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**SAFETY DATA SHEET**

Product: Superhydrophobic Powder

Revision Date 1st June 2020

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**1. IDENTIFICATION OF THE SUBSTANCE AND OF THE COMPANY:**

<b>Product Name:</b>	Superhydrophobic Powder   FSX-V1
<b>Synonyms:</b>	Silica Dioxide, Amorphous Silica, Silica Aerogel
<b>Manufacturer:</b>	Pipedream Industries 6050 Peachtree Parkway Suite 240-312 Norcross, Georgia, USA, 30092.
<b>Telephone:</b>	+1 (470) 231-5943
<b>Email:</b>	<a href="mailto:info@pipedreamindustries.com">info@pipedreamindustries.com</a>

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**2. HAZARDS IDENTIFICATION:**

<b>Classification:</b>	Product is not classified as a dangerous material or preparation as defined in Regulation (EC) 1272/2008 (CLP)
<b>Emergency Overview:</b>	Mechanical processing of product may result in lightweight fragments or dust. Inhalation of excessive amounts of dust from the product may cause irritation to the respiratory tract. Dermal contact may cause irritation to the skin.

## POTENTIAL HEALTH EFFECTS:

<b>Inhalation:</b>	Dust may be irritating to respiratory tract. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. See also Section 8.
<b>Eye Contact:</b>	May cause mechanical irritation. Avoid contact with eyes.
<b>Skin Contact:</b>	May cause mechanical irritation and skin drying. Avoid contact with skin. No cases of sensitization in humans have been reported.
<b>Ingestion:</b>	Adverse health effects are not expected. See Section 11
<b>Acute Health Hazards:</b>	Fragments and dust from this product are a physical irritant and may cause temporary irritation of scratchiness of the throat and/or itching and redness of the eyes and skin.
<b>Chronic Health Hazards:</b>	Product is not known to pose any chronic health hazards.
<b>Medical Conditions Aggravated by Exposure:</b>	Excessive inhalation of fragments or dust may aggravate pre-existing chronic lung conditions including, but not limited to, bronchitis, emphysema, and asthma. Dermal contact may aggravate existing dermatitis. Utilize a mask and gloves if any of these issues are present.
<b>Carcinogenicity</b>	Does not contain any substances greater than 0.1% listed by IARC (International Agency for Research on Cancer), NTP (National Toxicology Program), OSHA (Occupational Safety and Health Administration), ACGIH (American Conference for Governmental Industrial Hygienists) or EU (European Union). See also Section 11

This product is composed of amorphous silicon dioxide, also referred to as amorphous precipitated silica. Amorphous silica should not be confused with crystalline silica. Be knowledgeable on the difference before use.

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### 3. COMPOSITION/INFORMATION ON INGREDIENTS:

<b>Synonyms:</b>	Silica Dioxide , Amorphous Silica, Silica Aerogel
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<b>Ingredient:</b>	<b>Percent:</b>	<b>CAS Number:</b>
Amorphous Silica Dioxide	>99%	7631-86-9

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### 4. FIRST AID MEASURES - General Advice:

Consult a physician. Show this safety data sheet to the doctor.

Note to Physician: Treat Symptomatically

<b>If Inhaled:</b>	Move person into fresh air. Drink water to clear throat and blow nose to remove fragments/dust. If not breathing, give artificial respiration. Obtain medical attention if ill effects persist.
<b>In Case Of Skin Contact:</b>	Wash off with soap and plenty of water. May cause irritation and dryness of skin. Obtain medical attention if ill effects persist.
<b>In Case Of Eye Contact:</b>	Rinse thoroughly with plenty of water for at least 20 minutes, occasionally lifting lids. Obtain medical attention if irritation continues
<b>If Swallowed:</b>	Rinse mouth with water. Do not induce vomiting. Never give anything by mouth to an unconscious person. Seek medical attention if irritation, discomfort or vomiting persists.

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## 5. FIRE-FIGHTING MEASURES:

<b>Flammability Properties:</b>	N/A
<b>Auto Ignition Temperature:</b>	N/A
<b>Flash Point:</b>	N/A
<b>Suitable Extinguishing Media:</b>	N/A

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## 6. ACCIDENTAL RELEASE MEASURES - Personal Precautions:

Use personal protective equipment (mask and gloves). Avoid dust or fragment formation. Avoid breathing dust or fragments. Ensure adequate ventilation. Use personal protective equipment as necessary.

<b>Environmental Precautions:</b>	Material is not soluble in water. Might float in sewage systems causing excess pressure. Dispose of powder in garbage or conventional means. The material is environmentally safe to dispose of in traditional garbage disposal methods.
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## 7. Handling and Storage:

<b>Precautions for Safe Handling</b>	Wear a certified mask and impermeable gloves while handling material. Avoid contact with skin and eyes. Avoid dust formation. Do not breathe dust. Provide appropriate exhaust ventilation at machinery and at places where dust can be generated. Do not create a dust cloud by using a brush or compressed air.
<b>Conditions for Safe Storage</b>	Store in a sealed container. Do not store together with volatile chemicals as they may be adsorbed onto product.

	Store at ambient conditions. Keep away from heat and sources of ignition. Keep in properly labeled containers.
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## 8. Exposure Controls/ Personal Protection:

<b>Synthetic Amorphous Silica</b>	6 mg/m <sup>3</sup> TWA OSHA PEL*
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**\*Equivalent to 20 mppcf; 54 FR 2701**

Appropriate engineering controls:

Use with adequate local exhaust ventilation to minimize exposures. Provide local exhaust ventilation where product is processed in a manner that generates dust.

Individual protection measures:

### **Respiratory protection:**

If exposures exceed the occupational exposure limits or if inhalation of dust results in experiencing irritation, an appropriate certified particulate respirator is recommended. Selection of respiratory protection depends on the contaminant type, form and concentration. Select and use in accordance with OSHA 1910.134 or other applicable national regulations and good Industrial Hygiene practice.

### **Skin protection:**

Impervious gloves recommended for handling products. Long-sleeved and longlegged work clothing are also advised.

### **Eye protection:**

Safety glasses with side shields or dust goggles recommended.

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## 9. Physical Appearance and Chemical Properties

<b>Odor Threshold</b>	N/A
<b>Melting Point/ Freezing Point</b>	1700 C
<b>Flash Point</b>	N/A

<b>Flammability</b>	Not Flammable
<b>Flammability Limits LEL:</b>	N/A
<b>Vapor Pressure:</b>	N/A
<b>Relative Density</b>	0.25
<b>Bulk Density</b>	60-150 Kg/m <sup>3</sup>
<b>Partition Coefficient</b>	Not Available
<b>Decomposition Temperature</b>	> 300 C
<b>pH</b>	3.0-6.5
<b>Boiling Point</b>	2230 C
<b>Evaporation Rate</b>	N/A
<b>VOC</b>	N/A
<b>UEL</b>	N/A
<b>Vapor Density</b>	N/A
<b>Solubility</b>	Insoluble in water   Soluble in Acetone, Hexane, Ethanol
<b>Auto-Ignition Temperature</b>	N/A
<b>Viscosity</b>	N/A

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## 10. Stability and Reactivity

<b>Reactivity</b>	Not Reactive under normal conditions of use
<b>Chemical Stability</b>	Stable
<b>Possibility of Hazardous Reactions</b>	None Known
<b>Conditions to Avoid</b>	Avoid prolonged exposure without

	protective equipment
<b>Incompatible Materials</b>	Avoid Strong Acids and Bases
<b>Hazardous decomposition products</b>	Under recommended usage conditions, hazardous decomposition products are not expected.

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## 11. Toxicological Information

### Acute effects of exposure:

**Inhalation:** Inhalation of dust may cause temporary irritation of the mucous membranes and upper respiratory tract.

**Ingestion:** No adverse effects expected, however, do not ingest.

**Skin contact:** Handling may cause dryness and temporary irritation of the skin.

**Eye contact:** Contact may cause irritation with redness and tearing. Dust may cause abrasive injury.

**Chronic Effects:** None known.

**Sensitization:** Components are not known to be sensitizers.

**Germ Cell Mutagenicity:** None of the components have been shown to cause germ cell mutagenicity.

**Reproductive Toxicity:** Components are not reproductive toxins.

**Acute Toxicity Values:** Components are not acutely toxic.

**Carcinogenicity:** Components are not carcinogenic

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## 12. Ecological Information

<b>Ecotoxicity Values</b>	No Data is Available
<b>Persistence and degradability</b>	No Data is Available
<b>Bioaccumulative potential</b>	No Data is Available
<b>Mobility in soil</b>	No Data is Available
<b>Other adverse effects</b>	None known

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### 13. Disposal Considerations:

Dispose in an approved landfill in accordance with federal, state / provincial, and local regulation. Cover promptly to avoid dust generation. This product is not regulated as a hazardous waste under US RCRA regulations.

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### 14. Transport Information

	UN Number	Proper Shipping Name	Hazard Class	Packing Group	Enviromental Hazards
<b>DOT</b>		Not Regulated			
<b>TDG</b>		Not Regulated			
<b>IMDG</b>		Not Regulated			
<b>IATA</b>		Not Regulated			

Transport in bulk (according to Annex II of MARPOL 73/78 and the IBC Code): Not applicable – product is transported only in packaged form.

Special precautions: None known.

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### 15. Regulatory Information

Safety, health, and environmental regulations specific for the product in question.

**CERCLA:** This product is not subject to CERCLA release reporting. Many states have more stringent release reporting requirements. Report spills as required under federal, state and local regulations.

**SARA Hazard Category (311/312):** Chronic Health

**EPA SARA 313:** This product contains the following chemicals regulated under SARA Title III, section 313: None

**EPA TSCA Inventory:** This substance complies with the Toxic Substances Control Act Section 8(b) Inventory

**California Proposition 65 WARNING:** This product is not covered under PROP 65



**CANADIAN REGULATIONS:** All chemical substances in this product are included on or exempted from the Canadian Domestic Substance List (DSL).

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## 16. Other Information

Employers should use this information only as a supplement to other information gathered by them, and should make independent judgement of suitability of this information to ensure proper use and protect the health and safety of employees. This information is furnished without warranty, and any use of the product not in conformance with this Material Safety Data Sheet, or in combination with any other product or process, is the responsibility of the user.

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