

SAFETY DATA SHEET FUSED SILICA

1. IDENTIFICATION

1.1 PRODUCT IDENTIFIERS

Product Name: FUSED SILICA
Synonyms, Trade Names: SiO₂

1.2 RELEVANT IDENTIFIED USES OF THE SUBSTANCE OR MIXTURE

Identified Uses: Optical material for manufacturing 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

No Hazardous Product as specified in Directive 67/548/EEC

2.2 LABEL ELEMENTS

Precautionary Statements:
P262 Do not breathe dust / fumes / gas / mist / vapors
sprays.

2.3 OTHER HAZARDS

None

Health	0
Flammability	0
Physical Hazard	0
Personal Protection	B
	

3. COMPOSITION / INFORMATION ON INGREDIENTS

3.1 SUBSTANCES

Component Name	CAS Number	%	EC Number (EINECS)	EU Index
Silicon Dioxide	60676-86-0*	>99%	262-373.8	-

*Refer to the notes on CAS number in Section 16

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. Obtain medical attention.
SKIN: Wash thoroughly with soap and water.
INHALATION: Remove 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

Refer to section 2.2 and to section 11.

4.3 INDICATION OF ANY IMMEDIATE MEDICAL ATTENTION AND SPECIAL TREATMENT NEEDED

No Data

5. FIRE FIGHTING MEASURES

5.1 EXTINGUISHING MEDIA

This product does not burn.

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 PROCEDURES

None

6.2 ENVIRONMENTAL PRECAUTIONS

Prevent further leakage or spillage.

6.3 METHODS AND MATERIALS FOR CONTAINMENT AND CLEANING UP

Dispose of as normal waste.

6.4 REFERENCE TO OTHER SECTIONS

None

7. HANDLING AND STORAGE

7.1 PRECAUTIONS FOR SAFE HANDLING

Protect against physical damage and avoid generating dust.

7.2 CONDITIONS FOR SAFE STORAGE, INCLUDING ANY INCOMPATIBILITIES

No specific precautions needed.

7.3 SPECIFIC END USES

Optical Material for Manufacture of Optical Components.

8. EXPOSURE CONTROL AND PERSONAL PROTECTION

8.1 CONTROL PARAMETERS

OCCUPATIONAL EXPOSURE LIMITS (OEL): Total inhalable silica dust: Long term 0.1 mg/m³

8.2 EXPOSURE CONTROLS

Use of laboratory coat is suggested. Safety goggles or safety glasses with side shields are required if there is any possibility of chipping or dust creation. Avoid breathing dust when generated. Wash hands immediately after handling the product.



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9. PHYSICAL AND CHEMICAL PROPERTIES

9.1 INFORMATION ON BASIC PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Clear geometric shapes.
ODOR:	No Odor
BOILING POINT:	2230°C (4046°F)
MELTING POINT:	1600° C (2912° F)
AUTO/SELF-IGNITE TEMP:	Not applicable
FLASH POINT:	Not applicable
FLAMMABILITY:	Not applicable
RELATIVE DENSITY:	2.203 g/mL
SOLUBILITY IN WATER:	Practically soluble
pH-value:	Not Determined
Explosive Properties:	Not applicable
Vapor Pressure:	Negligible at 25°C (77°F)

9.2 OTHER SAFETY INFORMATION

None

10. STABILITY AND REACTIVITY

10.1 REACTIVITY:

Reacts with some mineral acids.

10.2 CHEMICAL STABILITY

Stable under normal conditions

10.3 POSSIBILITY OF HAZARDOUS REACTIONS

None known

10.4 CONDITIONS TO AVOID:

Strong hot alkali solutions and Hydrofluoric, Fluosilicic and Phosphoric Acids

10.5 INCOMPATIBLE MATERIALS:

Strong Mineral Acids.

10.6 HAZARDOUS DECOMPOSITION PRODUCTS:

Normally none

11. TOXICOLOGICAL INFORMATION

11.1 INFORMATION ON TOXICOLOGICAL EFFECTS

Particular care must be exercised when machining and creating dust or particules.

TOXIC DOSE - LD50 > 3160 mg/kg (oral, rat)

CARCINOGENICITY: No evidence of carcinogenic properties.

MUTAGENICITY/TERATOGENICITY: No evidence of reproductive effects.



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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 RESULTS OF PBT AND vPvB ASSESSMEN	Not required or conducted
12.6 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 WASTE TREATMENT METHODS

Should be disposed of carefully in designated glass disposal bins.

14. TRANSPORT INFORMATION

14.1 UN NUMBER:	None
14.2 UN PROPER SHIPPING NAME:	Not subject to transportation 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 SAFETY, HEALTH AND ENVIRONMENTAL REGULATIONS / LEGISLATIONS SPECIFIC FOR THE SUBSTANCE

TSCA: Listed in the TSCA inventory

16. OTHER INFORMATION

***NOTE:** The assignation of a CAS number to Silicon Dioxide is confused.

CAS# 60676-86-0 Described as "Amorphous Fused Silica", "Fused Silica Dioxide", "Quartz Glass", "Silica Glass", is valid and used in other manufacturers SDS for similar product.

CAS# 7631-86-9 Described as "Silica", "Silica Dust", or "Fused Silica Dioxide" is valid but more appropriate to the powdered precursors product.

CAS # 15468-32-3 Described as "Silica", "Silica Dust", or "Quartz Glass" is valid but not commonly used in other manufacturers SDS for similar product.

CAS# 14808-60-7 Described as "Silica", "Silica Dust", "Silica Sand" or "Quartz Crystal" is valid but considered by us to be more applicable to Crystalline Quartz.

The choice of CAS# does not significantly affect the advice given in this SDS sheet.

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