



Silicon dioxide (Pieces, Sputtering target)

1. Product Identification

Trade Name:	Silicon dioxide (pieces, Sputtering Target)
Chemical Formula:	SiO ₂
Recommended Use:	Scientific research and development

2. Hazards Identification

Signal Word:	None in Provided Form
Hazard Statements:	Not classified as hazardous in provided form
Precautionary Statements	Under normal handling and use, exposure to solid forms of this material present few health hazards. If subsequent operations produce dust or fumes, these may irritate lungs, eyes or skin. Long-term exposure to respirable crystalline silica dusts may cause silicosis or cancer. P201: Obtain special instructions before use P280: Wear protective gloves/protective clothing/eye protection/face protection.
HMIS Ratings (0-4):	
Health:	1
Flammability:	0
Physical:	0

3. Composition

Chemical Family:	Ceramic
Additional Names:	Quartz, Silica, Silicic oxide, Silicon (IV) oxide, Crystalline silica, Cristobalite
Silicon Oxide (SiO ₂):	
Percentage:	100 wt%
CAS #:	7631-86-9, 14808-60-7
EC #:	231-545-4, 238-878-4

4. First Aid Procedures

General Treatment:	Seek medical attention if symptoms persist.
Special Treatment:	None
Important Symptoms:	None
Inhalation:	Remove victim to fresh air. Supply oxygen if breathing is difficult.
Ingestion:	Seek Medical Attention.
Skin:	Wash affected area with mild soap and water. Remove any contaminated clothing.
Eyes:	Flush eyes with water, blinking often for several minutes. Remove contact lenses if present and easy to do. Continue rinsing

5. Firefighting Measures

Flammability:	Non-flammable
Extinguishing Media:	No special restrictions – use suitable extinguishing agent for surrounding material and type of fire.

Silicon dioxide (Pieces, Sputtering Target)

Spec. 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.

6. Accidental Release Measures

If Material Is Released/Spilled: Wear appropriate respiratory and protective equipment specified in special 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.

7. Handling and Storage

Handling Conditions: Wash thoroughly after handling.
Storage Conditions: 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.

8. Exposure Controls and Personal Protection

Permissible Exposure Limits: N/A
Threshold Limit Value: 3000 mg/m³ as Silicon dioxide amorphous pieces
Special Equipment: None
Respiratory Protection: Dust Respirator
Protective Gloves: Rubber gloves
Eye Protection: Safety glasses or goggles
Body Protection: Protective work clothing. Wear close-toed shoes and long sleeves/pants.

9. Physical and Chemical Characteristics

Color: White to pale brown
Form: Granules, Pieces, Sputtering target, Custom parts
Odor: Odorless
Water Solubility: Insoluble
Boiling Point: 2230 °C
Melting Point: 1710 °C
Flash Point: N/A
Autoignition Temperature: N/A
Density: N/A
Molecular weight: 60.08 g/mol

10. Reactivity

Stability: Stable under recommended storage conditions
Reacts With: None

Silicon dioxide (Pieces, Sputtering Target)

Incompatible Conditions: None
Hazardous Decomposition Products: Silicon Oxide

11. Toxicological Information

Potential Health Effects:

Eyes: May cause irritation
Skin: May cause irritation
Ingestion: May cause irritation
Inhalation: May cause irritation
Chronic: Inhalative- Not relevant- solid pieces

Signs & Symptoms: N/A
Aggravated Medical Conditions: N/A
Median Lethal Dose: N/A
Carcinogenicity: Based on available data the classification criteria are not met.
IARC Carcinogenicity: None of the ingredients are listed or exempt.

12. Ecological Information

Aquatic Toxicity: N/A
Persistent Bioaccumulation Toxicity: N/A
Very Persistent, Very Bio-accumulative: N/A
Notes: Do not allow material to be released to the environment without proper governmental permits
Do not allow undiluted product or large quantities to reach ground water, water course, or sewage system Avoid transfer into the environment

13. Disposal Considerations

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

14. Transportation Data

Hazardous: Not hazardous for transportation
The product is not covered by international regulations on the transport of dangerous goods (IMDG, IATA, DoT).
Hazard Class: N/A
Packing Group: N/A
UN Number: N/A
Proper Shipping Name: N/A

15. Regulatory Information

Sec 302 Extremely Hazardous: N/A
Sec 304 Reportable Quantities: N/A
Sec 313 Toxic Chemicals: N/A

16. Other Information

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This safety data sheet should be used in conjunction with technical sheets. It does not replace them. **No warranty, guarantee or representation is made to its accuracy, reliability or completeness.** These materials should only be handled by, or under the direct supervision of a “technically qualified individual”, as defined in TSCA regulations 40 CFR 710.3(ee). 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

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