



1. PRODUCT IDENTIFICATION

ARAMID FIBER REINFORCED PHENOLIC LAMINATE

- Gillfab™ 1360A Laminate
- Gillfab™ 1360B Laminate

2. COMPOSITION - INFORMATION ON INGREDIENTS

Chemical ingredients (% by wt.)

COMPONENT	CAS	%
Aramid fiber (Poly(para-phenylenediamine terephthalamide))	26125-65-1	70 – 90%
co-cured phenolic resin/synthetic elastomer	proprietary	10 - 30%
flame retardant	proprietary	0.3 - 1.0 %

OSHA REGULATORY STATUS

As shipped this material is an inert Aramid fiber/plastic laminate 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 sheets, yellow in color, with slight characteristic odor. Can decompose in a fire emitting toxic fumes and gases of CO, CO₂, methane, formaldehyde, phenol, hydrogen bromide, hydrogen cyanide, oxides of nitrogen, ammonia, and small amounts of aromatic and aliphatic hydrocarbons.

POTENTIAL HEALTH EFFECTS

- EYE:** Dusts may cause irritation or scratch the surface of the eye.
- SKIN:** Skin contact with dust and fibers 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.

CHRONIC EFFECTS/ CARCINOGENICITY

Processing or machining this product may create fiber dust in the air small enough to be breathed into the lungs, which at high concentrations repeatedly over long periods of time may cause fibrosis (lung injury). Release of this material during processing as respirable and non-respirable fibers should be controlled by adequate local exhaust ventilation, good work practices, and use of personal protective equipment as needed.

Para-aramid fibers are listed by IARC as Group 3 - "Not classifiable as to carcinogenicity to humans".

MEDICAL CONDITION GENERALLY AGGRAVATED BY EXPOSURE

Persons with a history of chronic lung disease may be at increased risk from exposure to excessive levels of nuisance dusts. 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: Water, foam, carbon dioxide, dry chemical.

FIRE AND EXPLOSION HAZARDS: Can decompose in a fire emitting toxic fumes and gases of CO, CO₂, methane, formaldehyde, phenol, hydrogen bromide, hydrogen cyanide, oxides of nitrogen, ammonia, and small amounts of aromatic and aliphatic hydrocarbons.

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 breathing 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 or 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 impermeable to glass fibers. 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 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 the following:

COMPONENT	CAS#	OSHA PEL TWA	ACGIH TLV	DuPont AEL
Aramid fiber	26125-65-1	None Established	None Established	2 fibrils/cc-8hr TWA, respirable Fibrils** 5 mg/m ³ total dust

*AEL is DuPont's Acceptable Exposure Limit. Where governmentally imposed occupational exposure limits lower than the AEL are in effect, such limits shall take precedence.

**Respirable fibrils are particles <3um diameter, 5-60um long, with aspect ratios >3.

9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE:	Flat sheets, yellow in color
ODOR:	Slight sweet odor
BOILING POINT:	Not Applicable
VAPOR PRESSURE	Not applicable
SOLUBILITY IN WATER:	Not applicable
SPECIFIC GRAVITY:	1.16 g/cc
pH:	Not applicable
UEL:	Not applicable
LEL:	Not applicable

10. STABILITY AND REACTIVITY

STABILITY:	Stable
MATERIALS TO AVOID:	Strong oxidizing agents, strong acids and bases, especially oxalic and hydrofluoric acid, halogens, and acyl halides.
HAZARDOUS DECOMPOSITION PRODUCTS:	CO, CO ₂ , formaldehyde, phenol, hydrogen bromide, hydrogen cyanide, oxides of nitrogen, ammonia and small amounts of aromatic and aliphatic hydrocarbons.
HAZARDOUS POLYMERIZATION:	Will not occur

11. TOXICOLOGICAL INFORMATION

For 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 capable of scrubbing out hydrogen fluoride and other 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

CERCLA/SUPERFUND, 40 CFR 117.302: This material is not regulated as hazardous waste under CERCLA.

SARA HAZARD CATEGORY: This material has been reviewed according to the EPA Hazard Categories promulgated under Sections 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 no 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. 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: this product contains no substances known to the State of California to cause cancer, birth defects or other reproductive harm.

16. OTHER INFORMATION

MSDS STATUS:	Revised all sections re: ANSI Z400.1-1998 format
MSDS PREPARED BY:	M.C. Gill Corp. 10/29/01 October 2003

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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