

**SECTION 1: Identification of the substance/mixture and of the company/undertaking****1.1. Product identifier**

Product name : Nylon Reinforced Epoxy Laminate
Other means of identification : 1109
1137

1.2. Relevant identified uses of the substance or mixture and uses advised against

Use of the substance/mixture : The liner is designed for use as the support and protection of non-self-sealing fuel cells in certain military aircraft.

1.3. Details of the supplier of the safety data sheet

The Gill Corporation
4056 Easy Street
El Monte, CA 91731
www.thegillcorp.com

1.4. Emergency telephone number

Emergency number : CHEMTREC: 1-800-424-9300

SECTION 2: Hazards identification**2.1. Classification of the substance or mixture****Classification (GHS-US)**

Not classified

2.2. Label elements**GHS-US labeling**

No labeling applicable

2.3. Other hazards

Other hazards not contributing to the classification : As packaged, this material does not present significant health hazards. The hazards below apply to the product if aerosols or dusts are generated from cutting, grinding, or smelting. As shipped this material is an inert nylon fabric/epoxy laminate in which ingredients have been polymerized using heat and pressure. This product contains trace amounts of Isopropylidenediphenol.

2.4. Unknown acute toxicity (GHS-US)

Not applicable

SECTION 3: Composition/information on ingredients**3.1. Substance**

Not applicable

3.2. Mixture

Name	Product identifier	%	Classification (GHS-US)
NYLON-66	(CAS No) 32131-17-2	30 - 70	Not classified
Cured Epoxy Resin	(CAS No) Proprietary	30 - 70	Not classified

Full text of H-phrases: see section 16

SECTION 4: First aid measures**4.1. Description of first aid measures**

First-aid measures general : Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice (show the label where possible).

First-aid measures after inhalation : Get medical aid immediately. Remove from exposure and move to fresh air immediately. If not breathing, give artificial respiration. If breathing is difficult, give oxygen.

First-aid measures after skin contact : Remove affected clothing and wash all exposed skin area with mild soap and water, followed by warm water rinse. If skin irritation or rash occurs: Get medical advice/attention.

First-aid measures after eye contact : Immediately flush with large amounts of water, holding eyelids open, for at least 20 minutes. Repeat if necessary. Remove contact lenses, if present and easy to do. Seek medical assistance if irritation persists.

First-aid measures after ingestion : Not expected to be an important route of entry into the body. If large amounts of particulate matter are ingested, it may cause gastrointestinal distress. Seek medical attention.

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4.2. Most important symptoms and effects, both acute and delayed

Symptoms/injuries	: As packaged, this material does not present significant health hazards. The hazards below apply to the product if aerosols or dusts are generated from cutting, grinding, or smelting.
Symptoms/injuries after inhalation	: Inhalation of dust may result in itching and upper respiratory tract irritation. Vapors may cause dizziness or suffocation.
Symptoms/injuries after skin contact	: Dusts and particulate matter may cause irritation of the skin.
Symptoms/injuries after eye contact	: Dusts and particulate matter may cause irritation of the eyes.
Symptoms/injuries after ingestion	: Not expected to be an important route of entry into the body. Ingestion of large quantities of the product may cause gastric discomfort or distress.
Chronic symptoms	: 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.

4.3. Indication of any immediate medical attention and special treatment needed

No additional information available

SECTION 5: Firefighting measures

5.1. Extinguishing media

Suitable extinguishing media : Any. Use media appropriate for surrounding fire.

5.2. Special hazards arising from the substance or mixture

Fire hazard	: Product will not burn.
Explosion hazard	: Can decompose in a fire emitting toxic fumes and gases of CO, CO ₂ , various low molecular weight hydrocarbons, organic acids and other irritating or toxic gases, acrid smoke, and fumes. Large amounts of dust can be explosive and precautions given in Section 6 should be taken to avoid generating excess dust

5.3. Advice for firefighters

Firefighting instructions	: Evacuate area.
Protection during firefighting	: Do not enter fire area without proper protective equipment, including respiratory protection. Self-contained breathing apparatus.
Other information	: If tank, rail car or tank truck is involved in a fire, ISOLATE for 800 meters (1/2 mile) in all directions; also, consider initial evacuation for 800 meters (1/2 mile) in all directions.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

General measures : Use personal protective equipment. Avoid dust formation. Avoid breathing vapors, mist or gas. Avoid breathing dust.

6.1.1. For non-emergency personnel

Emergency procedures : Evacuate unnecessary personnel.

6.1.2. For emergency responders

Protective equipment : Equip cleanup crew with proper protection.
Emergency procedures : Ventilate area.

6.2. Environmental precautions

Any wastes generated during cleanup operations should be evaluated with respect to hazardous and solid waste regulations and disposed of in a properly permitted facility in accordance with all local, state, and federal regulations.

6.3. Methods and material for containment and cleaning up

For containment	: Do not walk through any dust resulting from damage to product. Prevent entry into waterways, sewers, basements or confined areas.
Methods for cleaning up	: Pick up product and return to original packaging if reusable. If not reusable, place in appropriate containers for disposal. Any wastes generated during cleanup operations should be evaluated with respect to hazardous and solid waste regulations and disposed of in a properly permitted facility in accordance with all local, state, and federal regulations.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Good housekeeping and engineering practices should be employed to prevent the generation and accumulation of dusts. Wet mopping or vacuuming with a unit that contains a HEPA filter is recommended to clean up any dusts that may be generated during handling and processing.

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Hygiene measures : Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

7.2. Conditions for safe storage, including any incompatibilities

Storage conditions : Store in tightly closed containers out of contact with the elements.
Incompatible products : Strong acids. Reducing agents.
Packaging materials : Place carefully in dry, water-tight containers. Seal containers.

7.3. Specific end use(s)

Use of the substance/mixture : The liner is designed for use as the support and protection of non-self-sealing fuel cells in certain military aircraft.

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

NYLON-66 (32131-17-2)		
ACGIH	ACGIH TWA (mg/m ³)	10mg/m ³ (total dust);3mg/m ³ (respirable particulates)
OSHA	OSHA PEL (TWA) (mg/m ³)	15mg/m ³ (total dust);5mg/m ³ (respirable particulates)

Cured Epoxy Resin (Proprietary) Particulates Not Otherwise Regulated

ACGIH	Not applicable	
OSHA	Not applicable	
Particulates Not Otherwise Regulated (Total Dust)		
ACGIH	ACGIH TWA (mg/m ³)	3 mg/m ³ Respirable; 10 mg/m ³ Total dust
OSHA	OSHA PEL (TWA) (mg/m ³)	5mg/m ³ Respirable; 15 mg/m ³ Total dust

8.2. Exposure controls

Appropriate engineering controls : General ventilation. Local exhaust and enclosed processes may be necessary for processes which generate large quantities of airborne dust.

Personal protective equipment : An Appropriate apron or other body covering, see above, is recommended where there is a possibility of regular work clothing becoming contaminated with the product. All soiled or dirty clothing and personal protective equipment should be thoroughly cleaned before reuse.

Eye protection : Where eye contact is possible with particulate matter, safety glasses with side shields are recommended.

Skin and body protection : Use insulated, impervious plastic or neoprene-coated canvas gloves and protective gear (apron, face shield, etc.) to protect hands and other skin areas.

Respiratory protection : If dusts or particulates are generated during handling or processing and exposures may exceed the limits cited above, use, as a minimum, a NIOSH approved ½ face piece respirator with cartridges approved for particulate matter with an exposure limit of not less than 0.05 mg/M3.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid
Appearance : Flat Laminate.
Color : Tan; Off white
Odor : None to Low Odor
Odor threshold : No data available
pH : Not Available
Relative evaporation rate (butyl acetate=1) : No data available
Melting point : No data available
Freezing point : No data available
Boiling point : No data available
Flash point : No data available
Auto-ignition temperature : No data available
Decomposition temperature : No data available
Flammability (solid, gas) : No data available
Vapor pressure : No data available

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Relative vapor density at 20 °C	: 1.5g/cc
Relative density	: No data available
Solubility	: No data available
Log Pow	: No data available
Log Kow	: No data available
Viscosity, kinematic	: No data available
Viscosity, dynamic	: No data available
Explosive properties	: No data available
Oxidizing properties	: No data available
Explosive limits	: No data available

9.2. Other information

No additional information available

SECTION 10: Stability and reactivity

10.1. Reactivity

No additional information available

10.2. Chemical stability

Product is stable. Hazardous polymerization will not occur.

10.3. Possibility of hazardous reactions

No additional information available

10.4. Conditions to avoid

Do not store with or near strong acids, or reducing agents.

10.5. Incompatible materials

No additional information available

10.6. Hazardous decomposition products

CO, CO₂, various low molecular weight hydrocarbons, organic acids and other irritating or toxic gases, acrid smoke, and fumes. Flammable gases and vapors may also be produced during thermal decomposition.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity	: Not classified
Skin corrosion/irritation	: Not classified pH: Not Available
Serious eye damage/irritation	: Not classified pH: Not Available
Respiratory or skin sensitization	: May cause an allergic skin reaction.
Germ cell mutagenicity	: Not classified (No known significant effects or critical hazards.)
Carcinogenicity	: Not classified

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Reproductive toxicity	: Endocrine system, liver, kidneys (oral, Inhalation). (Bisphenol A (BPA) has been extensively tested in a wide variety of toxicological and biological tests, and has undergone many reviews internationally by a variety of governmental agencies. Many of these studies have focused on reproductive, developmental and endocrine endpoints. However, the human data is limited and insufficient to evaluate reproductive toxicity. While some studies show, or claim to show, target organ toxicity, fertility, or reproductive effects in humans; these studies lack internal and external validity as a result of flawed study design, multiple sources of bias, and lack of control for confounding factors. Numerous animal studies have been conducted and report a range of potential reproductive effects from BPA exposure. Although some studies report reproductive effects, many of these studies suffer from design flaws and reported observations have not been confirmed in larger, more robust studies. Comprehensive reviews of the scientific literature on BPA have focused on several well designed animal studies as a robust foundation for assessing BPA reproductive toxicity (e.g., NTP 1985; Ema et al. 2001; Tyl et al. 2002a, 2002b; Tyl et al. 2008; Delclos et al. 2014). In these studies, BPA was administered to rats and/or mice by the oral route of exposure including doses that far exceed those potentially experienced by humans, including workers. In these studies, either no reproductive toxicity was reported, or treatment-related reproductive effects were reported only at doses where maternal toxicity was observed. Maternal toxicity was manifest as liver toxicity, kidney toxicity, and overall depressions in body weight or body weight gains. The presence of these clear toxic effects was consistent with the role of stress and general systemic toxicity in the development of the reproductive effects at these high doses of BPA. The authors of these studies all concluded that systemic toxicity played a role in the observation of the reproductive effects. By letter dated April 6, 2015, the U.S. Food and Drug Administration ("FDA") of the U.S. Department of Health & Human Services reported that FDA's National Center of Toxicological Research ("NCTR") "recently completed a large scale rodent toxicity study designed to characterize potential effects of BPA in a wide range of endpoints, including reproductive toxicity. The results from the large extent of reproductive, sperm and hormone parameters evaluated in the NCTR study do not support BPA as a reproductive toxicant." Based on the total weight of evidence of the experimental animal data, including the lack of robust epidemiological data for reproductive effects, well-established pharmacokinetic data and the results of FDA's recent large scale toxicity study and using expert judgment, there is insufficient scientific support to associate reproductive toxicity with BPA exposure in the absence of systemic toxicity. Because experimental animal studies have indicated potential for reproductive effects in association with maternal toxicity at high doses, BPA has been classified as a Category 2 suspected human reproductive toxicant as required by OSH)
Specific target organ toxicity (single exposure)	: Not classified
Reproductive toxicity	: Endocrine system, liver, kidneys (oral, Inhalation). (A known amount of product was extracted with a liter of distilled water. The resulting extract solution was used to derive the toxicity parameters. The extract was not teratogenic to frog (<i>Xenopus laevis</i>) embryos at extract concentrations of 1,000 grams per liter (g/l) and not mutagenic to <i>Salmonella typhimurium</i> at concentrations of 2,000 g/l.)
Specific target organ toxicity (single exposure)	: Not classified
Specific target organ toxicity (repeated exposure)	: Not classified
Aspiration hazard	: Not classified
Symptoms/injuries	: As packaged, this material does not present significant health hazards. The hazards below apply to the product if aerosols or dusts are generated from cutting, grinding, or smelting.
Symptoms/injuries after inhalation	: Inhalation of dust may result in itching and upper respiratory tract irritation. Vapors may cause dizziness or suffocation.
Symptoms/injuries after skin contact	: Dusts and particulate matter may cause irritation of the skin.
Symptoms/injuries after eye contact	: Dusts and particulate matter may cause irritation of the eyes.
Symptoms/injuries after ingestion	: Not expected to be an important route of entry into the body. Ingestion of large quantities of the product may cause gastric discomfort or distress.
Chronic symptoms	: 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.
Symptoms/injuries	: As packaged, this material does not present significant health hazards. The hazards below apply to the product if aerosols or dusts are generated from cutting, grinding, or smelting.

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SECTION 12: Ecological information

12.1. Toxicity

No additional information available

12.2. Persistence and degradability

No additional information available

12.3. Bio accumulative potential

No additional information available

12.4. Mobility in soil

No additional information available

12.5. Other adverse effects

Effect on the global warming : No known ecological damage caused by this product.

SECTION 13: Disposal considerations

13.1. Waste treatment methods

Waste disposal recommendations : Dispose in a safe manner in accordance with local/national regulations.

Additional information : The product is not considered hazardous under current EPA hazardous waste regulations. Recycling is the preferred method of disposal. Alternatively, the product may be disposed of in an approved landfill. All wastes should be evaluated in conjunction with applicable solid and hazardous waste regulations and disposed of as appropriate. Empty containers will contain product residues. Observe proper safety and handling precautions. Do not allow empty containers to be used for any purpose except to store and ship original product.

Ecology - waste materials : Avoid release to the environment.

SECTION 14: Transport information

In accordance with DOT

Not regulated for transport

Additional information

Other information : No supplementary information available.

ADR

No additional information available

Transport by sea

No additional information available

Air transport

No additional information available

SECTION 15: Regulatory information

15.1. US Federal regulations

Nylon Reinforced Epoxy Laminate

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

Cured polyester resin (Not Available)

Not listed on the United States TSCA (Toxic Substances Control Act) inventory

This product or mixture does not contain a toxic chemical or chemicals in excess of the applicable de Minimis concentration as specified in 40 CFR §372.38(a) subject to the reporting requirements of section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 and 40 CFR Part 372.

15.2. International regulations

CANADA

No additional information available

EU-Regulations

No additional information available

Classification according to Regulation (EC) No. 1272/2008 [CLP]

Classification according to Directive 67/548/EEC [DSD] or 1999/45/EC [DPD]

Not classified

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15.2.2. National regulations

15.3. US State regulations

California Proposition 65 - This product does not contain any substances known to the state of California to cause cancer and/or reproductive harm

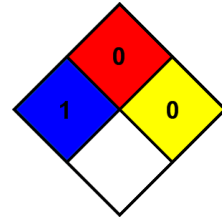
SECTION 16: Other information

Revision date : 08/03/2015
Data sources : ChemIDplus [<http://chem.sis.nlm.nih.gov/chemidplus/rn/116094-23-6>]. GESTIS DNEL Database [[http://dnel-en.itrust.de/nxt/gateway.dll/dnel_en/000000.xml?f=templates\\$fn=default.htm\\$vid=dneleng:ddbeng\\$3.0/](http://dnel-en.itrust.de/nxt/gateway.dll/dnel_en/000000.xml?f=templates$fn=default.htm$vid=dneleng:ddbeng$3.0/)]. ChemADVISOR, Inc. [<https://www.chemadvisor.com/>].

Full text of H-phrases:

Repr. 2	Reproductive toxicity Category 2
Skin Sens. 1	Skin sensitization Category 1
H317	May cause an allergic skin reaction
H361	Suspected of damaging fertility or the unborn child

NFPA health hazard : 1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.
NFPA fire hazard : 0 - Materials that will not burn.
NFPA reactivity : 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.



HMIS III Rating

Health : 1 - Slight Hazard - Irritation or minor reversible injury possible
Flammability : 0 - Minimal Hazard
Physical : 0 - Minimal Hazard

SDS US (GHS HazCom 2012)

This information is based on our current knowledge and is intended to describe the product for the purposes of health, safety and environmental requirements only. It should not therefore be construed as guaranteeing any specific property of the product