

**Section 1: Identification**

<b>Product Identifier</b>	<b>Formglas® GFRC-L</b>
<b>Other means of identification</b>	
<b>Synonyms</b>	Glass Fiber Reinforced Concrete, GFRC
<b>SDS#</b>	GFRC-L
<b>Recommended Use</b>	Architectural building products
<b>Recommended Restrictions</b>	Not for use as load bearing components
<b>Manufacturer Information</b>	Formglas Products Ltd. 181 Regina Road Vaughan, ON Canada L4L 8M3 Tel: 866.635.8030
<b>Emergency telephone number</b>	Chemtrec – Emergency 800.424.9300 (Customer # 851813)

**Section 2: Hazard identification**

<b>Classification of the Substance or Mixture</b>	GFRC-L Glass Fiber Reinforced Concrete is a mixture of ingredients molded into a solid manufactured “article” and not hazardous in its solid form. However, exposure to dust from cutting, grinding or otherwise altering these articles may irritate the eyes, skin, nose, throat or respiratory tract. Hazards listed are associated with individual ingredients used in the manufacture of these articles. See Sections 8 and 11 for information concerning exposure and personal protection.	
<b>Physical Hazards</b>	Not classified	
<b>Health Hazards</b>	Serious eye damage / eye irritation	Category 2B
<b>Environmental Hazards</b>	Not Classified	
<b>Label Elements</b>		
<b>Symbol</b>	None	
<b>Signal Word</b>	None	
<b>Hazard statement</b>	None	
<b>Precautionary statements</b>		
<b>Prevention</b>	Wear protective gloves, eye and face protection, respiratory protection.	
<b>Response</b>	IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. If eye irritation persists: Get medical attention. IF SWALLOWED: Rinse mouth. Call a doctor if you feel unwell.	
<b>Hazards not otherwise classified</b>	Exposure to dust from cutting, grinding or otherwise altering these manufactured articles may irritate the respiratory tract. Wear respiratory protection. See Section 8: Exposure controls/personal protection.	

**Section 3: Composition/information on ingredients**

Mixture		
Chemical name(s)	CAS#	Concentration (% wt.)
White Portland Cement – Calcium salts as listed		46.9
3CaO.SiO <sub>2</sub>	12168-85-3	
2CaO.SiO <sub>2</sub>	10034-77-2	

3CaO.Al <sub>2</sub> O <sub>3</sub>	12042-78-3	
4CaO.Al <sub>2</sub> O <sub>3</sub> .Fe <sub>2</sub> O <sub>3</sub>	12068-35-8	
CaSO <sub>4</sub> .2H <sub>2</sub> O	13397-24-5	
Sand, crystalline silica*	14808-60-7	42.1
Acrylic polymer	n/a	6.4
Glass fiber	65997-17-3	4.0
Binder	919-30-2	0.4
Color pigments	13463-67-7	0.2 – 1.7
	57455-37-5	
	1317-61-9	
	1308-38-9	
Steel (reinforcement, if required)	Not Assigned	0 – 5.0

Note: \* The weight percent listed is for total silica and not the respirable fraction. All silica ingredients have been bonded into these manufactured articles and are not respirable as provided. Cutting, grinding or otherwise altering these manufactured articles may produce respirable crystalline silica dust. See Section 8 for exposure details. The weight percent of the steel reinforcement, if any, could vary depending on structural or attachment requirements.

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### **Section 4: First-aid measures**

<b>Inhalation</b>	Particles or dust may cause irritation. Remove person to fresh air. Have affected person blow nose or use soft tissues to remove particles or residues from nostrils. If symptoms persist, get medical attention.
<b>Skin contact</b>	For skin contact or irritation, wash immediately and thoroughly with soap and water. Get medical attention if irritation develops or persists. For minor cuts or abrasions, rinse away debris with water, clean with soap and water, disinfect and bandage. Get medical attention as circumstances dictate.
<b>Eye contact</b>	For dust in the eyes, flush eyes immediately and thoroughly with plenty of water, also under the eyelids, for at least 15 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Get medical attention if irritation persists or for eye abrasions.
<b>Ingestion</b>	Rinse mouth with water immediately. Do not induce vomiting without medical advice. If symptoms persist, get medical attention.
<b>Most important symptoms/ effects, acute and delayed</b>	Eye irritation. Exposed individuals may experience eye tearing, redness and discomfort. Inhalation may cause respiratory tract irritation. Symptoms may be delayed.

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### **Section 5: Fire-fighting measures**

<b>Suitable extinguishing media</b>	Use water or other extinguishing measures that are appropriate to the local circumstances and environment. There is no unsuitable extinguishing media known.
<b>Specific hazards arising from the chemical</b>	During a fire, toxic gases and particulates (such as oxides of sulfur) may be released by the decomposition of calcium sulfate. No unusual fire or explosion hazards noted.
<b>Special protective actions for fire-fighters</b>	Fire-fighters should use standard fire-fighting procedures appropriate for the local circumstances and environment.

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### **Section 6: Accidental release measures**

<b>Personal precautions, protective equipment and emergency procedures</b>	These solid manufactured articles do not represent a spill, leak or release hazard. Avoid actions that cause dust from damaged articles from becoming airborne. Avoid inhalation of dust. Wear gloves and other personal protective equipment. Refer to Section 8: Exposure controls/personal protection.
<b>Environmental precautions</b>	Avoid discharge into drains, sewers and other waterways.
<b>Methods and materials for</b>	Follow federal, state or provincial, and/or local regulations for solid waste

containment and cleaning up disposal.

## Section 7: Handling and storage

**Precautions for safe handling** These manufactured articles can be heavy and awkward to lift and install posing risks such as sprains to the back, arms and legs. Use proper lifting and handling techniques. Wear clean gloves to protect hands from rough edges and glass fibers.

**Conditions for safe storage, including incompatibilities** Protect products from weather and store indoors in a cool, dry, ventilated area away from moisture. Incompatible with: acids, phosphorus, diazomethane, and aluminum (at high temperatures).

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## Section 8: Exposure controls/personal protection

### Control parameters

Occupational exposure limits

Chemical name(s)	CAS#	ACGIH - TLV (mg/m3)	OSHA (mg/m3)
White portland cement	65997-15-1	1	10 (T) / 5 (R) PEL
Sand, crystalline silica,	14808-60-7	0.025	4.3(T) / 3.3 (R) TWA
Acrylic polymer	n/a	5	10 (T)
Glass fiber	65997-17-3	10	15 (T) / 5 (R) PEL
Binder	919-30-2	n/a	n/a
Color pigments	13463-67-7	10	15 (T) / 5 (R) PEL
	57455-37-5	n/a	10 (T) / 3 (R)
	1317-61-9	10	15 (T) / 5 (R)
	1308-38-9	10	15 (T) / 5 (R) PEL
Steel (reinforcement, if required)	Not Assigned	0.5	15 (T) / 5 (R) PEL

OSHA - Occupational Health and Safety Administration; PEL – Permissible Exposure limit

TWA – Time Weighted Average; (T) – Total dust; (R) - Respirable fraction

ACGIH – American Conference of Governmental Hygienists; TLV – Threshold Limit Value

Note: These manufactured articles contain crystalline silica but not in a respirable form. Cutting, grinding or similar alterations to these articles that produce dust may contain respirable crystalline silica dust which is a known lung carcinogen, and is listed in California Proposition 65 as being known to cause cancer. Take precautions to prevent and/or control dust levels, if any, to within approved limits.

### Appropriate engineering controls

Normal handling and use of the manufactured articles as supplied do not create a risk of exposure beyond personal exposure limits. If cutting, grinding or other modifications are made to the manufactured articles that generate dust, take precautions to keep dust levels below permissible exposure limits through the use of portable dust collectors and/or ventilation, as needed. If necessary, use a process enclosure with adequate ventilation to contain, extract and/or collect dust.

### Individual protection measures, such as personal protection equipment

**Respiratory Protection** When dust is present wear a NIOSH approved respirator that is properly fitted.

**Eye/face protection** Wear appropriate safety glasses, goggles or face shields as the nature of the work dictates.

**Skin Protection** Wear clean gloves when handling parts. Wear protective clothing to prevent repeated or prolonged skin contact. Remove clothing and protective equipment that becomes dusty and clean before reusing.

**Hygiene Measures** Handle in accordance with good industrial hygiene and safety practices.

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## Section 9: Physical and chemical properties

Appearance: Solid; range of colors

Odour: Little or none

Odour threshold: Not applicable

Explosive limits: Not applicable

Vapour pressure: Not applicable

Vapour density: Not applicable

pH: Not applicable  
Melting point: Not applicable  
Freezing point: Not applicable  
Initial boiling point: Not applicable  
Flash point: Not applicable  
Evaporation rate: Not applicable  
Flammability: Noncombustible

Relative Density: 6.5-7.5 lb/ft<sup>3</sup> (32-37 kg/m<sup>3</sup>)  
Solubility: Not applicable  
Partition coefficient: Not applicable  
Auto-ignition temperature: Not applicable  
Decomposition temperature: Not available  
Viscosity: Not applicable

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### **Section 10: Stability and reactivity**

<b>Reactivity</b>	Not available
<b>Chemical stability</b>	Stable at normal conditions
<b>Possibility of hazardous Reactions</b>	No dangerous reaction known under normal conditions of use.
<b>Conditions to avoid</b>	Incompatibilities – see below.
<b>Incompatible materials</b>	Some ingredients have incompatibilities. Silica sand dissolves in hydrofluoric acid producing corrosive silicon tetrafluoride gas. Silicates also react with powerful oxidizers such as fluorine and chlorine trifluoride. Iron Oxide pigments are incompatible with hydrazine, calcium hypochlorite, performic acid and bromine pentafluoride.
<b>Hazardous decomposition Products</b>	Toxic gases and particulates, calcium oxides, sulfur dioxides.

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### **Section 11: Toxicological information**

<b>Acute</b>	Exposure to dust may cause irritation to the eyes, skin and respiratory tract.
<b>Skin corrosion/irritation</b>	Dust in contact with skin can cause irritation or dry skin
<b>Serious eye damage/eye Irritation</b>	Dust in the eyes will cause eye irritation
<b>Skin sensitization</b>	Not classified
<b>Respiratory sensitization</b>	Not classified
<b>Germ cell mutagenicity</b>	Not classified
<b>Carcinogenicity</b>	Not expected to be hazardous by OSHA criteria

Note: Exposure to airborne respirable crystalline silica dust is listed by IARC, NTP and California Proposition 65 as a lung carcinogen known to cause cancer. Prolonged exposure to respirable crystalline silica has been known to cause silicosis, a lung disease. While there may be a factor of individual susceptibility to a given exposure to respirable silica dust, the risk of contracting silicosis and the severity of the disease is clearly related to the amount exposure and the length of time (usually years) of exposure.

IARC Monographs. Overall Evaluation of Carcinogenicity  
Crystalline Silica (Quartz) CAS# 14808-60-7 1 (Carcinogenic to humans)

<b>Reproductive toxicity</b>	Not classified
<b>STOT single exposure</b>	Not classified
<b>STOT repeated exposure</b>	Not classified
<b>Aspiration hazard</b>	Not classified
<b>Chronic effects</b>	Not hazardous under normal conditions of use

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### **Section 12: Ecological information**

These solid manufactured articles do not represent a spill, leak or accidental release hazard and not known to produce an adverse effect on ecology.

<b>Toxicity</b>	No data available
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<b>Persistence and degradability</b>	No data available
<b>Mobility in soil</b>	No data available
<b>Other adverse effects</b>	Not expected to produce an adverse effect on ecology

### **Section 13: Disposal considerations**

<b>Disposal methods</b>	For the safety of persons conducting disposal, recycling or reclamation activities, please refer to Section 8: Exposure controls/personal protection. Treat these materials as solid waste. Do not dispose of in sewers, drainage systems or waterways. Dispose of material in accordance with federal, state or provincial, and local regulations.
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### **Section 14: Transport information**

<b>DOT</b>	Not regulated as dangerous goods
<b>IATA</b>	Not regulated as dangerous goods
<b>IMDG</b>	Not regulated as dangerous goods
<b>TDG</b>	Not regulated as dangerous goods
<b>Transport in bulk according to Annex II of Marpol 73/78 and the IBC code</b>	Not applicable

### **Section 15: Regulatory information**

The items that are the subject of this Safety Data Sheet fall within the scope of the definition of “manufactured articles” by United States and Canadian regulations concerning hazardous materials. The information provided pertains to the individual ingredients used to make these manufactured articles.

These manufactured articles are not subject to the Montreal protocol, Stockholm convention or the Rotterdam convention.

#### **US California proposition 65**

Note: Silica, crystalline (airborne particles of a respirable size) is listed as a chemical known to the state of California to cause cancer. The manufactured articles that are the subject of this SDS may contain crystalline silica but not in a respirable form. Performing cutting, grinding or other operations that create dust could produce airborne particles of respirable size. See Section 8: Exposure controls/personal protection

### **Section 16: Other information**

<b>HMIS Ratings</b>	Health: 1; Flammability: 0; Physical hazard: 0 Personal Protection: E
<b>NFPA Ratings</b>	Health: 1; Fire: 0; Reactivity: 0
<b>HMIS/NFPA hazard legend</b>	0 = Minimal; 1 = Slight; 2 = Moderate; 3 = Serious; 4 = Severe E = Safety glasses, gloves and dust respirator

#### **Abbreviations legend**

HMIS - Hazardous Materials Identification System	NFPA - National Fire Protection Association
CAS - Chemical Abstracts Service	DOT - Department of Transportation (US)
IARC - International Agency for Research on cancer	OSHA - Occupational Health and Safety Administration
NTP-- National Toxicology Program	TDG – Transportation of Dangerous Goods (Cdn.)
NIOSH - National Institute of Occupational Safety and Health	

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#### **Disclaimer**

The information provided in this Safety Data Sheet is correct to the best of our knowledge as of the date issued and is typical of the articles manufactured. Some variations could be expected with custom made articles due to part size and its structural requirements, finish and support embedments etc. The information given is provided as a guideline for safe handling, use, storage, transportation, disposal and not to be considered a warranty or quality specification. The user assumes full responsibility for applying the appropriate safety measures when these products are used.

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