



1. PRODUCT IDENTIFICATION

FIBERGLASS - POLYESTER SKINS / Balsa CORE PANEL

- Gillfab™ 5007A Panel
- Gillfab™ 5007B Panel
- Gillfab™ 5007C Panel
- Gillfab™ 5018T Panel

2. COMPOSITION - INFORMATION ON INGREDIENTS

Chemical ingredients (% by wt.)

COMPONENT	CAS	%
fiberglass	65997-17-3	10 - 50
cured polyester resin	proprietary	18 - 50
balsa wood core	N.A.	4 - 60
antimony compounds	proprietary	1.0 - 4.0
inorganic arsenic	7440-38-2	< 0.02
zinc borate	138265-88-0	0.3 - 5.0
organic phosphate flame retardant	proprietary	0.3 - 0.5
proprietary adhesion reinforcement	proprietary	0.8 - 2.0
polyvinylflouride polymer	24981-14-4	0 - 5

OSHA REGULATORY STATUS

As shipped this material is an inert fiberglass/cured polyester skin panel with a balsa core in which ingredients have been cured using a thermoset process. While this material is not classified as hazardous under OSHA regulations, this MSDS contains valuable information critical to the safe handling and proper use of the product. This MSDS should be retained and available for employees and other users of the product.

3. HAZARDS IDENTIFICATION

Flat, textured, white or off-white panels with a slightly sweet odor. Heat may cause flammable hazardous decomposition products, which may form toxic materials such as carbon dioxide, carbon monoxide, various low molecular weight hydrocarbons, oxides of phosphorus, biphenyl, organic acids and other toxic gases, acrid smoke, and fumes. Flammable gases and vapors may also be produced during thermal decomposition. Decomposition can be hazardous and uncontrollable.

POTENTIAL HEALTH EFFECTS

- EYE:** Dusts may cause irritation or scratch the surface of the eye. Can cause redness, tearing, blurred vision, and pain.
- SKIN:** Skin contact with dust and fibers of this product may produce itching and transient mechanical irritation. Skin irritation is worse when the surface of the skin is moist, as found with perspiration.
- INGESTION:** Ingestion not recommended and not expected to be a route of exposure. If ingestion occurs, treat symptomatically.
- INHALATION:** Inhalation of dust may result in itching and upper respiratory tract irritation. Inhalation is considered the primary route of occupational exposure.



CHRONIC EFFECTS/ CARCINOGENICITY

This product contains synthetic fibers (fiberglass). While OSHA does not regulate fibrous glass as a carcinogen, fiberglass has been studied by the scientific community for many years as a potential carcinogen. Some mineral fibers, depending on base material and size of fiber are classified as potential carcinogens. **Continuous filament glass fibers** are listed by IARC (Group 3 - "Not classifiable as to carcinogenicity to humans") and ACGIH as A-4 ("Not classifiable as a human carcinogen; inadequate data on which to classify the agent in terms of its carcinogenicity in humans and/or animals"). Release of this material during processing, as adequate local exhaust ventilation, good work practices, and use of personal protective equipment as needed should control respirable and non-respirable fibers.

This product contains the following chemicals:

Approximately 18-50% of the product is a cured polyester resin, which has styrene as an ingredient. OSHA PEL of cured polyester resin is not established. ACGIH TLV - none established. The National Toxicology Program (NTP) does not include styrene on its list of chemicals expected to be carcinogenic. ACGIH lists the styrene compounds as (Group A4 - "Not classified as a Human Carcinogen").

Proprietary Antimony Compounds are 1.0-4.0% of the final product. The primary route of chronic exposure of antimony compounds is by inhalation. Various studies of human overexposure to various forms of antimony in smelters reported effects primarily including dermatitis, rhinitis, inflammation of the upper and lower respiratory tract (including pneumonitis), with few cases of gastritis, conjunctivitis, and septal perforations. Antimony compounds should be handled as suspect carcinogens because of these findings. Antimony compounds are an I.A.R.C. (Group IIB) suspect carcinogen. Local exhaust ventilation is necessary to maintain employee exposure as far below OSHA permissible exposure limits as practical.

Inorganic arsenic, an impurity found in antimony compounds, is present in a small amount in the final product (< 0.02%). Inorganic arsenic compounds have been studied extensively in relation to cancers found in nickel and copper smelter workers. IARC, NTP, ACGIH, OSHA, EPA and NIOSH classify inorganic arsenic as a known carcinogen. Germany's Deutsche Forschungsgemeinschaft (DFG) lists inorganic arsenic compounds as (A1 - "Compounds capable of inducing malignant tumors as shown by experience with humans"). Compounds in DFG's Category A have no concentration value listed in Section 11a (the main MAK table) since no values have been established for a safe concentration range. According to California Proposition 65, inorganic arsenic is a chemical known by the State of California to cause cancer and reproductive toxicity. Release of this material as inorganic arsenic may occur in trace quantities during processing of the product, but is not expected to present a significant hazard if exposure controls and personal protection practices listed in Section 8 are followed.

Zinc borate is present at 0.3-5.0% of the final product. Zinc borate has low acute oral (more than 10g/kg in rats) and dermal (more than 10g/kg in rabbits) toxicity, and is not known to be carcinogenic. High levels of zinc borate ingested in animal studies show that borates can lead to reproductive and developmental effects, although occupational exposure levels shows no adverse effects. No target organ has been identified in humans, but accidental over-exposure may give symptoms of nausea, vomiting, and diarrhea, with delayed effects of skin reddening and peeling. Zinc borate is listed as hazardous under the OSHA Hazard Communication Standard and controlled under WHMIS in Canada. Zinc borate is considered a hazardous waste material in California. Release of this material may occur in trace quantities during processing of the product, but is not expected to present a significant hazard if exposure controls and personal protection practices listed in Section 8 are followed.

A proprietary organic phosphate flame retardant is present in small quantities (0.3-0.5%) in the final product. Skin and eye irritation from exposure to this substance during processing of the product can be slight to moderate, but is not expected to present a significant hazard if exposure controls and personal protection practices listed in Section 8 are followed. The dermal LD50 in guinea pigs from exposure to this material is greater than 21.4g/kg, while the oral LD50 in rats is greater than 1.3g/kg. The inhalation LC-50 for a six hour exposure time in rats was greater than 2 mg/L. This organic phosphate is controlled by WHMIS in Canada with a classification of D/2/B, and has a Sara 311-312 classification of an immediate (acute) health hazard.

The chronic effect of the general product is not known.



MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE

Persons with a history of chronic lung diseases may be at increased risk from exposure to excessive levels of nuisance dust. Persons with medical conditions generally aggravated by mechanical irritants in the air or on the skin may be at increased risk for a worsening of the underlying condition if exposed.

POTENTIAL ENVIRONMENTAL EFFECTS

This product as shipped is inert and should pose no significant hazard to the environment.

4. FIRST AID MEASURES

- EYE:** Flush with water for 15 minutes. Seek medical attention if irritation persists. Eye contact with dust may produce mechanical irritation.
- SKIN:** Wash exposed area with soap and water. DO NOT rub or scratch irritated area. Skin contact with dust and fibers of this product may produce itching and transient mechanical irritation.
- INGESTION:** Avoid ingestion. Treat symptomatically. If swallowed do not induce vomiting. Keep person warm, quiet and get medical attention. Aspiration of the material into the lungs due to vomiting can cause chemical pneumonitis, which can be fatal.
- INHALATION:** Move individual to fresh air. If breathing is difficult administer oxygen. Seek medical attention if irritation persists. Inhalation of dust may result in itching and upper respiratory tract irritation..

5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: Not known

FLAMMABLE LIMITS LFL: Not applicable

UFL: Not applicable

EXTINGUISHING MEDIA: Water, foam, and carbon dioxide, dry chemical.

FIRE AND EXPLOSION HAZARDS: Can decompose in a fire emitting toxic fumes and gases of CO, CO₂, various low molecular weight hydrocarbons, oxides of phosphorous, biphenyl, organic acids and other toxic gases, acrid smoke.

FIRE FIGHTING EQUIPMENT: Wear full bunker gear including a positive pressure self-contained breathing apparatus.

6. ACCIDENTAL RELEASE MEASURES

Avoid generating excess dust. HEPA vacuum or wet wipe dusts and place in a disposable container. It is your duty to dispose of the chemical materials and/or their containers in accordance with the Clear Air Act, the Clean Water Act, the Resource Conservation and Recovery Act and all state and local laws/ regulations regarding disposal.

7. HANDLING AND STORAGE

When handling, wear a long-sleeve shirt, rubber gloves and chemical safety goggles. Wear proper respiratory protection where potential exposure to dust may occur (approved by NIOSH/ MSHA). Avoid breathing dust. Minimize dust generation and accumulation. Store indoors in dry, well-ventilated area to protect material. DO NOT store in open, unlabeled or mislabeled containers.



8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS:	Provide efficient mechanical (general/local exhaust) ventilation to maintain exposure below TLV(s). Minimize dust generation and accumulation.
RESPIRATORY PROTECTION:	Where dust is generated use a NIOSH approved half and full face air purifying respirator with dust/mist filter cartridges. Use in accordance with OSHA regulations under 29 CFR 1910.134
SKIN PROTECTION:	Wear chemical resistance gloves that affords proper protection to the hands, such as: neoprene, rubber, latex, etc. Wear loose fitting, long sleeved clothing and long pants.
EYE PROTECTION:	If dust is generated, wearing chemical goggles in compliance with OSHA regulations is advised. However, OSHA regulations also permit other type safety glasses (consult your safety equipment supplier), or wear full-face respirator with dust/mist filter cartridges.

GENERAL HYGIENE CONSIDERATIONS:

The health hazards associated with this material, when used as recommended, are mechanical skin, eye, and respiratory irritation associated with the generation of fiberglass composite dusts during machining or cutting. The following general hygiene considerations are recognized as common, good industrial hygiene practices:

- Wash hands after use and before eating
- Shower at the end of the workday. Wash work clothes separately and wipe out washer at the end of the cycle.
- Avoid breathing dust
- Wear safety goggles

EXPOSURE GUIDELINES

There are no hazardous components in this material as received, however, cutting, milling, drilling, routing, or otherwise fabricating this material may produce dust which can contain the following:

COMPONENT	CAS#	OSHA PEL TWA	ACGIH TLV
Cured polyester resin	proprietary	N/A	N/A
Fibrous glass dust	65997-17-3	Total dust 15 mg/m ³ Respirable 5 mg/m ³	Total dust 5 mg/m ³ Respirable 1 fiber/cc
Balsa wood	N.A.	Total dust 15 mg/m ³ Respirable 5 mg/m ³	1.0 mg/m ³
Antimony Compounds	proprietary	0.5 mg/m ³ (as Sb)	0.5 mg/m ³ (as Sb)
Inorganic Arsenic	7440-38-2	0.01 mg/m ³	0.01 mg/m ³
Zinc Borate	138265-88-0	Total dust 15 mg/m ³ Respirable 5 mg/m ³	10 mg/m ³
Organic Phosphate	proprietary	not established	not established



9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Flat, textured, white or off-white panels
ODOR:	No odor
BOILING POINT:	N/A
VAPOR PRESSURE	N/A
SOLUBILITY IN WATER:	None
SPECIFIC GRAVITY (H₂O=1):	0.28 – 1.0 g/cc
pH:	N/A
UEL:	N/A
LEL:	N/A

10. STABILITY AND REACTIVITY

STABILITY:	Stable
MATERIALS TO AVOID:	Avoid contact with strong alkaline, strong mineral acids and oxidizing and reducing agents.
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	CO, CO ₂ , various low molecular weight hydrocarbons, oxides of phosphorus, biphenyl, organic acids and other toxic gases, acrid smoke, and fumes. Flammable gases and vapors may also be produced during thermal decomposition.

11. TOXICOLOGICAL INFORMATION

For the detailed toxicological information on the components of this material, contact the address listed in Section 1 of this MSDS

12. ECOLOGICAL INFORMATION

None found

13. DISPOSABLE CONSIDERATIONS

If material as supplied becomes a waste, incinerate or landfill in accordance with local, state, and federal laws and regulations. Incinerate only if incinerator is operated at high temperature and is capable of scrubbing out acidic combustion products. Contact your local or state environmental agency for specific rules.

14. TRANSPORT INFORMATION

DOT:	Not Regulated
IMO:	Not Regulated
IATA:	Not Regulated

15. REGULATORY INFORMATION

INVENTORY STATUS – fiberglass

<u>Inventory</u>	<u>Status</u>
United States (TSCA)	Listed
European Union (EINECS)	Listed
Canada (DSL)	Listed



CERCLA/ SUPERFUND, 40 CFR 117.302: This material contains Reportable Quantity (RQ) Substances: Antimony Compounds.

SARA HAZARD CATEGORY: This material has been reviewed according to the EPA Hazard Categories promulgated under Section 311 and 312 of the Superfund Amendment and Reauthorization Act of 1986 (SARA Title III) and is considered to meet the following categories: None.

SARA 313 INFORMATION: This material contains the following substances subject to the reporting requirements of Section 313 if Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372: None.

These products do not contain any components exceeding the de minimis amount subject to reporting under Section 313 of the Emergency Planning and Community Right-to-know act of 1986 and of 40 CFR 372.

CALIFORNIA PROPOSITION 65: The following statement is made in compliance with the California Safe Drinking and Toxic Enforcement Act of 1986:

Substances known to the State of California to cause cancer, birth defects or other reproductive harm: None.

16. OTHER INFORMATION

MSDS STATUS: Revised all sections re: ANSI Z400.1-1998 format
MSDS PREPARED BY: MC Gill Corporation: 11/28/06

M.C. Gill Corporation provides this information as a customer service. While the information contained in this MSDS is believed to be correct, no guarantee or warranty of any kind is made with respect to this information.

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