



SEMCO Brick

SECTION 1. IDENTIFICATION

Product Identifier	SEMCO Brick
Other Means of Identification	Clay Fired Ceramic
Product Family	Silica brick
Recommended Use	Used in the construction of corrosion-resistant linings.
Restrictions on Use	None known.
Manufacturer/Supplier Identifier	The Stebbins Engineering and Manufacturing Company, 363 Eastern Boulevard, Watertown, NY, 13601, (315) 782-3000, www.stebbinseng.com
Emergency Phone No.	Chemtrec - Within North America, 1-800-424-9300, 24 hours Stebbins 24 Hour Contact-, 1-315-788-6624
SDS No.	029

SECTION 2. HAZARD IDENTIFICATION

Classification

Acute toxicity (Inhalation) - Category 5; Eye irritation - Category 2B; Carcinogenicity - Category 1A; Specific target organ toxicity (single exposure) - Category 3; Specific target organ toxicity (repeated exposure) - Category 2

Label Elements



Hazards refer to dust generated from product by cutting, sanding, or grinding.

Signal Word:
Danger

Hazard Statement(s):

H320	Causes eye irritation.
H333	May be harmful if inhaled.
H335	May cause respiratory irritation.
H350	May cause cancer if inhaled.
H373	May cause damage to organs (respiratory system) through prolonged or repeated exposure if inhaled.

Precautionary Statement(s):

P260	Do not breathe dust.
P264	Wash hands thoroughly after handling.
P271	Use only outdoors or in a well-ventilated area.
P304 + P340	IF INHALED: Remove person to fresh air and keep comfortable for breathing.

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P304 + P312 IF INHALED: Call a POISON CENTRE or doctor if you feel unwell.

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

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

P501 Dispose of contents and container in accordance with local, regional, national and international regulations.

SECTION 3. COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	CAS No.	%	Other Identifiers	Other Names
Silica, quartz	14808-60-7	45 - 70%	Silicon dioxide	
Aluminum oxide	1344-28-1	15 - 40%	Alumina	
Iron oxide	1332-37-2	1 - 5%	Pigment red	
Potassium oxide	12030-88-5	1 - 5%	Metal oxide	
Titanium dioxide	13463-67-7	0.5 - 1.5%	Pigment white	
Magnesium oxide	1309-48-4	0.1 - 1%	Metal oxide	

Notes

Silica in this product is not normally in respirable form. However, cutting and grinding of this brick is expected in the course of normal usage, which will release respirable silica dust. Thus, appropriate precautions must be taken during such operations, and will be noted on this safety data sheet.

SECTION 4. FIRST-AID MEASURES

First-aid Measures

Inhalation

Move to fresh air. Get medical advice or attention if you feel unwell or are concerned.

Skin Contact

Wash gently and thoroughly with lukewarm, gently flowing water and mild soap for 5 minutes.

Eye Contact

Rinse the contaminated eye(s) with lukewarm, gently flowing water for 5 minutes, while holding the eyelid(s) open. Remove contact lenses, if present and easy to do. If eye irritation persists, get medical advice or attention.

Ingestion

Give large quantities of water to drink. Get medical advice or attention if you feel unwell or are concerned.

Most Important Symptoms and Effects, Acute and Delayed

If inhaled: can irritate the nose and throat.

If inhaled: at high concentrations can cause lung injury.

If in eyes: may cause slight irritation as a "foreign object". Tearing, blinking and mild temporary pain may occur as particles are rinsed from the eye by tears.

Immediate Medical Attention and Special Treatment

Target Organs

Eyes, respiratory system.

Special Instructions

Symptoms of pulmonary edema can be delayed up to 48 hours after exposure.

Medical Conditions Aggravated by Exposure

Respiratory conditions, eye conditions.

SECTION 5. FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media

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Not combustible. Use extinguishing agent suitable for surrounding fire.

Specific Hazards Arising from the Product

Does not burn.

Not known to generate any hazardous decomposition products in a fire.

Special Protective Equipment and Precautions for Fire-fighters

No special precautions are necessary.

Fire-fighters may enter the area if positive pressure SCBA and full Bunker Gear is worn.

SECTION 6. ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment, and Emergency Procedures

If dust is generated, avoid breathing dust.

Environmental Precautions

No special precautions are necessary. It is good practice to prevent releases into the environment.

Methods and Materials for Containment and Cleaning Up

Avoid generating dust.

SECTION 7. HANDLING AND STORAGE

Precautions for Safe Handling

If dust is generated: avoid breathing in this product. Do not get in eyes.

Conditions for Safe Storage

Store in an area that is: dry.

SECTION 8. EXPOSURE CONTROLS/PERSONAL PROTECTION

The limits for Silica are as follows, but as this product is a solid, the silica is only expected to be respirable during cutting, sanding, or grinding operations. If the product is cut, ground, sanded, or otherwise worked in a fashion that generates dust, appropriate PPE should be worn and these limits should be observed.

OSHA PEL: TWA: 30 mg/m³ / (%SiO₂ + 2) (total dust)

OSHA PEL: TWA: 10 mg/m³ / (%SiO₂ + 2) (respirable fraction)

ACGIH TLV: TWA: 0.025 mg/m³ respirable mass

ACGIH® = American Conference of Governmental Industrial Hygienists. TLV® = Threshold Limit Value. TWA = Time-Weighted Average. OSHA = US Occupational Safety and Health Administration.

Appropriate Engineering Controls

Provide eyewash in work area, if contact or splash hazard exists. The hazard potential of this product is relatively low. General ventilation is usually adequate. If dust is generated: use local exhaust ventilation and enclosure, if necessary, to control amount in the air.

Individual Protection Measures

Eye/Face Protection

Wear approved safety glasses.

Skin Protection

Not required.

Respiratory Protection

If dust is generated: wear a NIOSH approved air-purifying respirator with N100, R100, or P100 filter(s).

SECTION 9. PHYSICAL AND CHEMICAL PROPERTIES

Basic Physical and Chemical Properties

Appearance Light yellow - brown. Particle Size: Not applicable

Odour Odourless

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Odour Threshold	Not applicable
pH	Not applicable
Melting Point/Freezing Point	2930 °F (1610 °C) (Silica, quartz) (melting)
Boiling point/Initial boiling point	4046 °F (2230 °C) (Silica, quartz)
Flash Point	Not applicable
Evaporation Rate	Not applicable
Flammability (solid, gas)	Will not burn.
Upper/Lower Flammability or Explosive Limit	Not applicable (upper); Not applicable (lower)
Vapour Pressure	Not applicable
Vapour Density (air = 1)	Not applicable
Relative Density (water = 1)	2.35
Solubility	Insoluble in water; Not applicable (in other liquids)
Partition Coefficient, n-Octanol/Water (Log Kow)	Not applicable
Auto-ignition Temperature	Not applicable
Decomposition Temperature	Not available
Viscosity	Not applicable (kinematic); Not applicable (dynamic)
Other Information	
Physical State	Solid

SECTION 10. STABILITY AND REACTIVITY

Reactivity

None known.

Chemical Stability

Normally stable.

Possibility of Hazardous Reactions

None known.

Conditions to Avoid

Product contains silica. Contact with hydrofluoric acid may degrade product.

Incompatible Materials

Product contains silica. Contact with hydrofluoric acid may degrade product.

Hazardous Decomposition Products

None known.

SECTION 11. TOXICOLOGICAL INFORMATION

Likely Routes of Exposure

Inhalation.

Acute Toxicity

LC50 (Inhalation)

If this product is cut, ground, or sanded, respirable silica dust will be given off. The acute effects of exposure are most often mild, though coughing or irritation of the nose, eyes, or throat may result in some cases. It is important to note that if exposed to a high concentration of respirable dust, lung injury may result and the symptoms and effects may be delayed.

Serious Eye Damage/Irritation

If dust is generated by cutting, sanding, or grinding, the dust may be irritating to the eyes.

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STOT (Specific Target Organ Toxicity) - Single Exposure

Inhalation

If dust is generated by cutting, sanding, or grinding: may cause nose and throat irritation. At high concentrations may cause lung injury.

Skin Absorption

Not harmful.

Ingestion

Not harmful.

Aspiration Hazard

Not known to be an aspiration hazard.

STOT (Specific Target Organ Toxicity) - Repeated Exposure

If dust is generated by cutting, sanding, or grinding: if inhaled: may cause irritation of the respiratory system. May cause respiratory tract injury.

Respiratory and/or Skin Sensitization

Not known to be a respiratory sensitizer. Not known to be a skin sensitizer.

Carcinogenicity

If dust is generated by cutting, sanding, or grinding: IARC: Group 1 – Carcinogenic to humans. ACGIH®: A2 – Suspected human carcinogen. NTP: Known human carcinogen.

Key to Abbreviations

ACGIH® = American Conference of Governmental Industrial Hygienists. IARC = International Agency for Research on Cancer. NTP = National Toxicology Program.

Reproductive Toxicity

Development of Offspring

Not known to harm the unborn child.

Sexual Function and Fertility

Not known to cause effects on sexual function or fertility.

Effects on or via Lactation

Not known to cause effects on or via lactation.

Germ Cell Mutagenicity

Not known to be a mutagen.

SECTION 12. ECOLOGICAL INFORMATION

Ecotoxicity

No information was located.

Persistence and Degradability

No information was located.

Bioaccumulative Potential

No information was located.

Mobility in Soil

No information was located.

Other Adverse Effects

There is no information available.

SECTION 13. DISPOSAL CONSIDERATIONS

Disposal Methods

Bury in a licensed landfill according to federal, provincial/state, and local regulations.

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SECTION 14. TRANSPORT INFORMATION

This section is not required by WHMIS 2015. This section is not required by OSHA HCS 2012.

Not regulated under Canadian TDG regulations. Not regulated under US DOT Regulations. Not regulated under IATA Regulations.

Regulation	UN No.	Proper Shipping Name	Transport Hazard Class(es)	Packing Group
US DOT		Non-Regulated		
IATA (Air)		Non-Regulated		
IMO (Marine)		Non-Regulated		
Canadian TDG		Non-Regulated		

Environmental Hazards Not applicable

Special Precautions Not applicable

Transport in Bulk according to International Maritime Organization Instruments

Not applicable

SECTION 15. REGULATORY INFORMATION

Safety, Health and Environmental Regulations

Canada

Domestic Substances List (DSL) / Non-Domestic Substances List (NDSL)

All ingredients are listed on the DSL or are not required to be listed.

CEPA - National Pollutant Release Inventory (NPRI)

Not specifically listed.

USA

Toxic Substances Control Act (TSCA) Section 8(b)

All ingredients are on the TSCA Inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.

SECTION 16. OTHER INFORMATION

NFPA Rating **Health - 1** **Flammability - 0** **Instability - 0**

Based on Silica, quartz

SDS Prepared By B.E.R

Phone No. (315) 782-3000

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Revision Indicators Revision 5 reviewed and approved

Key to Abbreviations ACGIH® = American Conference of Governmental Industrial Hygienists

HSDB® = Hazardous Substances Data Bank

IARC = International Agency for Research on Cancer

NFPA = National Fire Protection Association NIOSH = National Institute for Occupational Safety and Health

NTP = National Toxicology Program

OSHA = US Occupational Safety and Health Administration

RTECS® = Registry of Toxic Effects of Chemical Substances

References CHEMINFO database. Canadian Centre for Occupational Health and Safety (CCOHS).

HSDB® database. US National Library of Medicine. Available from Canadian Centre for Occupational Health and Safety (CCOHS). NIOSH Pocket Guide database. National Institute for Occupational Safety and Health. Available from Canadian Centre for Occupational Health

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and Safety (CCOHS). Registry of Toxic Effects of Chemical Substances (RTECS®) database. Dassault Systèmes/BIOVIA ("BIOVIA"). Available from Canadian Centre for Occupational Health and Safety (CCOHS).

Disclaimer

NOTE: The information contained herein is, to the best of our knowledge, accurate and reliable. However, no warranty is expressed or implied regarding the accuracy of this information, or the results to be obtained from the use thereof.

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