SECTION 1: Identification of the substance/mixture and of the company/undertaking

1.1. Product identifier

Product form : Mixture

Product name : Aluminum Skins/Balsa Core Panel

Other means of identification : Gillfab® 5042A, 5242, 5242A

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

Use of the substance/mixture : The panel is used in commercial aircraft flooring, galley panels, cargo containers and bulkheads.

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)

Carc. 1A H350
Aquatic Acute 2 H401

Full text of H-phrases: see section 16

2.2. Label elements

GHS-US labeling

Hazard pictograms (GHS-US) :

GHS08

Signal word (GHS-US) : Warning

Hazard statements (GHS-US) : H350 - May cause cancer
H402 - Harmful to aquatic life

Precautionary statements (GHS-US) : P201 - Obtain special instructions before use
P202 - Do not handle until all safety precautions have been read and understood
P273 - Avoid release to the environment
P280 - Wear protective gloves/protective clothing/eye protection/face protection
P308 + P313 - If exposed or concerned: Get medical advice/attention
P405 - Store locked up
P501 - Dispose of contents/container to ...

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 pulverizing.

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)
Aluminum	(CAS No) 7429-90-5	30 - 90	Not classified
Balsa Wood	N/A	5 - 60	Carc. 1A, H350
Cured Epoxy Adhesive	(CAS No) Proprietary	0.5 - 20	Comb. Dust, H232
MAGNESIUM OXIDE	(CAS No) 1309-48-4	0 - 3	Not classified
Flame Retardant	(CAS No) Proprietary	0 - 2	Acute Tox. 4 (Oral), H302 Carc. 2, H351 Aquatic Acute 2, H401
Manganese	(CAS No) 7439-96-5	0 - 1.5	Aquatic Acute 3, H402
Chromium metal	(CAS No) 7440-47-3	0 - 0.35	Aquatic Acute 1, H400

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.

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 aluminum powder may cause lung effects. Inhalation of metallic dust may be hazardous. Dust and fumes produced during processing should be treated as a dust hazard. Repeated and prolonged inhalation of aluminum powder may cause serious lung disorders... 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.

Symptoms/injuries after skin contact : Dusts and particulate matter may cause irritation of the skin. Repeated prolonged exposure may cause slow-healing skin lesions and allergic reactions.

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 : Use gentle surface application of class D extinguished agent or dry inert granular material (e.g., sand) to cover and ring the burning powder.

Unsuitable extinguishing media : Do not use fire extinguishers rated for Class A,B,or C fires. Do not use water or halogenated fire extinguishing agents. Do not disturb the burning powder or cause mixing of the agent with the burning powder. Do no disturb the burning powder until completely cool.

5.2. Special hazards arising from the substance or mixture

Fire hazard : Product will not burn.

Explosion hazard : 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. Aluminum dust is readily ignitable and explosive when suspended in air. In case of fire: Use extreme care to prevent dust cloud formation.

5.3. Advice for firefighters

Protection during firefighting : Do not enter fire area without proper protective equipment, including respiratory protection. Firefighters should wear a NIOSH approved full-face piece self-contained breathing apparatus (SCBA) operated in positive pressure mode and full turnout or bunker gear.

SECTION 6: Accidental release measures

6.1. Personal precautions, protective equipment and emergency procedures

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 : Move containers from fire area if you can do it without risk. DO NOT USE WATER, FOAM OR CO2. Confining and smothering metal fires is preferable rather than applying water. If impossible to extinguish, protect surroundings and allow fire to burn it out. Do not walk through any dust resulting from damage to product. Prevent entry into waterways, sewers, basements or confined areas. Stop leak if you can do it without risk.

Methods for cleaning up : HEPA Vacuum or wet methods and place in a disposal container.

SECTION 7: Handling and storage

7.1. Precautions for safe handling

Precautions for safe handling : Avoid contact with skin and eyes. Use methods to minimize dust. Do not breathe dust. DO NOT use compressed air or dry sweeping to remove dust from work area. Use a vacuum with adequate filtration system to remove dusts. If an appropriate vacuum is unavailable, only wet-clean-up methods should be used (i.e. misting). Moisture should be added as necessary to reduce exposure to airborne respirable dust.

Hygiene measures : Practice good housekeeping. Wash thoroughly after handling.

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)

No additional information available

SECTION 8: Exposure controls/personal protection

8.1. Control parameters

Aluminum Skins/Balsa Core Panel	
ACGIH	Not applicable
OSHA	Not applicable

Aluminum (7429-90-5)		
ACGIH	ACGIH TWA (mg/m³)	1 mg/m³ (respirable fraction)
ACGIH	Remark (ACGIH)	Pneumoconiosis; LRT irr
OSHA	OSHA PEL (TWA) (mg/m³)	5 mg/m³ (respirable particulate)
OSHA	Remark (US OSHA)	15 mg/m³ (total dust)

Manganese (7439-96-5)		
ACGIH	ACGIH TWA (mg/m³)	0.02 mg/m³
ACGIH	Remark (ACGIH)	CNS impair; A4
OSHA	OSHA PEL (Ceiling) (mg/m³)	5 mg/m³

Balsa Wood		
ACGIH	Not applicable	
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³
NIOSH	NIOSH (TWA) (mg/m³)	1 mg/m³

MAGNESIUM OXIDE (1309-48-4)		
ACGIH	ACGIH TWA (mg/m³)	10 mg/m³
OSHA	OSHA PEL (TWA) (mg/m³)	15 mg/m³

Cured Epoxy Adhesive (Proprietary) Particulates Not Otherwise Regulated	
ACGIH	Not applicable
OSHA	Not applicable

Chromium metal (7440-47-3)		
ACGIH	ACGIH TWA (mg/m³)	0.5 mg/m³ Chemical sampling information
OSHA	OSHA PEL (TWA) (mg/m³)	1 mg/m³ See Appendix C in NIOSH Pocket Guide to Chemical Hazards

Flame Retardant (Proprietary) Particulates Not Otherwise Regulated	
ACGIH	Not applicable
OSHA	Not applicable

Particulates Not Otherwise Regulated (Total Dust)		
ACGIH	ACGIH TWA (mg/m³)	3 mg/m^3 Respirable; 10 mg/m^3 Total dust
OSHA	OSHA PEL (TWA) (mg/m³)	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 : Respiratory protection is not normally required. If appreciable dusts and/or particulate matter are generated during handling or processing, the operation should be evaluated by a professional industrial hygienist to determine the need for respiratory protection. If respiratory protection is deemed necessary, use, as a minimum, a respirator with NIOSH approvals for particulate matter. All provisions of OSHA's Respiratory Protection Standard (29 CFR 1910.134) should be followed. If exposure limits are exceeded or irritation is experienced, NIOSH approved respiratory protection should be worn.

SECTION 9: Physical and chemical properties

9.1. Information on basic physical and chemical properties

Physical state : Solid

Appearance : Flat Metallic Panels.

Color : Colorless.

Odor : Odorless

Odor threshold : No data available

pH : No data 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
Relative vapor density at 20 °C	:	No data available
Relative density	:	0.2-0.8g/cc
Solubility	:	Insoluble. Aluminum dust generated by machine processes may react with water.
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

Water and halogenated hydrocarbons may react with aluminum dust.

10.4. Conditions to avoid

Aluminum dust may generate hydrogren and heat when exposed to water.Water/aluminum powder mixture may be especially hazardous when confined and may react violently with strong oxiders and many halogenated hydrocarons.

10.5. Incompatible materials

Water and halogenated hydrocarbons may react with aluminum dust. Strong oxidizing agents.

10.6. Hazardous decomposition products

Can decompose in a fire emitting toxic fumes and gases such as carbon dioxide, carbon monoxide, various low molecular weight hydrocarbons, oxides of nitrogen, hydrogen cyanide, oxides of zinc, metal oxides and other toxic gases, acrid smoke and fumes.

SECTION 11: Toxicological information

11.1. Information on toxicological effects

Acute toxicity : Not classified

Manganese (7439-96-5)	
LD50 oral rat	9000 mg/kg
ATE US (oral)	9000.000 mg/kg body weight

Flame Retardant (Proprietary)	
ATE US (oral)	500.000 mg/kg body weight

Skin corrosion/irritation	:	Not classified
Serious eye damage/irritation	:	Not classified
Respiratory or skin sensitization	:	Not classified
Germ cell mutagenicity	:	Not classified
Carcinogenicity	:	Suspected of causing cancer.

Balsa Wood	
IARC group	1 - Carcinogenic to humans

Chromium metal (7440-47-3)	
IARC group	3 - Not classifiable

Reproductive toxicity : Not classified

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 : 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 aluminum powder may cause lung effects. Inhalation of metallic dust may be hazardous. Dust and fumes produced during processing should be treated as a dust hazard. Repeated and prolonged inhalation of aluminum powder may cause serious lung disorders. 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.

Symptoms/injuries after skin contact : Dusts and particulate matter may cause irritation of the skin. Repeated prolonged exposure may cause slow-healing skin lesions and allergic reactions.

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.

SECTION 12: Ecological information

12.1. Toxicity

Manganese (7439-96-5)	
EC50 Daphnia	40 mg/l Bowmer, C.T., R.N. Hooftman, A.O. Hanstveit, P.W.M. Venderbosch, and N. Van der Hoeven 1998. The Eco toxicity and the Biodegradability of Lactic Acid, Alkyl Lactate Esters and Lactate Salts. Chemosphere 37(7):1317-1333

Chromium metal (7440-47-3)	
LC50 fish	40.5 mg/l Dorn, P.B., J.P. Salanitro, S.H. Evans, and L. Kravetz 1993. Assessing the Aquatic Hazard of Some Branched and Linear Nonionic Surfactants by Biodegradation and Toxicity. Environ.Toxicol.Chem. 12(10):1751-1762; Hori, H., M. Tateishi, K. Takayanagi, and H. Yamada 1996. Applicability of Artificial Seawater as a Rearing Seawater for Toxicity Tests of Hazardous Chemicals by Marine Fish Species. Nippon Suisan Gakkaishi (Bull.Jpn.Soc.Sci.Fish.) (4):614-622 (JPN) (ENG ABS)
EC50 Daphnia	0.53 mg/l Mount, D.I., and T.J. Norberg 1984. A Seven-Day Life-Cycle Cladoceran Toxicity Test. Environ.Toxicol.Chem. 3(3):425-434 (Author Communication Used); Govindarajan, S., C.P. Valsaraj, R. Mohan, V. Hariprasad, and R. Ramasubramanian 1993. Toxicity of Heavy Metals in Aquaculture Organisms: Penaeus indicus, Perna viridis, Artemia salina and Skeletonema costatum. Pollut.Res. 12(3):187-189
EC50 Daphnia	0.07 mg/l Dorn, P.B., J.P. Salanitro, S.H. Evans, and L. Kravetz 1993. Assessing the Aquatic Hazard of Some Branched and Linear Nonionic Surfactants by Biodegradation and Toxicity. Environ.Toxicol.Chem. 12(10):1751-1762
ErC50 (algae)	8.75 mg/l Stauber, J.L. 1995. Toxicity Testing Using Marine and Freshwater Unicellular Algae. Australas.J.Ecotoxicol. 1(1):15-24

12.2. Persistence and degradability

No additional information available

12.3. Bioaccumulative 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 : 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

Aluminum Skins/Balsa Core Panel		
Not listed on the United States TSCA (Toxic Substances Control Act) inventory		
All components of this product are listed on the Toxic Substances Control Act (TSCA) inventory except for:		
Cured Epoxy Adhesive	CAS No Proprietary	C>=0.50% ; C<=20.00%

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.

Aluminum (7429-90-5)
Listed on United States SARA Section 313

Manganese (7439-96-5)
Listed on United States SARA Section 313

Chromium metal (7440-47-3)	
Listed on United States SARA Section 313	
RQ (Reportable quantity, section 304 of EPA's List of Lists) :	5000 lb

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

15.2.2. National regulations

15.3. US State regulations

California Proposition 65 - This product contains, or may contain, trace quantities of a substance(s) known to the state of California to cause cancer and/or reproductive toxicity

Flame Retardant (Proprietary)				
U.S. - California - Proposition 65 - Carcinogens List	U.S. - California - Proposition 65 - Developmental Toxicity	U.S. - California - Proposition 65 - Reproductive Toxicity - Female	U.S. - California - Proposition 65 - Reproductive Toxicity - Male	No significance risk level (NSRL)
Yes	No	No	No	

Aluminum (7429-90-5)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Manganese (7439-96-5)

U.S. - Delaware - Pollutant Discharge Requirements - Reportable Quantities
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Maine - Air Pollutants - Hazardous Air Pollutants
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Washington - Permissible Exposure Limits - TWAs

Magnesium Oxide (1309-48-4)

U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances

Chromium metal (7440-47-3)

U.S. - Idaho - Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Idaho - Non-Carcinogenic Toxic Air Pollutants - Acceptable Ambient Concentrations
U.S. - Massachusetts - Right To Know List
U.S. - Michigan - Critical Materials List
U.S. - New Jersey - Right to Know Hazardous Substance List
U.S. - New York - Reporting of Releases Part 597 - List of Hazardous Substances
U.S. - Pennsylvania - RTK (Right to Know) List

SECTION 16: Other information

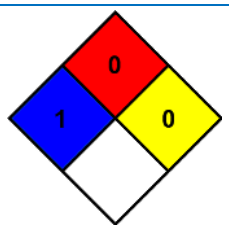
Revision date : 11/06/2015

Data sources : ChemADVISOR, Inc.[https://www.chemadvisor.com]. 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://toxnet.nlm.nih.gov/cgi-bin/sis/search2/f?./temp/~OKqi2W:3.

Full text of H-phrases:

Acute Tox. 4 (Oral)	Acute toxicity (oral) Category 4
Aquatic Acute 1	Hazardous to the aquatic environment - Acute Hazard Category 1
Aquatic Acute 2	Hazardous to the aquatic environment - Acute Hazard Category 2
Aquatic Acute 3	Hazardous to the aquatic environment - Acute Hazard Category 3
Carc. 2	Carcinogenicity Category 2
Comb. Dust	Combustible Dust
H232	May form combustible dust concentrations in air
H302	Harmful if swallowed
H351	Suspected of causing cancer
H400	Very toxic to aquatic life
H401	Toxic to aquatic life
H402	Harmful to aquatic life

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