SAFETY DATA SHEET
SILICON OPTICAL CRYSTAL

1. IDENTIFICATION

1.1 PRODUCT IDENTIFIERS

Product Name: Silicon Optical Crystal

Synonyms, Trade Names: Si

1.2 RELEVANT IDENTIEFIED USES OF THE SUBSTANCE OR MIXTURE

Identified Uses: Optical Material for manufacture of Optical Components

1.3 DETAILS OF SUPPLIER OF THE SAFETY DATA SHEET

Company: American Photonics, Inc.
6621 19th Street East
Sarasota, FL 34243
(941) 752-5811

1.4 EMERGENCY TELEPHONE NUMBER

Emergency Phone: (941) 752-5811

Emergency Action: In the event of a medical enquiry involving this product, please contact your doctor or local hospital accident and emergency department.

2. HAZARDOUS IDENTIFICATION

2.1 CLASSIFICATION OF THE SUBSTANCE OR MIXTURE

Corrisive

Health	1
Flammability	0
Physical Hazard	0
Personal Protection	X

2.2 LABEL ELEMENTS

H315 Causes skin irritation

H319 Causes serious eye irritation

H332 Harmful if Inhaled

Precautionary Statements:

P262 Do not breath dust / fumes / gas / mist / vapors / spray

2.3 OTHER HAZARDS

None

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Component Name	CAS Number	Percentages are by weight
Silicon	7440-21-3	>99%

4. FIRST AID MEASURES

4.1 DESCRIPTION OF FIRST AID MEASURES

GENERAL: Consult a doctor for specific advice

EYES: Irrigate thoroughly with water for at least 15 minutes. If discomfort persists,

SKIN: Wash thoroughly with soap and water

INHALATION Move exposed to fresh air. Obtain medical attention

INGESTION: Wash out mouth thoroughly with water. In severe cases obtain medical attention

4.2 MOST IMPORTANT SYMPTOMS AND EFFECTS, BOTH ACUTE AND DELAYED

Irritation, Nausea, Headache, Shortness of breath

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

If seeking medial attention, provide SDS document to physician.

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

Use appropriate fire suppression agents for adjacent combustible materials or sources of ignition. Use water, dry chemical, chemical foam, carbon dioxide, or alcohol-resistant foam.

5.2 SPECIAL HAZARDS ARISING FROM THE SUBSTANCE OR MIXTURE

None Known

5.3 ADVICE FOR FIREFIGHTERS

Use breathing apparatus if necessary

6. ACCIDENTAL RELEASE MEASURES

6.1 PERSONAL PRECAUTIONS, PROTECTIVE EQUIPMENT AND EMERGENCY PROCUDURES

Wear suitable protective clothing & equipment as listed under Section 8. Avoid making dust.

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage. Do not let product enter drains. Do not discharge to the environment.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Keep in suitable closed containers for disposal. Wear protective eyeware, gloves and clothing. Refer to Section 8. Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.

6.4 REFERENCE TO OTHER SECTIONS

Dispose as in Section 13.

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING:

Minimize dust generation and accumulation. Follow good hygiene prodcedures when handling chemical materials. Refer to Section 8. Do not eat, drink, smoke, or use personal products when handling chemical substances. Avoid contact with eyes, skin, and clothing.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

Store away from incompatible materials. Protect from freezing and physical damage. Keep away from food and beverages. Provide ventilation for containers. Avoid storage near extreme heat, ignition sources or open flame. Store in cool, dry conditions in well sealed containers. Store with like hazards.

obtain medical attention

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

ACGIH TLV (United States 1/2009)

OCCUPATIONAL EXPOSURE LIMITS (OEL): 10mg/m³ Inhalable; Particulates (Insoluble) (PNOS)

8 hour Time Weighted Average (TWA). 4mg/m³ Respirable; Particulates (Insoluble) (PNOS)

8 hour Time Weighted Average (TWA).

8.2 EXPOSURE CONTROLS

Protective gloves made of PVA are required. Use of a laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possiblity of chipping or dust creation. Respirators must be worn when the threshold limit is exceeded. Provide adequate general mechanical ventilation, and local exhause ventilation. Wash hands immediately after handling the product.

9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Grey-black geometric shapes.
ODOR:	No Odor
BOILING POINT:	2355° C (4,271° F)
MELTING POINT:	1410° C (2,570° F)
AUTO/SELF-IGNITE TEMP	>400° C (>752° F)
FLASH POINT:	Not Determined
FLAMMABILITY:	Not Determined
RELATIVE DENSITY:	2.33 g/mL at 25° C (77° F)
SOLUBILITY IN WATER:	Insoluble
pH-value:	Not Determined
Explosive Properties:	Not Determined

9.2 OTHER SAFETY INFORMATION

None

10. STABILITY AND REACTIVITY

10.1 REACTIVITY: Reacts slowly with mineral acids.

10.2 CHEMICAL STABILITY Stable under normal conditions

10.3 POSSIBLITY OF HAZARDOUS REACTIONS

None under normal conditions

10.4 CONDITIONS TO AVOID: Incompatible materials.

10.5 INCOMPATIBLE MATERIALS:

Strong acids. Strong bases. Oxidizing agents

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Normally none.

11. TOXICOLOGICAL INFORMATION

11.1 ACUTE TOXICTY:

ORAL:	LD50 >3160 mg/kg (oral / rat)
CHRONIC TOXICTY:	No additional information
CORROSION IRRITATION:	No additional information
SENSITIZATION:	No additional information
SINGLE TARGET ORGAN:	No additional information
NUMERICAL MEASURES:	No additional information
CARCINOGENICITY:	No evidence of carcenogic properties
MUTAGENICITY:	No additional information
REPRODUCTIVE TOXICTY:	No additional information

12. ECOLOGICAL INFORMATION

12.1 TOXICITY:	No data
12.2 PERSISTENCE AND DEGRADABILITY	No data
12.3 BIOACCUMULATIVE POTENTIAL:	No data
12.4 MOBILITY IN SOIL:	No data
12.5 OTHER ADVERSE AFFECTS:	No environmental hazard is anticipated provided that the material is handled and disposed of with due care and attention.

13. DISPOSAL CONSIDERATIONS

13.1 Chemical residues are generally classified as special waste and are covered by regulations which vary according to location. Contact your local waste disposal authority for advice, or pass to a chemical disposal company.

14. TRANSPORT INFORMATION

14.1 UN NUMBER:	None
14.2 UN PROPER SHIPPING NAME:	Not subject to transport regulations
14.3 TRANSPORT HAZARD CLASS:	None
14.4 PACKING GROUP:	None
14.5 ENVIRONMENTAL HAZARDS:	None
14.6 SPECIAL PRECAUTIONS FOR USER:	None
14.7 TRANSPORT IN BULK:	No data

15. REGULATORY INFORMATION

15.1 UNITED STATES (US)

SARA Section 311/312 (Specific toxic chemical listings):

Fire

SARA Section 313 (Specific toxic chemical listings):

None

RCRA (Hazardous waste code):

None

TSCA (Toxic Substances Control Act):

All ingredients are listed

CERCLA (Comprehensive Environmental Response, Compensation, and Liablity Act

None of the ingredients are listed.

15.2 PROPOSITION 65 (California)

Chemicals known to cause cancer:	None
Chemicals known to cause reproductive toxicity for females:	None
Chemicals known to cause reproductive toxicity for males:	None
Chemicals known to cause developmental toxicity:	None

16. OTHER INFORMATION

16.1 The above information is believed to be correct, but does not purport to be all inclusive and must be used only as a guide.

16.2 REVISION DATE: 03.23.2020