

## Material Safety Data Sheet

### Section 1 – Product Identification

Trade Names: **Quartz-Lock 2™** Grout, Product #120120B  
Common Names/Synonyms: Urethane Polymer, Quartz based grout  
Product Use: Grout for Tile and Stone  
Manufacturer's Name & Address: StarQuartz Industries, Inc., 1300 Russell Street, Baltimore, MD 21230  
Manufacturer's Telephone: 1-866-220-4500 Manufacturer's Fax: 1-866-220-4700  
Emergency Number: 1-866-220-4500

### Section 2 – Composition and Information on Ingredients

This product may contain varying concentrations of the following:

Component	CAS No.	% by Wt	OSHA PEL (mg/m <sup>3</sup> )	ACGIH TLV (mg/m <sup>3</sup> )
Quartz, Sand, Crystalline Silica*	14808-60-7	72	$\frac{10 \text{ mg/m}^3}{\% \text{ SiO}_2+2}$	0.025
Polyurethane/ Aqueous polymer dispersion	Proprietary	9	Not established	Not established
Glass, Soda Lime	65997-17-3	7	15 total dust/ 5 respirable	10 inhalable/ 3 respirable

\* Exposure Limits for silica refer to the respirable fraction.

**Quartz-Lock 2™ grout is composed primarily of ground quartz that is bound in a polyurethane polymer matrix, resulting in a semi-pliable, non-hardening, encapsulated product. Under conditions of its intended use and handling, the use of this product will not result in the occupational exposure of employees to airborne dust in excess of applicable regulatory standards. The crystalline silica contained in Quartz-Lock 2™ grout, as delivered, cannot be inhaled. Crystalline silica can only cause lung damage if inhaled.**

### Section 3 – Hazards Identification

Quartz-Lock 2™ grout, unlike traditional grout, uses an aqueous polyurethane-based polymer to bind the quartz component into a pliable, non-hardening matrix resulting in a product with low/no dust-producing potential. Even when cured, Quartz-Lock 2™ grout will not crumble, crack, or produce dry dust when sanded or abraded. The use of abrasives against the cured product will result in the creation of a gummy residue without the dust-producing potential of conventional grouts.

#### Emergency Overview

StarQuartz Industries' Quartz-Lock 2™ grout is a water-based polymer, quartz aggregate blend having mortar-like texture and a slight odor. This material may produce respiratory irritation during use due to the evaporation of some glycol ether co-solvents. Eye and skin contact with the uncured product should also be avoided (See section 8 – Exposure Controls/Personal Protection).

#### Potential Health Effects

**Inhalation:** This product may cause dizziness, headache, or nausea if used in a poorly ventilated area due to the evaporation of co-solvents as the product dries/cures.

**Eye Contact:** Eye contact may cause severe irritation.

**Skin Contact:** May cause drying or irritation to the skin.

**Ingestion:** No known health effect.

**Acute Effects:** Eye irritation, drying of the skin, nausea, dizziness, or headaches.

See Section 11, Toxicological Information, for additional details on potential adverse health effects.

### Section 4 – First Aid Procedures

**Inhalation:** Remove the person to fresh air, obtain medical attention, and perform artificial respiration if needed.

**Eye:** Flush the eye with water for at least 15 minutes. If irritation persists, seek medical attention.

**Skin:** Wash exposed skin with mild soap and water. Treat affected area with skin moisturizer.

**Ingestion:** If large amounts are ingested, do not induce vomiting. Have the victim drink two glasses of water. Seek medical attention.

**Section 5 – Fire Fighting Measures**

Flashpoint:	None	Explosive Limits:	Not Combustible
Auto-ignition Temperature:	None	Unusual Fire and Explosion Habits:	None
Hazardous Combustion Products:	None	Special Fire Fighting Procedures:	None unique to this product.
Extinguishing Media:	Appropriate to surrounding fire.		

**Section 6 – Accidental Release Measures**

Wear appropriate personal protective equipment as described in Section 8 of this document. Contain and remove spills using an inert absorbent (e.g., dry sand or earth). Place the product in a covered container appropriate for disposal. Dispose of the product according to federal, state, and local regulations (Also see Section 13 – Disposal Considerations and Section 15 – Regulatory Information).

**Section 7 – Handling and Storage**

Avoid eye and skin contact (See section 8 – Exposure Controls/Personal Protection). Protect product from freezing, use adequate ventilation, and do not store above 110°F. Close container immediately after use to prevent drying of product. Keep out of reach of children.

**Section 8 – Exposure Controls/Personal Protection**

**Quartz-Lock 2™ grout, as delivered, is an encapsulated product in which the quartz component (containing crystalline silica) is bound in a polymer matrix. The crystalline silica contained in this product cannot be inhaled under conditions of intended product use.**

Ventilation:	Use general dilution or local exhaust as required to maintain exposures below the occupational exposure limits; see also ACGIH, <u>Industrial Ventilation – Recommended Practice</u> (latest edition).		
Respiratory Protection:	Avoid breathing vapors produced during the use and handling of this product. Consult with OSHA regulations and NIOSH recommendations to determine the appropriate NIOSH-approved respiratory protection to wear during and following use, including clean-up, of this product.		
Gloves:	PVC gloves are recommended in situations where skin contact may occur.		
Eye:	Use ANSI approved protection as appropriate for the task at hand, including goggles or safety glasses with side shields.		
Other:	Use protective clothing as appropriate for the work environment.		

**Section 9 – Physical and Chemical Properties**

Appearance:	Mortar-like material of varying color	Odor:	Slight
Physical State:	Heavy paste with suspended aggregate	pH:	8.3-8.8
Vapor Pressure	< 17 mm-Hg	Vapor Density:	Not Applicable
Boiling Point:	212 °F	Melting Point:	32 °F (keep from freezing)
Solubility In Water:	100%	Density:	14.8 lbs/gal

**Section 10 – Stability and Reactivity**

Stability:	Stable
Materials to Avoid:	Strong Oxidizers such as fluorine, chlorine trifluoride, and oxygen difluoride.
Hazardous Decomposition Products:	Silica dissolves in hydrofluoric acid to produce a corrosive gas; silicon tetrafluoride.
Hazardous Polymerization:	Will not occur

**Section 11 – Toxicological Information**For Polyurethane Copolymer:

LD<sub>50</sub> oral, rat: >2,000 mg/kg – Estimate, based on analogy to similar products. This ingredient is not listed by NTP, IARC, or OSHA as a carcinogen.

For Respirable Crystalline Silica:

Chronic (prolonged) inhalation of this free crystalline silica may cause delayed lung injury, including silicosis. IARC has classified crystalline silica as a known human carcinogen (Group I), and the NTP has characterized crystalline silica as a “reasonably anticipated human carcinogen.” **Quartz-Lock 2™ grout, as delivered, is an encapsulated product in which the quartz component (containing silica) is bound in a polymer matrix. The silica contained in this product cannot be inhaled under conditions of intended product use.**

For Soda Lime Glass:

There are no known reports of carcinogenicity of non-fibrous glass. Non-fibrous glass is not listed by IARC, NTP or OSHA as a carcinogen.

**Section 12 – Ecological Information**

For Polyurethane Copolymer: Fish Toxicity; LC<sub>50</sub> >500 mg/l – Estimate, based on analogy to similar products. Avoid contamination of groundwater or waterways.

For Soda Lime Glass: There are no known reports of ecotoxicity of non-fibrous glass.

For Crystalline Silica: Crystalline silica is not known to be ecotoxic, i.e., there are no data that suggests that crystalline silica is toxic to birds, fish, invertebrates, microorganisms, or plants.

**Section 13 – Disposal Considerations**

General: Unused product should be disposed of in accordance with Federal, State, or local regulations. The finished, cured product may be land filled.

RCRA: Crystalline silica (quartz) is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

The above information applies to StarQuartz Industries' Quartz Lock 2™ grout only as sold. The product could be contaminated during use, and it is the responsibility of the user to assess the appropriate disposal method in this situation.

**Section 14 – Transport Information**

StarQuartz Industries' Quartz Lock 2™ grout is not a hazardous material for purposes of transportation under the U. S. Department of Transportation Table of Hazardous Materials, 49 CFR §172.101.

**Section 15 – Regulatory Information**

UNITED STATES (FEDERAL AND STATE)

TSCA No.: Crystalline silica (quartz) appears on the EPA TSCA inventory under the CAS Number 14808-60-7

RCRA: This product is not classified as a hazardous waste under the Resource Conservation and Recovery Act, or its regulations, 40 CFR §261 et seq.

CERCLA: This product is not classified as a hazardous substance under regulations of the Comprehensive Environmental Response Compensation and Liability Act (CERCLA), 40 CFR §302.

Emergency Planning and Community Right to Know Act: This product is not an extremely hazardous substances under Section 302 and are not toxic chemicals subject to the requirements of Section 313.

Clean Air Act: This product was not processed with or does not contain any Class I or Class II ozone depleting substances.

FDA: Silica is included in the list of substances that may be included in coatings used in food contact surfaces, 21 CFR §175.300(b)(3)(xxvi).

NTP: Respirable crystalline silica (quartz) is classified as a probable carcinogen.

OSHA Carcinogen: Crystalline silica (quartz) is not listed.

CANADA

WHMIS Classification: D-2

OTHER

EINECS No.: 231-545-4 (for silica)

EEC Label (Risk/Safety Phrases): R 48/20, R 40/20, S22, S38 (for silica)

IARC: Crystalline silica (quartz) is classified in IARC Group 1.

National, state, provincial or local emergency planning, community right to know or other laws, regulations or ordinances may be applicable--consult applicable national, state, provincial or local laws.

**Section 16 – Other Information**

**Quartz-Lock 2™ grout, as delivered, is an encapsulated product in which the quartz component (containing crystalline silica) is bound in a polymer matrix. The crystalline silica contained in this product cannot be inhaled under conditions of intended product use.**

More information on the effects of crystalline silica exposure may be obtained from the Occupational Safety and Health Administration (OSHA) (phone number: 1-800-321-OSHA; website: <http://www.osha.gov>) or from the National Institute for Occupational Safety and Health (NIOSH) (phone number: 1-800-35-NIOSH; website: <http://www.cdc.gov/niosh>).