

MATERIAL SAFETY DATA SHEET

SECTION 1 – CHEMICAL PRODUCT AND COMPANY IDENTIFICATION

Product Name: SolarGuard Reflective Insulation™
Chemical Name: Mixture
Manufacturer: Guardian Building Products Distribution, Inc. dba GBP Silvercote
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SECTION 2 – COMPOSITION AND INGREDIENT INFORMATION

PRODUCT INGREDIENTS

Component	CAS #	Exposure Limits
Fiber Glass Wool	65997-17-3	OSHA PEL: 15 mg/M ³ (total dust) 5 mg/M ³ (respirable dust)
Acrylic thermoset resin	N/A	N/A
Urea extended phenol-melamine formaldehyde resin (cured)	25212-25-3	
Urea extended phenol-formaldehyde resin (cured)	25104-55-6	N/A
Phenol-formaldehyde resin (cured)	N/A	N/A
Aluminum Foil	7429-90-5	N/A
Polyester Film	N/A	M/A
Polymeric Adhesive	N/A	N/A
Polypropylene Film	N/A	N/A
Kraft Paper	N/A	N/A
Polymeric Adhesive (vinylidene chloride/butadiene copolymer)	N/A	N/A

HAZARDOUS INGREDIENTS

Antimony Oxide	1309-64-4	OSHA PEL: 0.5 mg/M ³ ACGIH TLV: 0.5 mg/M ³
Decabromodiphenyl Oxide	1163-19-5	OSHA PEL: 15.0 mg/M ³ ACGIH TLV: 10.0 mg/M ³
Fiberglass Yarn	65997-17-3	OSHA PEL: 15.0 mg/M ³ ACGIH TLV: 5.0 mg/M ³
Hydrated Alumina	21645-51-2	OSHA PEL: 15.0 mg/M ³ ACGIH TLV: 10.0 mg/M ³
Chlorinated Paraffin	63449-39-8	N/A
Zinc Compounds		OSHA PEL: 15.0 mg/M ³ ACGIH TLV: 10.0 mg/M ³

* Substances listed in the hazardous ingredients section are those that have been determined to be health hazards and are present at a concentration of 1% or greater, or 0.1% if the substance is on the list of potential carcinogens cited in the OSHA Hazard Communication Standard.

SECTION 3 – HAZARDS IDENTIFICATION

Primary Routes of Exposure: Inhalation (dust), eye and skin contact

Emergency Overview: Inhalation of excessive amounts of dust from the product may cause temporary upper respiratory irritation and/or congestion. Extended contact with this material may cause irritation to the skin, eyes, and mucous membranes.

Potential Health Effects: Breathing dust from this product may cause a scratchy throat, congestion, and slight coughing. Getting dust or fibers on the skin, or in the eyes may cause itching, rash, or redness.

Inhalation: Irritation of the upper respiratory tract, coughing, and congestion may occur in extreme exposures.

Skin: Temporary irritation, itching, or redness may occur.

Eyes: Temporary irritation, itching, or redness may occur.

Ingestion: This product is not intended to be ingested. Although unlikely under normal use, if ingested, product can cause gastrointestinal irritation, nausea, vomiting, and diarrhea.

SECTION 4 – FIRST AID MEASURES

Eye Contact: Do not rub or scratch your eyes. Dust particles may cause the eye to be scratched. Flush eyes with large amounts of water for at least 15 minutes. If irritation occurs, obtain medical attention.

Skin Contact: Wash gently with soap and water to remove dust. Wash hands before eating or using the restroom.

Ingestion: Although unlikely under normal use, if product is ingested in its whole form, obtain medical attention. Do not induce vomiting unless instructed to do so by medical personnel. If dust is ingested, irritation of the gastrointestinal tract may occur. Rinse mouth with water to remove fibers, and drink plenty of water to reduce the irritation.

Inhalation: Remove person to fresh air. Drink water to clear throat, and blow nose to remove dust.

SECTION 5 – FIRE FIGHTING MEASURES

Flash Point: Not Determined

Autoignition Temperature: Not Determined

Upper Flammable Limit: N/A

Lower Flammable Limit: N/A

Extinguishing Media: Dry chemical, carbon dioxide, water, water fog

Explosion Hazard: There is no known potential for explosion.

Fire Fighting Equipment: Firefighters should wear self-contained breathing apparatus.

Hazardous Combustion Products: Decomposition can produce hazardous chemicals. Carbon monoxide, carbon dioxide, acetic acid, vinyl acetate, and other unknown products may be produced during combustion.

SECTION 6 – ACCIDENTAL RELEASE MEASURES

Material should be swept up and discarded in accordance with applicable federal, state, and local regulations. Dust accumulation should be vacuumed. Avoid dust-generating means of cleanup.

SECTION 7 – HANDLING AND STORAGE

Handling: Use protective equipment as described in Section 8 of this material safety data sheet when handling uncontained material.

Storage: Material should be kept in a dry area and protected from the elements. Store away from ignition sources or combustible materials.

SECTION 8 – EXPOSURE CONTROLS / PERSONAL PROTECTION

Exposure Guidelines

Glass wool fiber, OSHA voluntary Health and Safety Partnership Program (HSPP): 1 f/cc TWA for fibers longer than 5µm with a diameter less than 3 µm.

Ventilation

In manufacturing settings, local exhaust ventilation should be provided at areas of cutting to remove airborne dust and fibers and keep exposure below exposure limits. Exposure levels and need for ventilation systems should be evaluated by a professional industrial hygienist.

General Equipment

Wear a cap, a loose-fitting, long-sleeved shirt and long pants to protect skin from irritation. Exposed skin areas should be washed with soap and warm water after handling or working with fiberglass. Clothing should be washed separately from other clothes, and the washer should be rinsed thoroughly (run empty for a complete wash cycle). This will reduce the chances of fiberglass being transferred to other clothing.

Respiratory

Use ventilation to control dust levels. If ventilation is inadequate to keep dust and fiber levels below the applicable exposure limits, use a NIOSH certified particulate respirator (half face respirator or two-strap disposable dust mask respirator) with a rating of N95 or better, such as 3M 8210 equivalent or higher. Operations such as sawing, blowing, tear out, or spraying, etc. that generate higher concentrations of dust/fiber may require a higher level of respiratory protection. Use APF ratings of respirators to select the appropriate respirator for the hazard level that exists. Wearing of respirators requires compliance with OSHA's Respiratory Protection Standard 29CFR 1910.134 General Industry, or 29CFR 1926.103 Construction.

Skin Protection

Leather or cotton gloves should be worn to prevent skin contact and irritation. Barrier creams may also be used to reduce skin contact and irritation caused by fiberglass.

Eye Protection

Safety glasses with sideshields are recommended to keep dust out of the eyes.

SECTION 9 – PHYSICAL AND CHEMICAL PROPERTIES

Appearance: Solid; Yellow, fibrous glass blanket center; silver foil, or white, black backing.

Odor: No significant odor

Density: Variable

Vapor Density: N/A **Vapor Pressure:** N/A

Boiling Point: N/A **pH:** N/A

Solubility in Water: Nil

SECTION 10 – STABILITY AND REACTIVITY

Stability: Stable

Hazardous Polymerization: Will not occur

Conditions to Avoid: Flame

Hazardous Decomposition Products: The decomposition products from this material are those that would be expected from any organic (carbon-containing) material, and are mainly derived from pyrolysis, or burning, of the resin. These decomposition products may include carbon monoxide, carbon dioxide, carbon particles, and traces of hydrogen cyanide. Other decomposition products may include hydrogen bromide, hydrogen chloride, acetic acid, vinyl acetate, and other organic vapors.

SECTION 11 – TOXICOLOGICAL INFORMATION

Acute Toxicity

- **General:** Dust from this product is a mechanical irritant, which means that it may cause temporary irritation or scratchiness of the throat, and/or itching of the eyes and skin.
- **Component Analysis – LD50/LC50**
 - Urea extended phenol-formaldehyde resin (cured) (25104-55-6)**
 - Oral LD50 Rat: 7 gm/kg
 - Oral LD50 Mouse: 7 gm/kg

Carcinogenicity

- **General:** The Occupational Safety and Health Administration (OSHA), National Toxicology Program (NTP), International Agency for Research on Cancer (IARC), and American Conference of Governmental Industrial Hygienists (ACGIH) have not classified this product in its entirety as a carcinogen.
- **Component Carcinogenicity:**
 - Fiber Glass Wool (65997-17-3)**
 - ACGIH: AS – Animal Carcinogen (related to glass wool fibers)
 - NTP: Suspect Carcinogen (related to glass wool) (Possible Select Carcinogen)
 - IARC: Monograph 43, 1988; Monograph 81, 2002 (related to insulation glass wool) (Group 3 (not classifiable))

Chronic Toxicity

Fiber Glass Wool: In October 2001, IARC classified fiber glass wool as Group 3, “not classifiable as to its carcinogenicity to humans.” The 2001 decision was based on current human and animal research that shows no association between inhalation exposure to dust from fiber glass wool and the development of respiratory disease. This is a reversal of the IARC finding in 1987 of a Group 2B designation (possibly carcinogenic to humans) based on earlier studies in which animals were injected with large quantities of fiberglass. NTP and ACGIH have not yet reviewed the IARC reclassification or the most current fiberglass health research; at this time, both agencies continue to classify glass wool based on the earlier animal injection studies.

SECTION 12 – ECOLOGICAL INFORMATION

No ecotoxicological data is available for this product.

SECTION 13 – DISPOSAL CONSIDERATIONS

This product is not considered a hazardous waste under Resource Conservation and Recovery Act (RCRA) regulations. Dispose of in compliance with local, state, and federal regulations. When incinerating, use a unit with acid scrubber to remove hydrogen chloride and bromide.

SECTION 14 – TRANSPORT INFORMATION

Material not regulated by DOT as hazardous material.

Shipping Name: N/A

Hazard Class: N/A

Labeling Requirements: N/A

Placards: N/A

SECTION 15 – REGULATORY INFORMATION

US Federal Regulations

This material contains one or more of the following chemicals required to be identified under SARA Section 302 (40 CFR 355 Appendix A), SARA Section 313 (40 CFR 372.65) and/or CERCLA (40 CFR 302.4).

Fiber Glass Wool (65997-17-3)

CERCLA: 1 lb statutory RQ (no final RQ is being assigned to the generic or broad class. Includes mineral fiber emissions from facilities manufacturing or processing glass rock or slag fibers, or other mineral derived fibers, of average diameter 1 µm or less); 0.454 kg statutory RQ (no final RQ is being assigned to the generic or broad class. Includes mineral fiber emissions from facilities manufacturing or processing glass rock or slag fibers, or other mineral derived fibers, of average diameter 1 µm or less). (related to fine mineral fibers).

State Regulations

The following components appear on one or more of the following state hazardous substances lists:

	CAS #	CA	FL	MA	MN	NJ	PA
Fiber Glass Wool	65997-17-3	Yes	No	Yes	Yes	No	Yes

The following statement(s) are provided under the California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65): **WARNING!** This product contains a chemical known to the state of California to cause cancer.

Other Regulatory Information

TSCA Status: Components of the adhesive used to apply the facings are listed on the U.S. EPA TSCA Inventory List. Components of the fiber glass wool are listed on the TSCA 8(b) inventory.

WHMIS Status: No components are listed in the WHMIS IDL.

NFPA Rating: Health – 1, Flammability – 1, Reactivity – 0

HMIS Rating: Health – 1, Flammability – 1, Reactivity - 0

SECTION 16 – OTHER INFORMATION

The information and recommendations provided in this MSDS are, to the best of Guardian Building Products' knowledge, both accurate and reliable as of the date prepared. Guardian Building Products does not warrant or guarantee their accuracy or reliability, and does not accept any liability for any loss, damage, or expense in connection with this information or its use.