

Safety Data Sheet Cordierite Ceramic (Refractory Grade)

SECTION 1: Identification

Product identifier

Product name	Cordierite Ceramic Tube
Substance name	Magnesium Aluminum Silicate
	$2\text{MgO} \bullet 2\text{Al}_2\text{O}_3 \bullet 5\text{SiO}_2$
Other names / synonyms	Cordierite Ceramic

Recommended use of the chemical and restrictions on use

Technical Ceramic Components

Supplier's details

Name	Stanford Advanced Materials
Address	23661 Birtcher Dr., Lake Forest, CA 92630 U.S.A.

Telephone	(949) 407-8904
Fax	(949) 812-6690

Emergency phone number(s)	(949) 407-8904
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SECTION 2: Hazard identification

This product is considered an article and does not pose any health hazard under normal use. The health effects listed below may be relevant when dust is generated during machining or other processing conditions.

Classification of the substance or mixture

- Carcinogenicity (chapter 3.6), Cat. 1
- Specific target organ toxicity, repeated exposure (chapter 3.9), Cat. 1

GHS label elements, including precautionary statements

Pictogram



Signal word

Danger

Hazard statement(s)

H335	May cause respiratory irritation
H350i	May cause cancer by inhalation.
H372	Causes damage to organs through prolonged or repeated exposure

Precautionary statement(s)

P201	Obtain special instructions before use.
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P202	Do not handle until all safety precautions have been read and understood.
P260	Do not breathe dust/fume/gas/mist/vapours/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.
P308+P313	IF exposed or concerned: Get medical advice/attention.
P314	Get medical advice/attention if you feel unwell.

Other hazards which do not result in classification

This product has the potential of generating respirable dust during machining. Dust may contain respirable crystalline silica. Prolonged inhalation of respirable crystalline silica dust may cause lung fibrosis, commonly referred to as silicosis. Principal symptoms of lung fibrosis are cough and breathlessness. Control and monitor occupational exposure to respirable crystalline silica dust in accordance to federal, state and local laws.

SECTION 3: Composition/information on ingredients

Components

1. Cordierite

Concentration 90 - 99 %

Other names / synonyms Cordierite
CAS no. 1302-88-1

2. Silicates (less than 1% crystalline silica), Soapstone, respirable dust

Concentration 1 - 10 %

Other names / synonyms Silicates (less than 1% crystalline silica), Soapstone, respirable dust

SECTION 4: First-aid measures

Description of necessary first-aid measures

If inhaled	Move to fresh air and consult with local medical personnel if discomfort persists.
In case of skin contact	Wash affected area with soap and water and consult with local medical personnel if irritation persists.
In case of eye contact	Flush with tepid water for a minimum of 15 minutes and consult with local medical personnel if discomfort persists.
If swallowed	Administer water to dilute, but not if person is unconscious. Consult with local medical personnel if discomfort persists.

SECTION 5: Fire-fighting measures

Suitable extinguishing media

Use any means suitable for extinguishing surrounding fire.

Specific hazards arising from the chemical

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Use protective clothing and breathing equipment appropriate for the surrounding fire and to protect against the dust that may be dispersed in the air.

SECTION 6: Accidental release measures

Personal precautions, protective equipment and emergency procedures

Any dust from machining should be wet mopped or dry vacuumed.

Methods and materials for containment and cleaning up

Any dust from machining should be wet mopped or dry vacuumed.

SECTION 7: Handling and storage

Precautions for safe handling

Any dust from machining should be wet mopped or dry vacuumed.

SECTION 8: Exposure controls/personal protection

Control parameters

1. Silicates (less than 1% crystalline silica), Soapstone, respirable dust

PEL (Inhalation): See Annotated Z-3 ppm (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

2. Silicates (less than 1% crystalline silica), Soapstone, respirable dust

PEL (Inhalation): See Annotated Z-3 mg/m³ (OSHA)

OSHA Annotated Table Z-1, www.osha.gov

3. Silicates (less than 1% crystalline silica), Soapstone, respirable dust

PEL (Inhalation): See Annotated Z-3 (Cal/OSHA)

OSHA Annotated Table Z-1, www.osha.gov

4. Silicates (less than 1% crystalline silica), Soapstone, respirable dust

REL (Inhalation): See Annotated Z-3 (NIOSH)

OSHA Annotated Table Z-1, www.osha.gov

Appropriate engineering controls

Local or general exhaust ventilation recommended.

Individual protection measures, such as personal protective equipment (PPE)

Eye/face protection

Safety goggles in the presence of airborne dust.

Skin protection

Polymer gloves for prolonged dust exposure.

Respiratory protection

NIOSH/MSHA approved respirator for dust when exposure limit is exceeded.

SECTION 9: Physical and chemical properties

Information on basic physical and chemical properties

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Appearance/form	Orange/Tan Solid
Odor	Odorless
Odor threshold	N/A
pH	N/A
Melting point	1460°C (2660°F)
Initial boiling point and boiling range	N/A
Flash point	N/A
Evaporation rate	N/A
Flammability (solid, gas)	N/A
Upper/lower flammability limits	N/A
Upper/lower explosive limits	N/A
Vapor pressure	N/A
Vapor density	N/A
Relative density	2.0 g/cc
Solubility(ies)	Insoluble in water
Partition coefficient: n-octanol/water	N/A
Auto-ignition temperature	N/A
Decomposition temperature	N/A
Viscosity	N/A
Explosive properties	N/A
Oxidizing properties	N/A

SECTION 10: Stability and reactivity

Chemical stability

Stable

SECTION 11: Toxicological information

Information on toxicological effects

Respiratory or skin sensitization

See Section 2

Carcinogenicity

See Section 2

STOT-repeated exposure

See Section 2

SECTION 12: Ecological information

No Applicable Information Found

SECTION 13: Disposal considerations

Disposal of the product

This material is not hazardous per 40 CFR 261. Consultation with federal, state and local officials is recommended before disposal.

SECTION 14: Transport information

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DOT (US)

Not dangerous goods

IMDG

Not dangerous goods

IATA

Not dangerous goods

SECTION 15: Regulatory information

US FEDERAL

TSCA

CAS# 1302-88-1 is listed on the TSCA inventory.

SARA Section 302 Extremely Hazardous Substances

Substance Not Listed.

Section 313

Substance Not Listed.

OSHA:

None of the chemicals in this product are considered highly hazardous by OSHA.

US STATE

Crystalline silica (airborne particles of respirable size) can be found on the following state right to know lists:

Massachusetts, New Jersey, Pennsylvania, Texas.

Consult your state and local resources for further information.

California Prop 65

Crystalline silica (airborne particles of respirable size) is known to the state of California to be a carcinogen.

SECTION 16: Other information

Further information/disclaimer

Although reasonable care has been taken to provide accurate and current information in preparation of this document, Stanford Advanced Materials extends no warranties, makes no representation and assumes no responsibility for any loss, damage, or injury of any kind which may result from reliance of information provided in this document by any person.

Preparation Information

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