



1. PRODUCT IDENTIFICATION

SANDWICH PANELS COMPOSED OF ALUMINUM SKINS BONDED TO A GLASS/EPOXY CORE

- GILLFAB 5433A, 5433C, 5433E

2. COMPOSITION - INFORMATION ON INGREDIENTS

Chemical ingredients (% by wt.)

COMPONENT	CAS	%
Aluminum	7429-90-5	60 - 80
Fiberglass	65997-17-3	19 - 30
Epoxy Resin	Proprietary	5 - 16
Strontium Chromate (Gillfab 5433A only)	7789-06-2	< 0.4

OSHA REGULATORY STATUS

As shipped this material is an inert composite sandwich panel composed of aluminum skins bonded to an epoxy resin/fiberglass core in which thermosetting polymer ingredients have been cured under the influence of heat and pressure. 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

Sandwich panel metallic grey in color. Decomposition and combustion products may be toxic. Can decompose in a fire emitting toxic fumes and gases of carbon dioxide, carbon monoxide, oxides of nitrogen, metal oxides; other toxic and irritating gases can be produced depending on condition of combustion.

POTENTIAL HEALTH EFFECTS

EYE: Dusts may cause irritation or scratch the surface of the eye.

SKIN: Skin contact with dust of this product may produce itching and transient mechanical irritation.

INGESTION: Ingestion is 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. Repeated exposure to dust may cause chronic lung disorders



CHRONIC EFFECTS/ CARCINOGENICITY

Local exhaust ventilation should be used to maintain employee exposure as far below OSHA permissible exposure limits as is practical.

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 aluminum, which can cause pulmonary fibrosis and lung damage if inhaled as a fine powder, and is complicated by silica and iron oxide dust. Aluminum may also be implicated in Alzheimer's disease. The oral LD50 = NIF; LC50 = NIF. Release of this material as aluminum dust may occur in trace quantities during processing of the product, but is not expected to present a significant hazard.

This product contains strontium chromate (Gillfab 5433A only) at < 0.4%. Strontium chromate contains 25.5 weight percent hexavalent chromium, which is listed as a carcinogen by NTP, IARC, and OSHA. Prolonged exposure may cause blood, gastrointestinal, nervous, and reproductive effects. Protective equipment should be used to minimize contact with this material, but it is not expected to present a significant hazard under normal handling.

There are no hazardous components in this material as received, however, cutting, milling, drilling, routing or otherwise fabricating this material may produce the following: particles - not otherwise regulated, total dust. Release of this material during processing as respirable and non-respirable dust should be controlled by adequate local exhaust ventilation, good work practices, and use of personal protective equipment as needed.

Note: The components listed above are those which have not been modified by the thermo set curing process. However, the cured resins effectively encapsulate these materials. On grinding or cutting of the product, any dust generated would contain particles of the materials in the weight percentages indicated above in Section 2, Composition.

MEDICAL CONDITIONS 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.
SKIN: Wash exposed area with soap and water. DO NOT rub or scratch irritated area. If fiberglass becomes imbedded, seek medical attention
INGESTION: Avoid ingestion. Treat symptomatically.
INHALATION: Move individual to fresh air. Seek medical attention if irritation persists.



5. FIRE FIGHTING MEASURES

FLAMMABLE PROPERTIES

FLASH POINT: Not known

FLAMMABLE LIMITS LFL: Not applicable

UFL: Not applicable

EXTINGUISHING MEDIA: Use a Class D fire extinguisher. Do not use Class A, B, or C fire extinguishers such as water or halogenated materials.

FIRE AND EXPLOSION HAZARDS: Can decompose in a fire emitting toxic fumes and gases of carbon dioxide, carbon monoxide, oxides of nitrogen, metal oxides; other toxic and irritating gases can be produced depending on condition of combustion.

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

6. ACCIDENTAL RELEASE MEASURES

HEPA vacuum or wet wipe dusts and place in a disposal container. Avoid excess dust generation.

7. HANDLING AND STORAGE

Avoid contact with eyes. Avoid inhalation of product dust. Minimize dust generation and accumulation. Store indoors in dry area to protect material.

8. EXPOSURE CONTROLS/PERSONAL PROTECTION

ENGINEERING CONTROLS: Provide local exhaust ventilation to maintain airborne levels below the exposure limits. 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 gloves to protect against sharp edges. Wear loose fitting, long sleeved clothing and long pants.

EYE PROTECTION: If dust is generated, wear chemical goggles or full face respirator.

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 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 work day.
- 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	OSHA PEL TWA	ACGIH TLV
Fiberglass	Total dust 15 mg/m ³ Resp dust 5 mg/m ³	Total dust 5 mg/ mg/m ³ Resp dust 1 fiber/cc
Aluminum	15 mg/m ³ , metal, total dust (as Al) 5 mg/m ³ , metal, respirable (as Al)	10 mg/m ³ , metal dust 5 mg/m ³ , welding fume
Strontium Chromate (Gillfab 5433A only)	0.1 mg/m ³	0.001 mg/m ³



9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Sandwich panel, metallic gray in color
ODOR:	None
BOILING POINT:	N/A
VAPOR PRESSURE	N/A
SOLUBILITY IN WATER:	Unknown
SPECIFIC GRAVITY (H2O=1):	Density approximately 2.0 – 2.5 g/cc
pH:	N/A
UEL:	N/A
LEL:	N/A

10. STABILITY AND REACTIVITY

STABILITY:	Stable
MATERIALS TO AVOID:	Strong oxidizing agents, strong acids and bases, especially oxalic and hydrofluoric acid and acyl halides.
HAZARDOUS POLYMERIZATION:	Will not occur
HAZARDOUS DECOMPOSITION PRODUCTS:	Decomposition and combustion products may be toxic. Can decompose in a fire emitting toxic fumes and gases of carbon dioxide, carbon monoxide, metal oxides; oxides of nitrogen and other toxic and irritating gases can be produced depending on condition of combustion.

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, landfill in accordance with local, state, and federal laws and regulations. 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, Aluminum, Strontium Chromate (Gillfab 5433A only)

<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:
Zinc oxide.

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 of Title III of the Superfund Amendment and Reauthorization Act of 1986 and 40 CFR Part 372. **Strontium chromate (in 5433A only)**

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:
Strontium chromate (Gillfab 5433A only)

16. OTHER INFORMATION

MSDS STATUS: Revised all sections re: ANSI Z400.1-1998 format
MSDS PREPARED FOR: **M.C. Gill Corporation**
4/21/05

The information contained herein is believed to be correct. However, no guarantee or warranty of any kind is made with respect to this information.

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.

M.C. Gill Corp.
4056 Easy Street
El Monte, CA 91731-1087 USA
626-443-4022 info@mcgillcorp.com

M.C. Gill Europe Ltd. - Insoleq
23 Enterprise Road, Balloo Industrial Estate South
Bangor Co-Down BT19 7TA, Northern Ireland
+44 (0) 2891 470073 sales@mcgillcorp.com

www.mcgillcorp.com

© M.C. Gill Corporation. All rights reserved.

