

**SECTION 1. Identification of the substance/mixture and of the company/undertaking:**

<b>Product identifier:</b>	Microsillex
<b>Other means of identification:</b>	Manufactured microsilica
<b>Relevant identified uses of the substance or mixture and uses advised against:</b>	is a natural silica based product with pozzolanic properties that is used to improve the performance and durability of Portland cement concrete and mortar. Pozzolanic materials possess little or no cementitious value, but are capable of reacting chemically with calcium hydroxide at ordinary temperatures to form compounds with cementitious properties.
<b>Suppliers details:</b>	GCC Rio Grande Inc. 2825 W. Paisano Dr. El Paso, TX 79922 Phone: (915) 544-1750 Fax: (915) 544-1762 1(800)CALLGCC 1(800) 225-5422 techserv@gcc.com
<b>Emergency telephone No:</b>	1(800) CALLGCC 1(800) 225-5422

**SECTION 2. Hazards identification:****Classification of the substance or mixture :**

<b>Physical hazards:</b>	Not classified		
<b>Health hazards:</b>	Skin irritation	Category 2	H315
	Skin Sensibilization	Category 1 Sub-Category 1A & 1B	H317
	Serious eye damage/ Eye irritation	Category 2A	H319
	Specific Target Organ Toxicity, Single Exposure	Category 3	H335

**GHS-US labeling Hazard pictograms (GHS-US):**

Signal word (GHS-US):

Hazard statements (GHS-US):

**Warning**

H315: Causes skin irritation  
H317: May cause an allergic skin reaction  
H319: Causes serious eye irritation  
H335: May cause respiratory irritation

## Precautionary statements (GHS-US):

P280: Wear protective gloves/protective clothing/eye protection/face protection.

P302 + P352: IF ON SKIN: Wash with plenty of water

P304 + P340: IF INHALED: Remove person to fresh air and keep comfortable for breathing

P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses if present and easy to do – continue rinsing

P332 + P313: If skin irritation occurs: Get medical advice/attention

P337 + P313: If eye irritation persists get medical advice/attention

P401: Store according the product requirements

### SECTION 3. Composition/information on ingredients:

#### Mixture:

Chemical name	CAS number	EINECS Number	%
SiO <sub>2</sub>	14808-60-7	238-878-4	88 - 90
Portion of SiO <sub>2</sub> that may be considered "Crystalline Silica"*:			
Quartz	14808-60-7	238-878-4	9.5-10.1
Cristobalite	14464-46-1	238-455-4	56.8-60.5
Tridymite	15468-32-3	239-487-1	4.7-5.7
Aluminum Oxide	1344-28-1	215-691-6	0.5-4.0
Iron Oxide	1309-37-1	215-168-2	0.1-1.0
Calcium Oxide	1305-78-8	215-138-9	0.1-4.0
Calcium Sulfate	13397-24-5	231-900-3	0.1-1.0

\*Based on representative bulk sample testing, a substantial proportion of the product consists of an intermediate, partially crystalline substance that is not identical to pure crystalline cristobalite tridymite or quartz. The analysis of these materials appear to reflect partially calcined silica that was initially amorphous or incompletely crystallized. There appears to be no information (peer reviewed or otherwise) regarding the specific toxicity of such an intermediate substance. To provide the most conservative and protective disclosure and PEL, this intermediary material is reported as SiO<sub>2</sub>.

## SECTION 4. First aid measures:

<b>Inhalation</b>	When symptoms occur: go into open air and ventilate suspected area. Obtain medical attention if breathing difficulty persists. Inhalation of gross amounts requires immediate medical attention.
<b>Skin contact</b>	Remove contaminated clothing. Brush off, then immediately flush skin with plenty of water for at least 60 minutes. Wash contaminated clothing before reuse. Contact physician if irritation persists or later develops.
<b>Eye contact</b>	Rinse cautiously with water for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Seek medical attention if redness persists or if visual changes occur.
<b>Ingestion</b>	If swallowed, dilute by drinking large amounts of water. Do not induce vomiting. Seek medical attention. If unconscious, loosen tight clothing and lay the person on his/her left side. Give nothing by mouth to an individual who is not alert and conscious.

**ADVICE TO DOCTOR:** Treat symptomatically

## SECTION 5. Fire-fighting measures:

<b>Suitable extinguishing media</b>	This material is not combustible. Appropriate extinguishing media for surrounding fire should be used.
<b>Fire hazard</b>	None known.
<b>Explosion hazard</b>	None known.
<b>Protection during firefighting</b>	As in any fire, wear self-contained breathing apparatus pressure demand, MSHA/NIOSH (approved or equivalent) and full protective gear.

## SECTION 6. Accidental release measures:

<b>Personal precautions, protective equipment and emergency procedures</b>	Keep people away from and upwind of spill/leak. Avoid contact with skin, eyes and clothing. Use personal protective equipment. Do not touch damaged containers or spilled material unless wearing appropriate protective clothing. Remove all sources of ignition. Avoid dust formation. Avoid breathing dust.
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### Precautions:

Good housekeeping practices are necessary for cleaning up areas where spills or leaks have occurred. Take measures to either eliminate or minimize the creation of dust. Respirable dust and silica levels should be monitored regularly.

Wherever possible, practices likely to generate dust should be controlled with engineering controls such as local exhaust ventilation, dust suppression with water and containment, enclosure or covers.

**Environmental precautions**

Prevent further leakage or spillage if safe to do so.

Prevent product from entering drains.

**Clean up methods**

Prevent entry into waterways, sewers, basements or confined areas.

A fine water spray should be used to suppress dust when sweeping (dry sweeping should not be attempted). Vacuuming, preferably with an industrial vacuum cleaner outfitted with a high-efficiency particulate (HEPA) filter, is preferred to sweeping. Waste may be disposed of by landfill in compliance with federal, state and local requirements.

In the event of an accidental release, observe all protection measures set out in this MSDS. Avoid using materials and products that are incompatible with the product.

**For containment**

Stop leak if you can do it without risk. Cover with plastic sheet to prevent spreading.

**SECTION 7. Handling and storage:****Additional hazards when processed**

Keep exposure to the product as low as reasonably possible. Respirable crystalline silica levels should not exceed those specified by OSHA and MSHA and identified in this MSDS. Exposure to respirable (fine) silica dust depends on a variety of factors, including activity rate, method of handling, environmental conditions (e.g. weather conditions, workstation orientation) and control measures used.

Wherever possible, practices likely to generate dust should be carried out in well-ventilated areas (e.g., outside).

**Precautions for safe handling**

Wear personal protective equipment. Avoid contact with skin, eyes and clothing. Keep away from heat and sources of ignition. Do not breathe dust. Do not ingest. Handle in accordance with good industrial hygiene and safety practice.

**Storage conditions**

Keep in closed, air-tight containers. Do not store in close proximity to acids. Keep away from reactive products. Do not store near food, beverages or smoking materials. Avoid spilling and creating dust. Maintain appropriate dust controls during handling.

# Microsilex



High-reactivity manufactured microsilica

**Calculated PEL, based on bulk sampling:** Taking the most conservative and protective approach, i.e. if the intermediate substances are regarded as equivalent to cristobalite and tridymite and if the proportions of the three silica forms as respirable dust in air were the same as that measured in total dust in the bulk samples, then the following three PELs would be calculated:

## SECTION 8. Exposure controls/personal protection:

Control parameters calculated:

Occupational exposure limits	TLV	PEL	PEL
Occupational exposure limits	$10 \text{ mg/m}^3 \div (9.7\% + 2) = \mathbf{0.85 \text{ mg/m}^3}$		
Components	PEL Cristobalite: $5 \text{ mg/m}^3 \div (58.6\% + 2) = \mathbf{0.082 \text{ mg/m}^3}$	PEL	PEL
	PEL Tridymite: $5 \text{ mg/m}^3 \div (5.2\% + 2) = \mathbf{0.69 \text{ mg/m}^3}$		
Crystalline Silica (Quartz) (respirable)	0.00059 gr/y <sup>3</sup> , 0.05 mg/ m <sup>3</sup>	<u>250</u> %SiO <sub>2</sub> +5	0.118 gr/y <sup>3</sup> , 10 mg/m <sup>3</sup> %SiO <sub>2</sub> +2
Cristobalite (respirable)	0.00059 gr/y <sup>3</sup> , 0.05 mg/ m <sup>3</sup>	<u>125</u> %SiO <sub>2</sub> +5	0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup> %SiO <sub>2</sub> +2
Tridymite (respirable)		<u>125</u> %SiO <sub>2</sub> +5	0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup> %SiO <sub>2</sub> +2
Aluminum Oxide (Total Dust) (Respirable)	0.118 gr/y <sup>3</sup> 10 mg/m <sup>3</sup> 0.035gr/y <sup>3</sup> , 3 mg/m <sup>3</sup>	50 15	0.179 gr/y <sup>3</sup> , 15mg/m <sup>3</sup> 0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup>
Iron Oxide (Total Dust) (Respirable)	0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup> 0.035gr/y <sup>3</sup> , 3 mg/m <sup>3</sup>	50 15	0.118 gr/y <sup>3</sup> , 10 mg/m <sup>3</sup> 0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup>
Calcium Oxide (Total Dust) (Respirable)	0.024gr/y <sup>3</sup> , 2 mg/m <sup>3</sup> 0.024gr/y <sup>3</sup> , 2 mg/m <sup>3</sup>	15 15	0.179 gr/y <sup>3</sup> , 15mg/m <sup>3</sup> 0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup>
Calcium Sulfate (Total Dust) (Respirable)	0.118 gr/y <sup>3</sup> 10 mg/m <sup>3</sup> 0.035gr/y <sup>3</sup> , 3 mg/m <sup>3</sup>	50 15	0.179 gr/y <sup>3</sup> , 15mg/m <sup>3</sup> 0.059 gr/y <sup>3</sup> , 5 mg/m <sup>3</sup>

**Calculated PEL, based on bulk sampling:** Taking the most conservative and protective approach, i.e. if the intermediate substances are regarded as equivalent to cristobalite and tridymite and if the proportions of the three silica forms as respirable dust in air were the same as that measured in total dust in the bulk samples, then the following three PELs would be calculated:

PEL Quartz:  $10 \text{ mg/m}^3 \div (9.7\% + 2) = \mathbf{0.85 \text{ mg/m}^3}$

PEL Cristobalite:  $5 \text{ mg/m}^3 \div (58.6\% + 2) = \mathbf{0.082 \text{ mg/m}^3}$

PEL Tridymite:  $5 \text{ mg/m}^3 \div (5.2\% + 2) = \mathbf{0.69 \text{ mg/m}^3}$

**Personal Protection:** When handling products that may generate silica dust: (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH, OSHA or MSHA approved respirator, and (3) Warn others in area.

Use and maintain respirators that conform to ANSI Standard (Z88.2) particulate respirators. Select respirators based on the level of exposure to crystalline silica as measured by dust sampling. Use respirators that offer protection to the highest concentrations of crystalline silica if the actual concentrations are unknown. Put in place a respiratory protection and monitoring program that complies with MSHA or OSHA (e.g. 29 CFR 1910.134) standards, which include provisions for a user training program, respirator repair and cleaning, respirator fit testing and other requirements. Comply with all other federal and state laws.



## SECTION 9. Physical and chemical properties:

<b>Appearance</b>	Dry, fine, white powder		
<b>Odor</b>	Odorless	<b>Burning rate</b>	Not available
<b>Odor threshold</b>	Not available	<b>Vapor density</b>	Not applicable
<b>PH</b>	6-7 (in water)	<b>Solubility</b>	Not available
<b>Melting point</b>	Not available	<b>Solubility in water</b>	Not available
<b>Vapor pressure</b>	Not applicable	<b>Auto-ignition Temperature</b>	Not applicable
<b>Flash point</b>	Not flammable/ Not combustible	<b>Decomposition temperature</b>	Not applicable
<b>Relative density</b>	Not available	<b>Evaporation rate</b>	Not applicable
<b>Partition coefficient: n-octanol/water</b>	Not applicable	<b>Boiling point</b>	Not applicable
<b>Burning time</b>	Not available	<b>Flammability (solid/gas)</b>	Not applicable

## SECTION 10. Stability and reactivity:

- Reactivity:** Crystalline silica is stable under ordinary conditions.
- Chemical stability:** Material is stable under normal conditions.
- Possibility of hazardous reactions:**  
Under normal conditions of storage and use, hazardous reactions will not occur.
- Conditions to avoid:** Exposure to airflow. Exposure to extreme heat. Avoid dust formation. Incompatible materials.
- Incompatible materials:** Hydrofluoric acid will dissolve silica and can generate silicon tetrafluoride, a corrosive gas. Contact with strong oxidizing agents such as fluorine, boron trifluoride, chlorine trifluoride, manganese trifluoride or oxygen difluoride may cause fires and/or explosions.
- Hazardous decomposition products:**  
No information available.

## SECTION 11. Toxicological information:

### Information on toxicological effects

Acute toxicity:

- Skin Contact:** May cause skin irritation and allergy like symptoms.
- Inhalation:** May irritate respiratory system.
- Eye Contact:** Severe eye irritation.
- Skin Contact:** Symptoms may vary, skin irritation, pain, watery eyes, redness, swelling and bleared vision.
- Ingestion:** Harmful if swallowed. May cause digestive (gastrointestinal) tract irritation.  
Ingestion may cause nausea, vomiting. May affect the cardiovascular system (hypotension). May cause fainting.
- Aspiration hazard** No information available.

### Delayed and immediate effects as well as chronic effects from short and long-term exposure

Repeated and prolonged overexposures to product or dust containing crystalline silica can cause silicosis (scarring of the lung) and increase the risk of bronchitis, tuberculosis, lung cancer, renal disease and scleroderma (a disease affecting the connective tissue of the skin, joints, blood vessels and internal organs). Studies have shown cigarette smoking increases the risk of silicosis, bronchitis, and lung cancer in persons also exposed to crystalline silica. Acute silicosis is a rapidly progressive, incurable lung disease that is typically fatal. Symptoms include, but are not limited to: shortness of breath, cough, fever, weight loss and chest pain. Such exposure may cause pneumoconiosis and pulmonary fibrosis.

## SECTION 12. Ecological information:

<b>Persistence and degradability:</b>	No information available.
<b>Bioaccumulative potential:</b>	No information available.
<b>Mobility in soil:</b>	No information available.
<b>Other adverse effects:</b>	No information available.

## SECTION 13. Disposal considerations:

**Disposal methods:** The generation of waste should be avoided or minimized wherever possible. Waste must be disposed of in accordance with Federal, State and Local regulations



## SECTION 14. Transport information:

	<b>DOT Classification</b>	<b>IMDG</b>	<b>IATA</b>
<b>UN number</b>	Not regulated.	Not regulated.	Not regulated.
<b>UN proper shipping name</b>	-	-	-
<b>Transport hazard class(es)</b>	-	-	-
<b>Packing group</b>	-	-	-
<b>Environmental hazards</b>	None	None	None
<b>Additional information</b>	-	-	-

**Special precautions for user:** Transport within user's premises: always transport in closed containers that are upright and secure. Ensure that persons transporting the product know what to do in the event of an accident or spillage.

**Transport in bulk according to Annex II of MARPOL 73/78 and the IBC code:** Not available.

In accordance with DOT: Not a dangerous good as defined in transport regulations

## SECTION 15. Regulatory information:

**US Federal Regulations:** Not regulated

**US State Regulations:** Not regulated

**International regulations:** Not regulated



## SECTION 16. Other information:

### History

**Date of issue:** 10/04/2019

**Version:**

**Revised Section(s):**

### Notice to reader

While the information provided in this safety data sheet is believed to provide a useful summary of the hazards of versabind as it is commonly used, the sheet cannot anticipate and provide all of the information that might be needed in every situation. Inexperienced product users should obtain proper training before using this product. In particular, the data furnished in this sheet do not address hazards that may be posed by other materials mixed with versabind to produce cement products. Users should review other relevant material safety data sheets before working with this versabind or working on cement products.

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## WARNING

### AVOID BREATHING SILICA DUST

Product contains silica. Inhalation of respirable silica dust can cause silicosis, a potentially disabling lung disease, and is known to the State of California to cause lung cancer. When handling: (1) Work outdoors where feasible, otherwise use mechanical ventilation, (2) Wear a dust mask or, if dust may exceed PEL, use NIOSH approved respirator, (3) Warn others in the area. For further information, refer to I NIOSH ([www.niosh.gov](http://www.niosh.gov) and [www.OSHA.gov](http://www.OSHA.gov)).

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