M.C. GILL CORPORATION

MATERIAL SAFETY DATA SHEET

1. PRODUCT AND COMPANY IDENTIFICATION

M.C.GILL CORPORATION 4056 EASY STREET EL MONTE, CA 91731-1087
Contact Phone (626) 443-6094

Emergency Phone (626) 443-6094

PRODUCT NAME **KEVLAR® N636 HONEYCOMB CORE – ARAMID PAPER COATED WITH PHENOLIC RESIN**

PRODUCT CODES **HK – XXX (DIGIT DESCRIBING CORE CONFIGURATION)**
HK – XXX -- FISTS (DIGIT DESCRIBING CORE CONFIGURATION)

2. COMPOSITION - INFORMATION ON INGREDIENTS

Chemical Ingredients (% by wt.)

COMPONENT	CAS#	%
Cured Phenolic resin		18-80
KEVLAR® paper N636		
Poly terephthaloyl chloride/p-phenylenediamine (PPDT)	26125-61-1	11-69
Poly isophthaloyl chloride/m-phenylenediamine (MPDI)	25765-47-3	2-31
Cured Adhesive	proprietary	1-5

OSHA REGULATORY STATUS

As shipped this material is an inert aramid fiber reinforced honeycomb, which is coated with cured phenolic resin. 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

HK honeycomb is supplied in flat sheets and blocks, brown in color, with slight characteristic odor. Decomposition and combustion products may be toxic. Can decompose in a fire emitting toxic fumes and gases, carbon dioxide, carbon monoxide, hydrogen cyanide, oxides of nitrogen and other toxic and irritation gases can be produced depending on condition of combustion.

N636 papers are made from para-aramid fibers (PPDT) bound with meta-aramid fibrids (MPDI). Neither is likely to present a significant health hazard as received.

When mechanically working core containing N636 aramid fiber in operations such as cutting, machining, grinding, crushing or sanding, airborne respirable fibers may be formed.

POTENTIAL HEALTH EFFECTS

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

SKIN: Skin sensitization has not been observed in human skin tests. However, the mechanical action of the fibers may cause slight skin irritation at clothing binding points.

INGESTION: Ingestion is not expected to be a route of exposure. If ingestion occurs, treat symptomatically.

INHALATION: Inhalation of dust may result in nasal and upper respiratory tract irritation. Overexposure to the respirable fibers by inhalation may cause mild and temporary upper respiratory irritation with discomfort or cough.

CHRONIC EFFECTS/CARCINOGENICITY

This product is an aramid fiber reinforced honeycomb, which is coated with cured phenolic resin. While OSHA does not regulate an aramid (aromatic polyamide) paper as a carcinogen, aramid fiber has been studied by the scientific community for many years it presents a minimal risk to human health and the environment. When mechanically working with these products, some dust may be generated. A percent concentration ratio of KEVLAR® paper is 19-77% (w/w). Generated dust can cause eye irritation, coughing and sneezing. Based on animal testing, prolonged and repeated exposure to excessive concentrations of KEVLAR® fibrids may cause chronic lung disorders.

IARC classified p-aramid respirable fibrils as Group 3, "not classifiable as to carcinogenicity in humans," in October 1996. That is, after reviewing all published toxicological literature on p-aramid, they found no convincing evidence of carcinogenicity.

None of the components present in aramid fiber at concentrations equal to or greater than 0.1% are listed by IARC, NTP, OSHA or ACGIH as a carcinogen.

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 other wise regulated, total dust. By OSHA PEL TWA = 15mg/m^3, ACGIH TLV is not listed. 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.

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

EYES: 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 irritation persists, seek medical attention

INGESTION: Avoid ingestion. Treat symptomatically.

INHALATION: Move individual to fresh air. If not breathing, give artificial respiration immediately, and then call a physician. If breathing is difficult, give oxygen and call a physician.

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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, carbon dioxide, carbon monoxide, hydrogen cyanide, oxides of nitrogen and other toxic and irritation gases can be produced depending on condition of combustion.

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

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6. ACCIDENTAL RELEASE MEASURES

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

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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.

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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	OSHA PEL TWA	ACGIH TLV
KEVLAR® Honeycomb Core	Total dust 15 mg/m^3, 8 hr TWA	N/A
	Respirable dust, 5 mg/m^3, 8 hr TWA	N/A

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9. PHYSICAL AND CHEMICAL PROPERTIES

APPEARANCE: Flat sheets and blocks, brown in color

ODOR: Slight characteristic odor

BOILING POINT: Not Applicable

VAPOR PRESSURE: Not Applicable

SOLUBILITY IN WATER: Unknown

SPECIFIC GRAVITY: Not Applicable

pH: Not applicable

UEL: Not applicable

LEL: Not applicable

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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 DECOMPOSITION PRODUCTS: toxic fumes and gases, carbon dioxide, carbon monoxide, hydrogen cyanide, oxides of nitrogen and other toxic and irritation gases can be produced depending on condition of combustion.

HAZARDOUS POLYMERIZATION: Will not occur

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11. TOXICOLOGICAL INFORMATION

For detailed toxicological information on the components of this material, contact the address listed in Section 1 of this MSDS.

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12. ECOLOGICAL INFORMATION

None found.

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13. DISPOSAL 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 operated at high temperature and is capable of scrubbing out hydrogen fluoride and other acidic combustion products. Contact your local or state environmental agency for specific rules.

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14. TRANSPORT INFORMATION

DOT: Not Regulated

IMO: Not Regulated

IATA: Not Regulated

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15. REGULATORY INFORMATION

INVENTORY STATUS: Aramid Fiber

Inventory	Status
United States (TSCA)	Listed
European Union (EINECS)	Listed
Canada (DSL)	Listed

CERCLA/SUPERFUND, 40 CFR 117.302: This material contains Reportable Quantity (RQ) Substances: none.

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 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.

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.L: NONE

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: NONE

16.OTHER INFORMATION

MSDS STATUS: Revised all sections re: ANSI Z400.1-1998 format

MSDS PREPARED BY M.C. Gill Corporation

04/07/09

END OF MSDS