

Material Safety Data Sheet

JPS Composite Materials Corp. Astroquartz II & III Yarn

MSDS No. 231

Date of Preparation: 4-6-00

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Section 1 - Chemical Product and Company Identification

Product/Chemical Name: JPS Composite Materials Corp. Astroquartz II & III Yarn

Finish Types: QS 13

Chemical Formula: N/A

CAS Number: None

Other Designations: Quartz Yarn

General Use: Industrial

Manufacturer: JPS Composite Materials Corp., 101 Slater Road, P.O. Box 242, Slater, SC 29683, Phone 864-836-8011.

Section 2 - Composition / Information on Ingredients

Ingredient Name	CAS Number	% wt or % vol
Filament Amorphous Fused Silica	60676-86-0	98.0 to 99.0%
Silane Coupling Agents	None	0.05 to 0.5%
Weaving Lubricants	None	Less than 0.50%

Ingredient	OSHA PEL		ACGIH TLV		NIOSH REL		NIOSH
	TWA	STEL	TWA	STEL	TWA	STEL	IDLH
Filament Amorphous Fused Silica	15 mg/cuM	N/E	10.0 mg/m ³	N/E	3 Fiber/cc	N/E	N/E
Silane Coupling Agents	N/E	N/E	N/E	N/E	N/E	N/E	N/E
Weaving Lubricants	N/E	N/E	N/E	N/E	N/E	N/E	N/E

Section 3 - Hazards Identification

☆☆☆☆☆ Emergency Overview ☆☆☆☆☆

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

Potential Health Effects

Primary Entry Routes: Inhalation

Target Organs: None

Acute Effects

Inhalation: Mechanical irritation of the mouth, nose and throat

Eye: Direct contact will cause mechanical irritation.

Skin: Transient mechanical irritation. Occasionally there might be skin irritation noted by individuals who are initially exposed to quartz fibers.

Ingestion: Observe individual. If symptoms of GI irritation develop, consult a physician.

Carcinogenicity: IARC, NTP, and OSHA do not list JPS Composite Materials Corp. quartz fabric as a carcinogen.

Medical Conditions Aggravated by Long-term Exposure: Skin, eyes and Respiratory Irritation.

Chronic Effects: None Known (See Section 11)

HMIS	
H	1
F	0
R	0
PPE ^{††}	
Sec. 8	

Section 4 - First Aid Measures

Inhalation: Remove to fresh air; drink water to clear throat and blow nose to expel fibers.

Eye Contact: Flush with water for 15 minutes; get medical attention if irritation persists.

Skin Contact: Wash with soap and water

Ingestion: Consult a physician if G.I. irritation exists.

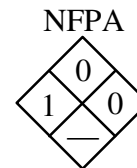
After first aid, get appropriate in-plant, paramedic, or community medical support.

Note to Physicians: None

Special Precautions/Procedures: None

Section 5 - Fire-Fighting Measures

Flash Point: None
Flash Point Method: N/A
Burning Rate: None
Auto-ignition Temperature: None
LEL: None
UEL: None



Flammability Classification: Non-flammable
Extinguishing Media: Water is the best extinguishing media. Or use that which is appropriate for the surrounding area.
Unusual Fire or Explosion Hazards: None
Hazardous Combustion Products: Any sizing, binders or coatings on the quartz fabric might form hazardous decomposition products during a sustained fire. Follow fire-fighting procedures and use proper fire-fighting equipment.
Fire-Fighting Instructions: Do not release runoff from fire control methods to sewers or waterways.
Fire-Fighting Equipment: Because fire may produce toxic thermal decomposition products, wear a self-contained breathing apparatus (SCBA) with a full-face piece operated in pressure-demand or positive-pressure mode.

Section 6 - Accidental Release Measures

Spill /Leak Procedures: Prevent the spread of quartz dust and avoid dust generation conditions. Vacuum clean dusts and fiber. If sweeping is necessary, use a dust suppressant. Those involved in the clean up of quartz fibers should use appropriate personal protective equipment. See Section 8.

Containment: N/A

Regulatory Requirements: Follow applicable OSHA regulations (29 CFR 1910.120).

Section 7 - Handling and Storage

Handling Precautions: Handle properly to prevent the spread of quartz dust or fibers.

Storage Requirements: Store in proper containers to prevent the spread of dusts and fibers. Low humidity levels will increase the spread of dusts and fibers.

Regulatory Requirements: Keep airborne dusts and fiber concentrations below regulatory levels.

Section 8 - Exposure Controls / Personal Protection

Engineering Controls: None

Ventilation: Provide general or local exhaust ventilation systems to maintain airborne dust or fiber concentrations below OSHA PELs (Sec. 2). Local exhaust ventilation is preferred because it prevents contaminant dispersion into the work area by controlling it at its source.

Respiratory Protection: Where airborne dusts or fibers exceed the TLV, use NIOSH approved respirator to protect against nuisance dusts. Seek professional advice prior to respirator selection and use. Follow OSHA respirator regulations (29 CFR 1910.134) and, if necessary, wear an MSHA/NIOSH-approved respirator. Select respirator based on its suitability to provide adequate worker protection for given working conditions and levels of airborne contamination.

Protective Clothing/Equipment: If necessary wear protective gloves or use barrier cream to protect against any mechanical irritation. Eye protection is not required unless fiber levels might cause mechanical irritation of the eyes or local regulations require the use of eye protection. Goggles should then be used. Other protective clothing is not required.

Contaminated Equipment: Separate contaminated work clothes from street clothes. Launder before reuse. Remove this material from your shoes and clean personal protective equipment.

Comments: Never eat, drink, or smoke in work areas. Practice good personal hygiene after using this material, especially before eating, drinking, smoking, using the toilet, or applying cosmetics. Wash hands after handling material.

Section 9 - Physical and Chemical Properties

Physical State: Quartz Yarn
Appearance and Odor: no discernible odor
Odor Threshold: N/A
Vapor Pressure: None
Vapor Density (Air=1): N/A
Formula Weight: None
Density: N/A
Specific Gravity (H₂O=1, at 4 °C): N/A
pH: 6-8 in distilled water.

Water Solubility: Not soluble
Other Solubilities: N/A
Boiling Point: N/A
Freezing/Melting Point: 1650 Deg. C.
Viscosity: N/A
Refractive Index: N/A
Surface Tension: N/A
% Volatile: 0%
Evaporation Rate: N/A

Section 10 - Stability and Reactivity

Stability: JPS Composite Materials Corp. Astroquartz Yarn is stable at room temperature in closed containers under normal storage and handling conditions.

Polymerization: Hazardous polymerization cannot occur.

Chemical Incompatibilities: None

Conditions to Avoid: None

Hazardous Decomposition Products: Thermal oxidative decomposition of JPS Composite Materials Corp. Astroquartz Yarn can produce small amounts of oxides of carbon, nitrogen, and silicone.

Section 11- Toxicological Information

Toxicity Data:*

Fiber Toxicity: Quartz Fiber diameter determines whether the fiber is respirable. NOISH has determined that man-made mineral fibers with diameters equal or greater than 3.5 microns are non-respirable. Respirable fibers will penetrate deep into the lungs. All Quartz continuous filaments have a fiber diameter larger than 3.5 microns and therefore are non-respirable.

Carcinogenicity: The following organizations have found that the continuous fiberglass filaments are not considered to be carcinogenic based on human and animal tests conducted within the last 10 years.

Internal Agency for Research on Cancer- IARC
American Conference of Governmental Industrial Hygienists – ACGIH

Occupational Safety and Health Administration – OSHA

National Toxicity Program NTP 7th Annual Report on Carcinogens.

This would also apply to quartz filaments.

Section 12 - Ecological Information

Quartz Yarn, cleaned or finished is considered to be an inert solid waste and will not cause harm to the environment if spilled or released. This product is not manufactured with, or does not contain and Ozone Depleting Chemicals.

Section 13 - Disposal Considerations

Disposal: Contact your supplier or a licensed contractor for detailed recommendations. Follow applicable federal, state, and local regulations.

Disposal Regulatory Requirements: N/A

Container Cleaning and Disposal: N/A

Section 14 - Transport Information

DOT Transportation Data (49 CFR 172.101):

Shipping Name: JPS
Astroquartz II or III Yarn.

Shipping Symbols: None

Hazard Class: None

ID No.: None

Packing Group: N/A

Label: None

Special Provisions (172.102):
None

Packaging Authorizations

a) **Exceptions:** None

b) **Non-bulk Packaging:** None

c) **Bulk Packaging:** None

Quantity Limitations

a) **Passenger, Aircraft, or Railcar:** None

b) **Cargo Aircraft Only:** None

Vessel Stowage Requirements

a) **Vessel Stowage:** None

b) **Other:** None

Section 15 - Regulatory Information

EPA Regulations:

RCRA Hazardous Waste Number: Not listed (40 CFR 261.33)

RCRA Hazardous Waste Classification (40 CFR 261.): Not classified

CERCLA Hazardous Substance (40 CFR 302.4) listed/unlisted specific per RCRA, Sec. 3001; CWA, Sec. 311 (b)(4); CWA, Sec. 307(a), CAA, Sec. 112

CERCLA Reportable Quantity (RQ): No RQ

SARA 311/312 Codes: N/A

SARA Toxic Chemical (40 CFR 372.65): Not listed

SARA EHS (Extremely Hazardous Substance) (40 CFR 355): Not listed, Threshold Planning Quantity (TPQ): None

OSHA Regulations:

Air Contaminant (29 CFR 1910.1000, Table Z-1, Z-1-A): Not listed

OSHA Specifically Regulated Substance (29CFR 1910.): No

State Regulations: None

Section 16 - Other Information

Additional Hazard Rating Systems: NFPA Hazard Rating:	Health	-	1
.....	Flammability	-	0
.....	Reactivity	-	0
.....	Unusual Hazards	-	None

Disclaimer: The information provided herein is believed to be accurate but is not warranted. Much of the information contained in the Material Safety Data Sheet originates from suppliers; this information cannot be warranted by JPS Composite Materials Corp. to be correct or appropriate for the recipient's use. Recipients are advised to confirm in advance of need that the information is correct, applicable, and suitable to their circumstances. JPS Composite Materials Corp. assumes no legal responsibility for use or reliance on the data in this MSDS.