



MATERIAL SAFETY DATA SHEET

Section 1: Chemical Product and Company Identification

Product/Chemical Name: Aramid Coated with an Acrylic Copolymer
Finish Types: Acrylic Coated Aramid
Chemical Formula: N/A
Other Designations: Woven Aramid (Kevlar® or Twaron®) Fabric
General Use: Industrial
Manufacturer: JPS Composite Materials Corp., 2200 S. Murray Ave., P.O. Box 2627, Anderson, SC 29624, Phone: 1-800-288-0577

Section 2: Composition/Information on Ingredients

Ingredient Name	CAS NUMBER	% Wt. OR % Vol.
Poly(terephthaloyl-chloride/p-phenylene-diamine) fiber	26125-61-1	50-80
Acrylic Copolymer	N/A	20-50

Trace Impurities: N/A

Ingredient	OSHA PEL	ACGIH TLV
Poly(terephthaloyl-chloride/p-phenylene-diamine) fiber	15 mg/m ³ (Total) 5 mg/m ³ (Respirable)	10 mg/m ³ (Inhalable) 3 mg/m ³ (Respirable)
Acrylic Copolymer	N/E	N/E

This product is not classified as a Hazardous Chemical as defined by the OSHA Hazard Communication Standard, 29 CFR 1910.1200.

The percentage will vary depending on the fabric style and the individual component variation. Where specific exposure limits for component dusts are not established, the levels provided for (Total/Inhalable) dust and (Respirable) fraction reflect the classification of Particulate Not Otherwise Regulated (PNOR) by OSHA or Classified (PNOC) by ACGIH.

Section 3: Hazards Identification

***** EMERGENCY OVERVIEW*****

JPS Composite Materials Corp. coated and finished fabrics are stable under normal ambient conditions

Potential Health Effects

Appearance and Odor: Gold to yellow fibers woven into fabrics of varying weight and thickness, depending on the fabric weave style.

Statement of Hazard: Warning! This may cause temporary mechanical irritation of the eyes, skin, or upper respiratory tract. Dust or particulate from machining, grinding or sawing the cured product may cause skin, eye, and upper respiratory irritation and possible dermatitis.

Primary Entry Routes: Eyes - Yes Skin - Yes Inhalation - Yes Ingestion - No

HMIS® Rating: Health - 1 Flammability - 0 Reactivity - 0 Special - None

Potential Health Effects:

Eye: Contact may cause mechanical irritation. Vapor or fumes generated from heating the product may cause irritation. Dust or particulate from machining, grinding, or sawing the cured product may cause mechanical irritation.

Skin: Contact may cause mechanical irritation to the skin and possible dermatitis at clothing contact pressure points such as cuffs or collars. Dust or particulate from machining, grinding, or sawing the cured product may cause mechanical irritation and possible dermatitis.

Inhalation: May cause mechanical irritation to the upper respiratory tract. Vapor or fumes generated from heating the product will cause irritation to the respiratory tract. Dust or particulate from machining, grinding, or sawing the cured product may cause mechanical irritation to the upper respiratory tract.

Ingestion: Very unlikely. If a large amount of the product or the dust or particulate from the machining, grinding, or sawing the cured is swallowed, seek medical attention immediately.

HMIS	
H	1
F	0
R	0
PPE	Sec. 8

Medical Conditions Aggravated by Exposure: Pre-existing conditions, such as respiratory or skin disorders, may be aggravated by exposure to the product, to the vapor or fumes generated from heating the product or to the dust, fiber or particulate from machining, grinding, or sawing the cured product.

Carcinogenic Information: None of the components present in this material at concentrations equal to or greater than 0.1% are listed or regulated by IARC, NTP, OSHA, or ACGIH as a carcinogen

Other:	OSHA (PEL)	ACGIH (TLV)
Exposure limits for cured product dust as [Particulate Not Otherwise Regulated (PNOR) by OSHA or Classified (PNOC) by ACGIH]:	15 mg/m ³ (Total) 5 mg/m ³ (Respirable)	10 mg/m ³ (Inhalable) 3 mg/m ³ (Respirable)

Section 4: First Aid Measures

Eye: In case of contact with the product, the vapor or fumes generated from heating the product or the dust or particulate from machining, grinding, or sawing the cured product, immediately flush eyes with large amounts of water for at least 15 minutes, keeping the eyelids open. Get medical attention immediately.

Skin: In case of contact with the product or the dust or particulate, from machining, grinding, or sawing the cured product, immediately wash skin with a mild soap and room temperature to cool running water. Use a washcloth to help remove the dust or particulate. To avoid further irritation, do not rub or scratch irritated areas. Rubbing or scratching may force the dust or particulate into skin. Get medical attention immediately if the irritation persists.

Inhalation: If excessive inhalation of vapor, fumes, dust, or particulate from the product occurs, remove to fresh air. If not breathing, give artificial respiration, preferably mouth-to-mouth. If breathing is difficult, qualified personnel may administer oxygen. Get medical attention immediately.

Ingestion: Ingestion of the product or the dust or particulate from it is unlikely. If swallowed, get medical attention immediately.

After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: N/A

Special Precautions/Procedures: None

Section 5: Fire-Fighting Measures

Flash Point Method of Determination: Not Determined

Means of Extinction: Use water spray, dry chemical, foam or CO₂ to extinguish fires.

Special Fire Hazard: Avoid exposure through use of a self-contained, positive-pressure breathing apparatus.

Section 6: Accidental Release Measures

Procedures in case of Accidental Release or Leakage: Avoid contact with skin, eyes or clothing (See Section 8). Clean up material, put into a suitable container and dispose of properly (See Section 13).

Section 7: Handling and Storage

Precautions to be taken in Handling and Storage: Store in a cool, dry place. Maintain sealed against contamination from dirt and moisture. Aramid fibers or fabric will be degraded by ultraviolet sunlight and discolored by fluorescent lighting.

Section 8: Exposure Controls/Personal Protection

Eye / Face Protection: Avoid eye contact. Wear coverall goggles, as necessary, to prevent irritation, if airborne dust, fibers or particulate are present.

Skin Protection: Wear protective clothing such as a loose fitting, long sleeved shirt that covers to the base of the neck, long pants and gloves, as necessary, to prevent irritation. Skin irritation is known to occur primarily at pressure points such as around the neck, wrist, waist, and between fingers.

Respiratory Protection: Not ordinarily required. If sufficient dust, fibers or particulates are generated during use of the product or when machining, grinding or sawing the cured product, use a NIOSH approved dust respirator.

Ventilation: Use local exhaust sufficient to control dust, fibers, or particulates generated. If exhaust ventilation is not available or is inadequate, use a NIOSH approved dust respirator.

General Hygiene Recommendations: Before eating, drinking, smoking or using toilet facilities, wash face and hands thoroughly with soap and water. Remove any contaminated clothing and laundry before reuse. Use vacuum equipment to remove dust, fibers or particulate from clothing and work areas. Compressed air is not recommended.

Section 9: Physical and Chemical Properties

Appearance and Odor: Gold to Yellow Fibers woven into fabrics of varying weight and thickness, depending on the fabric weave.

Melting Point (°F/°C).....Aramid: Does not melt, will start carbonize at 800°F/>427°C

Specific Gravity (Water=1).....Not determined

pH of Undiluted Product.....Not determined

Volatile [Percent (%) by Weight].....Not determined

Percent (%) VOC.....Not determined

Solubility in Water.....Insoluble

Section 10: Stability and Reactivity

Stability: Stable under proper handling and storage conditions.

Incompatible Materials: None.

Products Evolved from Heat of Combustion or Decomposition: The products of combustion and decomposition depend on other materials present in the fire and the actual conditions of the fire. Burning will produce carbon and nitrogen oxides, small amounts of hydrogen cyanide, ammonia, aldehydes, aliphatic hydrocarbons, alcohol, organic acids and other unidentified gases and vapors that may be toxic. Avoid inhalation.

Hazardous Polymerization: Will not occur under proper conditions of use. Rapid heating of the product in bulk may produce an uncontrolled exothermic reaction that may char and decompose the finish, generating unidentified gases and vapors that may be toxic. Avoid inhalation.

Section 11: Toxicological Information

Component Toxicity Data: Median Lethal Dose (Species):

Oral (LD₅₀).....Not determined

Inhalation (LC₅₀)....Not determined

Dermal (LD₅₀).....Not determined

Irritation Index, Estimation of Irritation (Species):

Skin.....Aramid Fabric: Possible mechanical irritation

Eyes.....Aramid Fabric: Possible slight mechanical irritation

Inhalation...Aramid Fabric: Possible mild mechanical irritation

Section 12: Ecological Information

Component Ecological Data:

Aramid Fibers.....Essentially non-biodegradable; do not leach, material toxic to flora or fauna

Finishes...Not inhibitory or toxic to microbes commonly found in biological treatment systems: are biodegradable; none appear to enhance foaming; discharge of scoured finishes should not result in increased effluent toxicity.

Section 13: Disposal Considerations

Waste Disposal Methods: Material for disposal should be placed in appropriate sealed containers to avoid potential human and environmental exposure. It is the responsibility of the generator to comply with all federal, state, provincial, and local laws and regulations. We recommend that you contact an appropriate waste disposal contractor and environmental agency for relevant laws and regulations. Under the U.S. Resource Conservation and Recovery Act (RCRA), it is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification.

Section 14: Transport Information**DOT:**

Proper Shipping Name.....Not Regulated
Hazard Class.....Not Regulated
Identification Number.....Not Regulated
Packing Group.....Not Regulated
Label Required.....None

Section 15: Transport Information**SARA Title III:**

Section 302/304 Extremely Hazardous Substance: None

Section 311 Hazardous Categorization: None

Section 313 Toxic Chemicals: None

CERCLA Section 102 (A) Hazardous Substance: None

RCRA Information: Currently, this product is not listed in federal hazardous waste regulations 40 CFR, Part 261.33, paragraphs (e) or (f), i.e. chemical products that are considered hazardous if they become wastes. State or local hazardous waste regulations may also apply if they are different from the federal regulation. It is the responsibility of the user of the product to determine at the time of disposal, whether the product meets relevant waste classification and to assure proper disposal.

WHMIS (Canada): Classification: None

"This product has been classified in accordance with hazard criteria of the "Controlled Products Regulations" and this MSDS contains all the information required by the "Controlled Products Regulations."

Ingredient Disclosure List: None

California Safe Drinking Water and Toxic Enforcement Act of 1986 (Proposition 65):

Warning! The state of California has determined that the following listed component chemicals in this product may cause cancer and/or reproductive toxicity: None

U.S., EPA. TSCA Information: This product is an article as defined by TSCA and is not required to be listed in the TSCA Inventory.

Ozone Depletion Information: This product does not contain or is not manufactured with ozone depleting substances as identified in Title VI, Clean Air Act "Stratospheric Ozone Protection" and the regulations set forth in 40CFR, Part 82.

Section 16: Other Information

Special Precautions: None

Explanation and Disclaimer: Wherever such words or phrases as "hazardous," "toxic," "carcinogen," etc. appear herein, they are used as defined or described under state employee right-to-know laws, Federal OSHA laws or the direct sources for these laws such as the International Agency for Research on Cancer (IARC), the National Toxicology Program (NTP), etc. The use of such words or phrases should not be taken to mean that we deem or imply any substance or exposure to be toxic, hazardous or otherwise harmful.

Any exposure can only be understood within the entire context of its occurrence, which includes such factors as the substance's characteristics as defined in the MSDS, amount and duration of exposures, other chemicals present and pre-existing individual differences in response to the exposure.

The data provided in this MSDS is based on the information received from our raw material suppliers and other sources believed to be reliable. We are supplying you this data solely in compliance with the Federal OSHA Hazard Communication Standard, 29 CFR 1910.1200 and other Federal and state laws as described in Section 15: Regulatory Information.

The information contained in this MSDS is proprietary and confidential to JPS Composite Materials. This MSDS and the information in it are not to be used for purposes other than compliance with the Federal OSHA Hazard Communication Standard. If you have received this MSDS from any other source than JPS Composite Materials or its authorized agent, the information contained in it may have been modified from the original document and it may not be the most current revision.

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