

6. Accidental release measures

Personal precautions	Avoid dust formation. Wear appropriate personal protective equipment.
Environmental precautions	Do not allow to enter drains, sewers or watercourses.
Clean-up methods and materials and containment measures	Sweep up or vacuum up spillage and collect in suitable container for disposal. Dispose of waste and residues in accordance with local authority requirements.
Prevention of secondary hazards	Avoid release to the environment.

7. Handling and storage

Handling

Technical measures	No specific recommendations.
Local and general ventilation	Provide appropriate exhaust ventilation at places where dust is formed.
Precautions	Use work methods which minimize dust production.
Safe handling advice	Avoid contact with skin and eyes. Wear suitable protective clothing and gloves. Wash thoroughly after handling. Observe good industrial hygiene practices.

Storage

Technical measures	Guard against dust accumulation of this material.
Suitable storage conditions	Store in a closed container away from incompatible materials.
Incompatible materials	Strong oxidizers, strong acids, and strong bases.
Safe packaging materials	Keep in original container.

8. Exposure controls/personal protection

Exposure limits	
Occupational exposure limits	No exposure limits noted for ingredient(s).
Engineering measures	Use local exhaust ventilation. Facilities storing or utilizing this material should be equipped with an eyewash facility and a safety shower. Use work methods which minimize dust production.
Personal protective equipment	
Respiratory protection	Wear respirator if there is dust formation. In case of inadequate ventilation or risk of inhalation of dust, use suitable respiratory equipment with particle filter.
Hand protection	Wear appropriate chemical resistant gloves.
Eye protection	Wear approved safety glasses or goggles.
Skin and body protection	Wear lab coat or other protective garments. Remove contaminated clothing promptly.
Hygiene measures	Handle in accordance with good industrial hygiene and safety practice.

9. Physical and chemical properties

Appearance

Physical state	Solid.
Form	Powder.
Color	Green.
Odor	Not available.
pH	Not available.
Melting point/freezing point	Not available.
Boiling point, initial boiling point, and boiling range	Not available.
Flash point	Not available.
Auto-ignition temperature	Not available.
Flammability limit - lower (%)	Not available.
Flammability limit - upper (%)	Not available.
Explosive limit	Not available.
Vapor pressure	Not available.
Vapor density	Not available.
Relative density	Not available.
Density	Not available.
Solubility	Soluble in water.
Partition coefficient (n-octanol/water)	Not available.
Decomposition temperature	Not available.
Bulk density	4.73 kg/m ³

10. Stability and reactivity

Stability	Material is stable under normal conditions.
Possibility of hazardous reactions	Polymerization will not occur.
Conditions to avoid	Dust generation. Heat, flames and sparks.
Incompatible materials	Strong oxidizers, strong acids, and strong bases.
Hazardous decomposition products	Thermal decomposition can lead to release of irritating gases and vapors. Metal oxides.

11. Toxicological information

Acute toxicity	May cause discomfort if swallowed.
Routes of exposure	Eyes. Skin. Inhalation.
Symptoms	Ingestion may cause irritation and malaise. May cause an allergic skin reaction.
Skin corrosion/irritation	Causes skin irritation.
Serious eye damage/eye irritation	Causes serious eye irritation.
Respiratory sensitizer	No data available.
Skin sensitizer	May cause an allergic skin reaction.
Germ cell mutagenicity	No data available.
Carcinogenicity	This product is not considered to be a carcinogen by IARC, ACGIH, NTP, or OSHA.
Toxic to reproduction	No data available.
Specific target organ toxicity following single exposure	May cause respiratory irritation.
Specific target organ toxicity following repeated exposure	No data available.
Aspiration toxicity	Not classified.
Chronic effects	Repeated inhalation may result in respiratory sensitization.
Other information	No other specific acute or chronic health impact noted.

12. Ecological information

Ecotoxicological data

Product

Test Results

Green Silicate Phosphors

LC50 Pimephales promelas: 6285 mg/l 96 hours

Ecotoxicity

The product is not classified as environmentally hazardous. However, this does not exclude the possibility that large or frequent spills can have a harmful or damaging effect on the environment.

Persistence and degradability

No data available.

Bioaccumulation

No data available.

Mobility in soil

No data available.

Other hazardous effects

No data available.

13. Disposal considerations

Residual waste

Dispose in accordance with all applicable regulations.

Contaminated packaging

Empty containers should be taken to an approved waste handling site for recycling or disposal.

Local disposal regulations

Collect and reclaim or dispose in sealed containers at licensed waste disposal site. Do not discharge into drains, water courses or onto the ground.

14. Transport information

CNDG

Not regulated as dangerous goods.

IATA

Not regulated as dangerous goods.

IMDG

Not regulated as dangerous goods.

15. Regulatory information

Applicable regulations

This safety data sheet was prepared in accordance with GB/T 16483-2008: Safety Data Sheet for Chemical Products - Content and Order of Sections.

16. Other information

References

Not available.

Issued by

Company name

Stanford Advanced Materials

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