



V2 Aramid Fabrics Safety Data Sheet

SECTION 1 - PRODUCT AND COMPANY IDENTIFICATION

Product Name: V2 Aramid Fabrics
Other names: Multiaxial fabric, stitched fabric, non-crimp fabric, knitted fabric
Synonyms: V, VB, VI, VIX, VT, VTX, VU, VX, VXV
Recommended use: For use in composite or other industrial applications as a reinforcement in combination with other materials.
Restrictions of Use: None
Manufacturer's Name: V2 Composites, Inc.
Address: 770 Lee Road 191 Auburn, Alabama 36830
Telephone: 334-502-3000
Emergency phone number: 334-502-3000
Facsimile: 334-502-3088
Website: www.v2composites.com

SECTION 2 - HAZARDS IDENTIFICATION

OSHA/HCS status: While this material is not considered hazardous by the OSHA Hazard Communication Standard (29 CFR 1910.1200), this SDS contains valuable information critical to the safe handling and proper use of the product. This SDS should be retained and available for employees and other users of this product.

Classification of the substance or mixture: Not classified.

GHS label elements

Signal word: No signal word.

Precautionary Statement: Possible irritant to the skin, eyes, and respiratory tract when processed due to nuisance dust generation.

Physical/Chemical Hazards: May form combustible dust concentrations in air. Prolonged inhalation of respirable dust and respirable fiber particulates at high concentrations can cause lung damage.

Environmental hazards: No specific hazards known.

Other hazards: None

SECTION 3 - COMPOSITION/INFORMATION ON INGREDIENTS

Chemical Name	% by Volume	CAS number
Poly-(para-phenylene-terephthalamide)	80-100%	26125-61-1
Polyester Veil	0-25%	25038-59-9
Sodium Sulfate	<3%	7757-82-6
Polyester Yarn	0-5%	25038-59-9

Fiber Sizing(finish): The fiber itself is non-toxic. It may, however, contain up to 1.2% of a fiber finish. If the product is intended for special applications, e.g. in the food industry, please consult the manufacturer prior to application. So far no impairment of health has been known in cases where the product has been used for its intended application. In cases where the product is heat-treated at temperatures of between 130 and 190°C, the applied fiber finish may evaporate or decompose. If the water is used for further treatment, the waster water generated by the process must be treated in a water purification plant in compliance with local regulations.

Residual Solvents: none



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SECTION 4 - FIRST AID MEASURES

Relevant routes of exposure

Inhalation:	Remove from area to fresh air. If symptoms persist, contact a poison control center, emergency room, or a physician for treatment information.
Eye Contact:	Remove contact lens and pour a gentle stream of warm water through the affected area for 15 minutes. Do not rub or scratch eyes. If irritation persists, contact a poison control center, emergency room, or physician as further treatment may be necessary.
Skin Contact:	Remove contaminated clothing and shoes. Run cold water over the affected area for 15 minutes with mild soap. If irritation persists, seek medical attention.
Ingestion:	Gently wipe or rinse the inside of the mouth with water. Drink plenty of water. Never give anything by mouth to an unconscious person. Contact a poison control center, emergency room, or physician for treatment information.
Recommendations to doctor:	Treat symptomatically

SECTION 5 - FIRE FIGHTING MEASURES

Suitable Extinguishing Media:	Use extinguishing measures that are appropriate to local circumstances and the surrounding environment.
Unsuitable Extinguishing Media:	none known
Specific Hazards from the chemical during a fire:	Carbon oxides, Nitrogen oxides(No_x), volatile organic compounds, Hydrogen cyanide
Special protective actions for fire-fighters:	Wear self-contained breathing apparatus (SCBA), MSHA/NIOSH(approved or equivalent) and full protective gear.

SECTION 6 - ACCIDENTAL RELEASE MEASURES

Personal Precautions:	Do not breathe dust. Use personal protection equipment recommended in Section 8.
Environmental Precautions:	No special precautions are needed in case of a release or spill.
Containment:	This material will settle out of the air. Prevent from spreading by covering.
Methods for clean up:	Use an industrial vacuum cleaner with a high efficiency filter to clean up dust Sweep or gather up material and place in proper container for disposal or recovery. Use vacuuming or wet sweeping methods instead of dry sweeping.

SECTION 7 - HANDLING AND STORAGE

Handling:	Avoid dust formation, do not breath dust and wear personal protective equipment.
Advice on storage compatibility:	Incompatible with strong acids and bases. Keep away from direct sunlight.
Storage:	Store in compliance with the relevant regulations and in accordance with good handling and storage practices.



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SECTION 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

- Exposure Guidelines:** This product does not contain any hazardous materials with occupational exposure limits established by the region specific regulatory bodies.
- Other Guidelines:** Exposure Limits: p-Aramid fibers as such are not subject to any exposure regulation. P-Aramid respirable fiber-shaped particulates(RFP) may be released from pulp, cut-fiber and staple fiber or may be formed during abrasive processing of Twaron and it is recommended to keep these levels below 1 RFP per cm³ of air.
- Engineering Controls:** Use local exhaust or general room/dilution ventilation sufficient to control dust. Proper routine housekeeping should be instituted to ensure dust does not accumulate on surfaces. Also provide eyewash stations.
- Respiratory Protection:** In case of insufficient ventilation wear suitable respiratory equipment. This is required in cases where a maximum concentration of 1 RFP/ml of air is exceeded. **Recommended filter type: P2.**
- Eye Protection:** Generally not required when manually handling yarn. Wear safety glasses with side shields in the vicinity of rapidly rotating yarn processing equipment.
- Hand Protection:** None. Slight skin irritation has been observed in isolated cases: Protective gloves.
- Skin Protection:** Long sleeved shirts and pants are advised.
- Hygiene Measures:** Wash hands before and after breaks. Wear clean, body-covering clothing. Good personal hygiene and the use of barrier creams, caps, protective gloves, cotton coveralls or long sleeved loose fitting clothing will maximize comfort. Use proper ventilation as dust may occur.

SECTION 9 - PHYSICAL AND CHEMICAL PROPERTIES

Physical State:	Solid Fiber
Appearance/Color:	Yellow
Odor:	Odorless
Odor Threshold:	NA
Vapor Pressure:	NA
Vapor Density:	NA
pH:	NA
Density:	1.44 g/cm ³
Solubility (wt.% in water):	Insoluble
Solubility in other solvents:	Strong sulfuric acid
Melting/Freezing Point:	Decomposes
Boiling Point:	NA
Flash Point:	NA
Evaporation Rate:	NA
Flammability:	Not flammable
Explosive limits:	NA
Partition coefficient: n-octanol/water	NA
Auto Ignition Temp:	NA
Decomposition Temp:	>500° C
Viscosity:	NA
Volume % Volatile:	none



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SECTION 10 - STABILITY AND REACTIVITY

Reactivity: Stable under proper handling conditions.

Conditions to avoid: Exposure to UV-rays. Temperatures above 500°C. To avoid thermal decomposition, do not overheat.

Incompatible materials: Strong acids, strong bases

Hazardous Decomposition Products: Carbon monoxide(CO), Carbon dioxide(CO₂), Organic materials, Hydrogen cyanide

Hazardous Polymerization: Hazardous polymerization does not occur.

SECTION 11 - TOXICOLOGICAL INFORMATION

Acute toxicity: Product does not present an acute toxicity hazard based on known or supplied information.

Chemical Name	LB50 Oral	LD50 Dermal	LC50 Inhalation
Poly-(para-phenylene-terephthalamide)	>7500mg/kg (Rat)		

Chronic toxicity: Respirable p-aramid fiber has been classified by the International Agency for Research on Cancer (IARC) as not classifiable as to carcinogenicity to humans (Group 3). Based on animal studies, long term exposures to high doses of respirable fibers could lead to pulmonary inflammation and chronic lung disease.

Carcinogenicity: The table below indicates whether each agency has listed any ingredient as a carcinogen.

Chemical Name	ACGIH	IARC	NTP	OSHA
Poly-(para-phenylene-terephthalamide)		Group 3		

Legend:

IARC: (International Agency for Research on Cancer)
Group 3: Not Classifiable as to Carcinogenicity in Humans

Mutagenicity: Not determined

Target Organ Effects: Skin, respiratory system

SECTION 12 - ECOLOGICAL INFORMATION

Ecotoxicity effects: Contains no substances known to be hazardous for the environment.

Persistence and Degradability: Not readily biodegradable.

Bioaccumulative potential: Not applicable.

SECTION 13 - DISPOSAL CONSIDERATIONS

Disposal Method: This material, as supplied, is not a hazardous waste according to Federal regulations (40 CFR 261). This material could become a hazardous waste if it is mixed with or otherwise comes in contact with a hazardous waste, if chemical additions are made to this material, or if the material is processed or otherwise altered. Consult 40 CFR 261 to determine whether the altered material is a hazardous waste. Consult the appropriate state, regional, or local regulations for additional requirements.

Contaminated packaging: Empty containers should be taken to an approved waste handling site for recycling or disposal.



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SECTION 14 - TRANSPORT REGULATIONS

Classification according to DOT: Not regulated
 Classification according to TDG: Not regulated
 Classification according to MEX: Not regulated

SECTION 15 - REGULATORY INFORMATION

International Inventories: Complies
 DSL Complies

Legend:

TSCA-United States Toxic Substances Control Act Section 8(b) Inventory
 DSL/NDSL-Canadian Domestic Substances List/Non-Domestic Substances List

Federal Regulations Section 313 of Title III of the Superfund Amendments and Reauthorization Act of 1986 (SARA). This product does not contain any chemicals which are subject to the reporting requirements of the Act and Title 40 of the Code of Federal Regulations, Part 372.

SARA 311/312 Hazardous

Categorization
 Acute Health Hazard No
 Chronic Health Hazard No
 Fire Hazard No
 Sudden Release of Pressure No
 Reactive Hazard No

Clean Water Act This product does not contain any substances regulated as pollutants pursuant to the Clean Water Act(40 CFR 122.21 and 40 CFR 122.42).

CERCLA This material, as supplied, does not contain any substances regulated as hazardous substances under the Comprehensive Environmental Response Compensation and Liability Act(CERCLA) (40 CFR 302) or the Superfund Amendments and Reauthorization Act(SARA) (40 CFR 355). There may be specific reporting requirements at the local, regional, or state level pertaining to releases of this material.

State Regulations

California Proposition 65 This product does not contain any Proposition 65 chemicals.

US State Right-to-Know Regulations This product does not contain any substances regulated by state right-to-know regulations.

International Regulations

Canada This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations(CPR) and the SDS contains all the information required by the CPR.
 WHMIS Hazard Class D2B Toxic materials

SECTION 16 - OTHER INFORMATION

The customer is responsible for determining the PPE code for this material.

SDS ISSUE DATE: 5/21/2015
 SDS VERSION NUMBER: 1
 SDS FORMAT: (HCS)(29 CFR 1910.1200(g))
 SDS REVISION NOTES:
 SDS AUTHOR: DLM/ACM

Disclaimer: V2 Composites does not manufacture the components in the product. Component safety data sheets are available upon request. The SDS originates from the component SDS. Reasonable care has been taken in the preparation of this information, but the manufacturer makes no warranty of merchantability or any other warranty, expressed or implied, with respect to this information. The manufacturer makes no representations and assumes no liability for any direct, incidental or consequential damages resulting from its use.