

**SECTION 1  
CHEMICAL PRODUCT AND IDENTIFICATION**

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PRODUCT(S) | Formglas® FRP; molded Fiberglass Reinforced Plastics.

COMMON NAME / CHEMICAL FAMILY | Fiberglass Reinforced Plastic / Polymerized Thermoset Polyesters

SYNONYMS | GFRP; Glass Fiber Reinforced Plastic

**SECTION 2  
HAZARD IDENTIFICATION**

**EMERGENCY OVERVIEW:**

These products are sold as “manufactured articles” and do not represent a hazard under normal use - see Section 15, Regulatory Information. Hazards listed are associated with modifications made to the manufactured articles. Exposure to dust from cutting, grinding or otherwise altering these products may irritate the skin, eyes, nose, throat or upper respiratory tract.

**POTENTIAL HEALTH EFFECTS**

Eye Contact	Eye contact with airborne dust may cause immediate or delayed irritation or inflammation. Eye exposure may require immediate first aid treatment and medical attention to prevent damage to the eye.
Inhalation	Breathing dust generated from machining this product or handling may cause nose, throat or lung irritation including coughing or choking depending on the degree of exposure.
Skin Contact	Skin contact with dust or glass fibers may cause irritation, dry skin, or abrasion.
Ingestion	Unlikely occurrence but may cause irritation.

**SECTION 3  
COMPOSITION, INFORMATION ON INGREDIENTS**

MATERIAL	WT. %	CAS #
Cured Polyester Resin	50 - 57	
Alumina Trihydrate	20 - 23	21645-51-2
Glass Fiber	20 - 30	65997-17-3

**SECTION 4  
FIRST AID MEASURES**

**FIRST AID MEASURES**

Eye Contact	Flush eyes thoroughly with water for at least 15 minutes, including under eye lids, to remove all particles. Seek medical attention for abrasions.
Inhalation	Move person to fresh air. Seek medical attention for discomfort or if coughing or other symptoms do not subside.
Skin Contact	Remove contaminated clothing. Wash with mild soap and water.
Ingestion	Seek medical attention.

**SECTION 5  
FIRE FIGHTING MEASURES**

General Fire Hazards	Class 1 (or A) material. ASTM E84 Flame Spread=25: Smoke Developmt.=450
Extinguishing Media	Water, CO <sub>2</sub> , dry chemical - use media most appropriate for fire condition.
Unusual Fire/Explosion Hazards	High concentrations of dust represent a potential fire or explosion hazard.
Hazardous Combustion Products	Carbon monoxide; carbon dioxide; smoke.
Flashpoint & Method	N/A
Fire Fighting Procedures	Use self contained breathing apparatus for large scale fires.

**SECTION 6  
ACCIDENTAL RELEASE MEASURES**

General	These solid molded articles do not represent a spill hazard. Avoid actions that cause dust to be generated from articles from becoming airborne. Avoid inhalation of dust. Wear appropriate protective equipment as described in Section 8.
Waste Disposal	Follow federal, state or provincial, and local regulations for solid waste materials disposal. This material is not classified as hazardous waste material and depending on applicable regulations can be considered common industrial waste.

**SECTION 7  
HANDLING AND STORAGE**

Handling	Large molded articles may be heavy and awkward to lift and install posing risks such as sprains and strains to the back, arms and legs. Use proper lifting and handling techniques. If cutting and grinding or similar operations are required, minimize dust generation and accumulation. Avoid breathing dust. Wear appropriate protective equipment, see Section 8. Use good safety and industrial hygiene practices.
Storage	Store away from heat, open flame, other ignition sources and incompatible materials. See Section 10.

**SECTION 8**  
**EXPOSURE CONTROLS / PERSONAL PROTECTION**

MATERIAL	WT. %	OSHA -PEL (mg/m <sup>3</sup> )
Cured Polyester Resin	50 - 57	15(T) / 5(R)
Alumina Trihydrate	20 - 23	15(T) / 5(R)
Glass Fiber	20 - 30	15(T) / 5(R)
Particulate otherwise not regulated or established	-	15(T) / 5(R)

OSHA-PEL Occupational Health and Safety Administration - Permissible Exposure Limit  
(T)-Total; (R) Respirable

<b>Engineering Controls</b>	If modifications to molded FRP articles generate dust, provide ventilation to keep dust levels below permissible exposure limits. When general ventilation is inadequate, use process enclosures, local exhaust ventilation, or other engineering controls to keep dust levels below permissible exposure limits.
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**Personal Protection Equipment (PPE)**

General	Selection of Personal Protection Equipment will depend on operations and environmental working conditions.
Respiratory Protection	For dust generated by cutting, drilling, grinding wear a NIOSH approved respirator that is properly fitted when exposed to dust levels above exposure limits.
Eye / Face Protection	Wear safety glasses, goggles or face shields to avoid contact with dust or larger particles.
Skin Protection	Wear gloves and protective clothing to prevent repeated or prolonged contact with dust. Remove clothing and protective equipment that becomes dusty and launder separately before reusing.

**SECTION 9**  
**PHYSICAL AND CHEMICAL PROPERTIES**

Physical State	Solid articles	Specific Gravity	1.6 - 1.8
Appearance	Range of colors	Bulk Density	1.75 - 2.25 lbs./ft. <sup>2</sup>
Odor	Low to no odor	Particle Size	Varies
Melting Point	Not Applicable	Solubility in water	Insoluble
Freezing Point	Not Applicable	Evaporation rate	Not Applicable
Boiling point	Not Applicable	Vapor Density	Not Applicable
Flash Point	Not Applicable	Vapor Pressure	Not Applicable

**SECTION 10**  
**CHEMICAL STABILITY AND REACTIVITY**

Stability	Stable
Conditions to Avoid	Contact with incompatibles (see below).
Incompatibility	Some ingredients have incompatibilities. Avoid contact with alkali, acids and other oxidizers.
Hazardous Polymerization	Will not occur
Hazardous Decomposition	Under fire will produce carbon monoxide, carbon dioxide.

**SECTION 11**  
**TOXICOLOGICAL INFORMATION**

Acute Effects	Exposure to dust may cause irritation to the eyes, skin and respiratory tract.
Chronic Effects / Carcinogenicity	Exposure to dust from cutting, drilling, grinding etc. may cause irritation to the eyes, skin and respiratory tract.

**SECTION 12**  
**ECOLOGICAL INFORMATION**

Environmental Toxicity	This product has no known adverse effect on ecology.
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**SECTION 13**  
**DISPOSAL CONSIDERATIONS**

Waste Disposal Method	This material is not classified as hazardous waste material and depending on applicable regulations can be considered common industrial waste and as such can be buried in landfills approved for these categories. Dispose of material in accordance with federal, state or provincial, and local regulations.
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**SECTION 14**  
**TRANSPORTATION INFORMATION**

This product is not classified as a Hazardous Material under U.S. DOT or Canadian TDG regulations.	
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**SECTION 15**  
**REGULATORY INFORMATION**

Many countries have legislation that requires chemical producers or suppliers to prepare MSDSs. In Canada, this legislation is generally called WHMIS (Workplace Hazardous Materials Information System). In the US, the OSHA Hazard Communication Rule (29 CFR1900.1200) prescribes what information is to be provided by MSDS. This MSDS has been prepared in the 16 section format consistent with the Globally Harmonized System of Classification and Labelling of Chemicals (GHS). Other agencies utilizing this format include the American National Standards Institute (ANSI) - American National Standard for Hazardous Industrial Chemicals, the International Organization for Standardization (ISO), the European Union (EU), and the International Labour Organization (ILO).

With respect to the products that are the subject of this MSDS, the WHMIS requirements of the Hazardous Products Act and Controlled Products Regulations do NOT apply to products classified as "manufactured articles". Section 11 of the Hazardous Products Act indicates by definition that a "manufactured article" means any article that is formed to a specific shape or design during manufacture, the intended use of which when in that form is dependent in whole or in part on its shape or design, and that, under normal conditions of use, will not release or otherwise cause a person to be exposed to a controlled product. In this definition, "exposure" means in a sufficient quantity to pose a hazard. Exposure is limited to the toxicological hazards and means potential for physical contact that could result in damage or potential for entry into the body by a route that could cause harm. "Normal condition of use" does not include an installation process. The subject products fall within the scope of this definition and as "manufactured articles" do not require a MSDS. The information provided in this MSDS relates to the nature of the raw materials used to make the manufactured articles.

**SECTION 16**  
**OTHER INFORMATION**

**INFORMATION FOR HANDLING AND IDENTIFICATION OF CHEMICAL HAZARDS**

HMIS Ratings	<b>HEALTH</b> * 1	0 = Minimal Hazard	NFPA Ratings		
	<b>FLAMMABILITY</b> 1	1 = Slight Hazard			
	<b>PHYSICAL HAZARD</b> 0	2 = Slight Hazard			Health 1
	<b>PERSONAL PROTECTION</b> E	3 = Serious Hazard			Fire 0
		4 = Severe Hazard			Reactivity 0

E - Safety glasses, gloves and dust respirator ; \* - Chronic

The information contained in this document is based on the knowledge known at the date shown and is given in good faith. It is the users responsibility to satisfy oneself as to the suitability and completeness of this information for his/her own particular use. Users assume full responsibility for applying the appropriate safety measures when the product is used.

**Abbreviations**

CAS	Chemical Abstracts Service	NIOSH	National Institute for Occupational Safety and Health
CPR	Controlled Products Regulations	OSHA	Occupational Health and Safety Administration
DOT	US Department of Transportation	PEL	Permissible Exposure Limit
HMIS	Hazardous Materials Identification System	PPE	Personal Protective Equipment
IARC	International Agency for Research on Cancer	WHMIS	Workplace Hazardous Materials Information System