

Safety Data Sheet



Section 1: Identification

Product identifier

Product Name

- **Fused Quartz; Amorphous Fused Silica with PTFE coating**

Synonyms

- 7 – 15 micron QUARTZEL Silica Yarn; Chopped Strands with PTFE coating; Roving

Relevant identified uses of the substance or mixture and uses advised against**Recommended use**

- Textile or composite applications

Details of the supplier of the safety data sheet**Manufacturer**

- Saint-Gobain Quartz USA
7201 Distribution Drive
Louisville, KY 40258-2828
United States
<http://www.quartz.saint-gobain.com>

Telephone (General) • 502-933-1005

Emergency telephone number**Manufacturer**

- 502-995-2518

Section 2: Hazard Identification

United States (US)

According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture**OSHA HCS 2012**

- Not classified

Label elements**OSHA HCS 2012****Hazard statements**

- No label element(s) required

Other hazards**OSHA HCS 2012**

- This product is not considered hazardous under the U.S. OSHA 29 CFR 1910.1200 Hazard Communication Standard.

Section 3 - Composition/Information on Ingredients

Substances

- Material does not meet the criteria of a substance.

Mixtures

Composition					
Chemical Name	Identifiers	%	LD50/LC50	Classifications According to Regulation/Directive	Comments
Amorphous/fused silica	CAS:60676-86-0	> 97.75%	NDA	OSHA HCS 2012: Not Classified	NDA
Polytetrafluoroethylene	CAS:9002-84-0	1.0125% TO 1.4625%	NDA	OSHA HCS 2012: Not Classified	NDA
Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	CAS:60828-78-6	0.0225% TO 0.225%	Ingestion/Oral-Rat LD50 • 7460 µL/kg Skin-Rabbit LD50 • 4780 µL/kg	OSHA HCS 2012: Eye Irrit. 2	NDA

Section 4: First-Aid Measures

Description of first aid measures

Inhalation

- Move victim to fresh air. Give artificial respiration if victim is not breathing. Administer oxygen if breathing is difficult. If signs/symptoms continue, get medical attention.

Skin

- In case of contact with substance, immediately flush skin with running water for at least 20 minutes.

Eye

- In case of contact with substance, immediately flush eyes with running water for at least 20 minutes.

Ingestion

- Rinse mouth. Do not give anything by mouth to an unconscious person.

Most important symptoms and effects, both acute and delayed

- Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to Physician

- No specific actions or treatments recommended related to exposure to this material.

Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media

- Not combustible. Use extinguishing media suitable for surrounding fire.

Unsuitable Extinguishing Media

- No data available.

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards

- None known.

Hazardous Combustion Products

- No data available.

Advice for firefighters

- Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters' protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions

- Do not walk through spilled material. Wear appropriate Personal Protective Equipment (PPE).

Emergency Procedures

- As an immediate precautionary measure, isolate spill or leak area for at least 25 meters (75 feet) in all directions. If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions. Keep unauthorized personnel away.

Environmental precautions

- Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up

Containment/Clean-up Measures

- Carefully shovel or sweep up spilled material and place in suitable container.

Reference to other sections

- Refer to Section 8 - Exposure Controls/Personal Protection and Section 13 - Disposal Considerations.

Section 7 - Handling and Storage

Precautions for safe handling

Handling

- Use only in well ventilated areas. Wear appropriate personal protective equipment, avoid direct contact. Avoid breathing dust.

Conditions for safe storage, including any incompatibilities

Storage

- Keep container closed.

Specific end use(s)

- Refer to Section 1.2 - Relevant identified uses.

Section 8 - Exposure Controls/Personal Protection

Control parameters

Exposure Limits/Guidelines

	Result	Exposure Limits/Guidelines	
		ACGIH	OSHA
Polytetrafluoroethylene	TWAs	10 mg/m ³ TWA (inhalable particles, recommended); 3 mg/m ³ TWA (respirable particles, recommended) <i>as Particulates not otherwise classified (PNOC)</i>	15 mg/m ³ TWA (total dust); 5 mg/m ³ TWA (respirable fraction) <i>as Particulates not otherwise classified (PNOC)</i>

Exposure Limits Supplemental

OSHA

- Amorphous/fused silica (60676-86-0): **Mineral Dusts:** ((80))/(% SiO₂) mg/m³ TWA; 20 mppcf TWA)

Exposure controls

Engineering Measures/Controls

- Dilution ventilation. Adequate ventilation systems as needed to control concentrations of airborne contaminants below applicable threshold limit values.

Personal Protective Equipment

Respiratory

- For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are

exceeded or symptoms are experienced.

- Wear safety goggles.
- Wear appropriate gloves. Wear long sleeves and/or protective coveralls.
- Follow best practice for site management and disposal of waste.

Eye/Face**Skin/Body****Environmental Exposure Controls****Key to abbreviations**

TWA = Time-Weighted Averages are based on 8h/day, 40h/week exposures

ACGIH = American Conference of Governmental Industrial Hygiene

OSHA = Occupational Safety and Health Administration

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

Material Description

Physical Form	Solid	Appearance/Description	Off-white to brown fiber strands, with a PTFE coating that comprises <27% of total weight. Little to no odor.
Color	Off-white to brown. Off-white to brown.	Odor	Little to no odor.
Odor Threshold	No data available		

General Properties

Boiling Point	No data available	Melting Point/Freezing Point	No data available
Decomposition Temperature	No data available	pH	No data available
Specific Gravity/Relative Density	No data available	Bulk Density	2.2 g/cm ³
Water Solubility	Negligible < 0.1 %	Viscosity	No data available

Volatility

Vapor Pressure	10 mmHg (torr) @ 1732 C(3149.6 F)	Vapor Density	No data available
Evaporation Rate	No data available	Volatiles (Wt.)	0 %
Volatiles (Vol.)	0 %		

Flammability

Flash Point	No data available	UEL	No data available
LEL	No data available	Autoignition	No data available
Flammability (solid, gas)	No data available		

Environmental

Octanol/Water Partition coefficient	No data available		
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Section 10: Stability and Reactivity

Reactivity

- No dangerous reaction known under conditions of normal use.

Chemical stability

- Stable under normal temperatures and pressures.

Possibility of hazardous reactions

- Hazardous polymerization not indicated.

Conditions to avoid

- Avoid creating dusts.

Incompatible materials

- Alkalis and hydrofluoric acid; oxygen difluoride, chlorine trifluoride, manganese trifluoride, and other powerful oxidizers.

Hazardous decomposition products

- Amorphous silicate is transformed into crystalline silicate in the presence of alkali at about 800°C. From the PTFE coating, hydrogen fluoride and perfluoroolefins (above 200°C). The OSHA permissible exposure limit for HF is 3 ppm.

Section 11 - Toxicological Information

Information on toxicological effects

Components		
Amorphous/fused silica (> 97.75%)	60676-86-0	Multi-dose Toxicity: Inhalation-Rat TCl ₀ • 197 mg/m ³ 6 Hour(s) 26 Week(s)-Intermittent; <i>Lungs, Thorax, or Respiration</i> : Changes in lung weight; Tumorigen / Carcinogen: Implant-Rat TDLo • 400 mg/kg; <i>Tumorigenic</i> : Equivocal tumorigenic agent by RTECS criteria; <i>Gastrointestinal</i> : Tumors; <i>Tumorigenic</i> : Tumors at site of application
Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether (0.0225% TO 0.225%)	60828-78-6	Acute Toxicity: Ingestion/Oral-Rat LD50 • 5650 mg/kg; Skin-Rabbit LD50 • 4780 µL/kg; Irritation: Eye-Rabbit • 100 mg • Severe irritation; Skin-Rabbit • 500 mg-Open • Mild irritation

GHS Properties	Classification
Respiratory sensitization	OSHA HCS 2012 • No data available
Serious eye damage/Irritation	OSHA HCS 2012 • No data available
Acute toxicity	OSHA HCS 2012 • No data available
Aspiration Hazard	OSHA HCS 2012 • No data available
Carcinogenicity	OSHA HCS 2012 • No data available
Skin corrosion/Irritation	OSHA HCS 2012 • No data available
Skin sensitization	OSHA HCS 2012 • No data available
STOT-RE	OSHA HCS 2012 • No data available
STOT-SE	OSHA HCS 2012 • No data available
Toxicity for Reproduction	OSHA HCS 2012 • No data available
Germ Cell Mutagenicity	OSHA HCS 2012 • No data available

Potential Health Effects

Inhalation

Acute (Immediate)

- Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)

- Repeated and prolonged exposure to dust may cause lung effects including pneumoconiosis.

Skin

Acute (Immediate)

- Exposure to dust may cause mechanical irritation.

Chronic (Delayed)

- No data available.

Eye

- Acute (Immediate)**
 - Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
 - Chronic (Delayed)**
 - No data available.
- Ingestion**
- Acute (Immediate)**
 - Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.
 - Chronic (Delayed)**
 - No data available.

Key to abbreviations

LD = Lethal Dose
 TC = Toxic Concentration
 TD = Toxic Dose

Section 12 - Ecological Information

- Toxicity**
- No information available for the product.
- Persistence and degradability**
- No information available for the product.
- Bioaccumulative potential**
- No information available for the product.
- Mobility in Soil**
- No information available for the product.
- Other adverse effects**
- No information available for the product.

Section 13 - Disposal Considerations

- Waste treatment methods**
- Product waste**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.
- Packaging waste**
- Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

	UN number	UN proper shipping name	Transport hazard class(es)	Packing group	Environmental hazards
DOT	NDA	Not Regulated	NDA	NDA	NDA

- Special precautions for user**
- None specified.
- Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code**
- No data available

Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture**SARA Hazard Classifications** • None

State Right To Know		
Component	CAS	PA
Amorphous/fused silica	60676-86-0	No
Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	No
Polytetrafluoroethylene	9002-84-0	Yes

Inventory		
Component	CAS	TSCA
Amorphous/fused silica	60676-86-0	Yes
Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Yes
Polytetrafluoroethylene	9002-84-0	Yes

United States**Labor****U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals**

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - OSHA - Specifically Regulated Chemicals

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

Environment**U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants**

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Section 313 - Emission Reporting

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

United States - California**Environment****U.S. - California - Proposition 65 - Carcinogens List**

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - California - Proposition 65 - Developmental Toxicity

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Female

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - California - Proposition 65 - Reproductive Toxicity - Male

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

United States - Pennsylvania

Labor**U.S. - Pennsylvania - RTK (Right to Know) - Environmental Hazard List**

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

U.S. - Pennsylvania - RTK (Right to Know) - Special Hazardous Substances

• Polyethylene glycol mono(3,5-dimethyl-1-isobutylhexyl) ether	60828-78-6	Not Listed
• Polytetrafluoroethylene	9002-84-0	Not Listed
• Amorphous/fused silica	60676-86-0	Not Listed

Section 16 - Other Information**Revision Date**

- 24/February/2020

Preparation Date

- 12/April/2015

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Key to abbreviations

NDA = No data available