

SAFETY DATA SHEET



FR4

Version 1

Revision Date 08/01/2024

Print Date 08/01/2024

SECTION 1: IDENTIFICATION

Product Names: FR4
Other/ Generic Names: Glass Epoxy Laminate

Manufacturer or supplier's details

Company: The Gund Company, Inc.
2121 Walton Road
St. Louis, MO 63114
Telephone: (314) 423-5200
Visit our Website: www.thegundcompany.com
Email Address: info@thegundcompany.com
Emergency Telephone: (262) 522-7990

Recommended use of the chemical and restrictions on use

Recommended use: Industrial use of thermoset laminate.
Restrictions on use: Refer to Section 15 for any restrictions that may apply.

SECTION 2: HAZARDS IDENTIFICATION

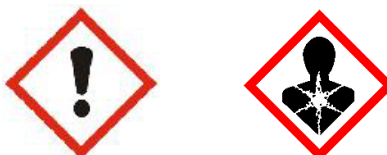
When machined or cut and dust is formed, the following apply:

GHS Classification

Skin sensitization: Category 1/1A/1B
Skin corrosion/irritation: Category 3
Respiratory sensitization: Category 1/1A/1B
Eye sensitization: Category 2B

GHS Label Element

Hazard pictograms:



Signal word: Warning, Danger

SAFETY DATA SHEET



FR4

Version 1

Revision Date 08/01/2024

Print Date 08/01/2024

Hazard statements:	No hazards are associated with this product as shipped. Hazards are associated with product only after further processing (machining, punching) or after thermal decomposition. H316 Causes mild skin irritation H317 May cause allergic reaction to skin H334 May cause allergy or asthma symptoms or breathing difficulties if inhaled
Precautionary statements:	Prevention: P261 Avoid breathing dust/ fume/ gas/ mist/ vapors/ spray. P271 Use in a well-ventilated area. P280 Wear protective gloves. Response: P302 + P352 IF ON SKIN: Wash with plenty of soap and water. P305 + P351 + P338: IF IN EYES: Rinse cautiously with water for several minutes. Remove contact lenses, if present and easy to do. Continue rinsing. P333 + P313 If skin irritation or rash occurs: Get medical advice/attention. P337 + P313: If eye irritation persists: Get medical advice/attention. P342 + P311: If experiencing respiratory symptoms: Call a POISON CENTER or doctor/physician. P363 Wash contaminated clothing before reuse. Disposal: P501 Dispose of contents/ container to an approved waste disposal plant.

SECTION 3: COMPOSITION / INFORMATION ON INGREDIENTS

Hazardous components

Component	CAS-No.	Concentration (%)
N/A- This product consists of cured epoxy with glass fiber and mineral fillers		Proprietary

SECTION 4: FIRST AID MEASURES

For dust generated from further processing or fumes generated from thermal decomposition:

EYES:	Flush eyes with water as precaution. Remove contact lenses if applicable. If irritation persists, seek medical attention.
SKIN:	Should irritation occur, rinse with water. If skin irritation persists, consult physician. Remove contaminated clothing and wash before reuse.
INGESTION:	If swallowed, do not induce vomiting. Never give anything by mouth to a victim who is unconscious or is having convulsions. If vomiting occurs naturally, have victim lean forward to reduce risk of aspiration.

SAFETY DATA SHEET



FR4

Version 1

Revision Date 08/01/2024

Print Date 08/01/2024

INHALATION: No specific treatment is necessary since this material is not likely to be hazardous by inhalation. If exposed to excessive levels of dust or fumes, remove to fresh air and get medical attention if cough or other symptoms develop.

NOTES TO PHYSICIANS OR FIRST AID PROVIDERS: Treat symptomatically.

SECTION 5: FIRE-FIGHTING MEASURES

FLAMMABLE PROPERTIES: May burn, but does not readily ignite.

EXTINGUISHING MEDIA: Dry chemical, CO₂, water spray or regular foam. Do not use a solid water stream as it may scatter and spread fire.

SPECIAL FIRE FIGHTING PROCEDURES: Firefighters should wear full protective clothing, including self-contained breathing apparatus.

HAZARDOUS DECOMPOSITION PRODUCTS: Irritating and toxic gases or fumes may be released during a fire including hydrogen bromide, carbon monoxide, and carbon dioxide.

SECTION 6: ACCIDENTAL RELEASE MEASURES

ACCIDENTAL RELEASE MEASURES: Accidental release is not normally a consideration.

SECTION 7: HANDLING AND STORAGE

HANDLING AND STORAGE: No special precautions.

SECTION 8: EXPOSURE CONTROLS / PERSONAL PROTECTION

VENTILATION: Use local exhaust ventilation to control dust.

RESPIRATORY PROTECTION: If dust exposed exceeds exposure guidelines, use approved dust respirator.

EYE PROTECTION: Safety glasses, preferably with side shields should be worn with normal handling.

SAFETY DATA SHEET



FR4

Version 1

Revision Date 08/01/2024

Print Date 08/01/2024

SKIN PROTECTION: Protective gloves and clothing if dust will come in contact with skin.

Exposure Guidelines:

Ingredient Name	CAS #	CGIH TLV	OSHA PEL
Fibrous Glass Dust	(65997-17-3)	10 mg/m ³	None

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Solid, flat sheet, tube, or rod, light green color

ODOR: None

MELTING POINT: Not determined

SOLUBILITY IN WATER: Insoluble

SPECIFIC GRAVITY: 1.8-2.0 g/cc

SECTION 10: STABILITY AND REACTIVITY

STABILITY: This product is considered stable.

CONDITIONS TO AVOID (STABILITY): Heat flames and sparks.

MATERIAL TO AVOID (INCOMPATIBILITY): Not yet determined.

CONDITIONS TO AVOID (POLYMERIZATION): Temperatures above 572°F (300°C) will cause products of combustion which include Hydrogen Bromide gas, CO, and CO₂.

SECTION 11: TOXICOLOGICAL INFORMATION

TOXICOLOGICAL INFORMATION: Ingredients of this material may cause moderate eye, skin and/ or throat irritation.

SECTION 12: ECOLOGICAL INFORMATION

ECOLOGICAL INFORMATION: Material is not biodegradable.

SAFETY DATA SHEET



FR4

Version 1

Revision Date 08/01/2024

Print Date 08/01/2024

SECTION 13: DISPOSAL CONSIDERATIONS

WASTE DISPOSAL METHOD: Dispose in accordance with all applicable regulations.

SECTION 14: TRANSPORT INFORMATION

U.S. DEPARTMENT OF TRANSPORTATION (DOT): Not regulated as a dangerous good.

GENERAL: Not regulated as a dangerous good.

SECTION 15: REGULATORY INFORMATION

U.S. FEDERAL REGULATIONS

TSCA (TOXIC SUBSTANCE CONTROL ACT): All substances listed on inventory.

SARA TITLE III (SUPERFUND AMENDMENTS AND REAUTHORIZATION ACT):

311/312 HAZARD CATEGORIES: None

313 REPORTABLE INGREDIENTS: No

STATE REGULATIONS:

Materials known to the State of California to cause cancer or reproductive toxicity: This product poses no significant risk to persons exposed during normal use as defined by the California Safe Drinking Water and Toxics Enforcement Act (Proposition 65).

INTERNATIONAL REGULATIONS:

As an article, the product does not need to be labeled in accordance with EC-directives or respective national laws.

This product is REACH and RoHS compliant.

SECTION 16: OTHER INFORMATION

UL94 Flammability Classification: V-0, V-1, HB

DISCLAIMER:

To the best of our knowledge, the information contained herein is accurate. Final determination of suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards that exist.