1. Identification
Product Name: MiniFIBERS Rayon Fibers
Synonyms: Viscose Rayon, Regenerated Cellulose
Manufacturer: MiniFibers Inc.; 2923 Boones Creek Road; Johnson City, TN 37615 USA
Telephone: Information: (423) 282-4242  Emergency: (423) 282-4242
Date Prepared: April 2013

2. Hazard Identification
This product is not hazardous under the criteria of U.S. Occupational Safety and Health Standard 29 CFR 1910 Subpart Z and United Nations GHS Parts 2, 3, and 4.

The product is coated with finishes which do not present a significant health hazard in their normal use. If heated to elevated temperatures (above 130°C) during processing, these finishes can degrade and generate off gases which may contain small amounts of chemicals. Local exhaust ventilation is recommended.

3. Composition / Information on Ingredients

<table>
<thead>
<tr>
<th>Substance</th>
<th>CAS No.</th>
<th>EC No.</th>
<th>Concentration By Weight</th>
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</thead>
<tbody>
<tr>
<td>Cellulose (Rayon)</td>
<td>68442-85-3</td>
<td>270-493-7</td>
<td>&gt;99%</td>
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<tr>
<td>Additives (proprietary spin finish)</td>
<td>-</td>
<td>-</td>
<td>&lt;1%</td>
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4. Emergency & First Aid Measures
Routes of Exposure:
- Inhalation: Inhalation of fibers, fiber dust, or vapors may cause respiratory irritation. Move to fresh air if effects occur. Consult a physician if symptoms develop.
- Skin: If thermal burn, cool with water and seek immediate medical attention; do not attempt to peel molten fibers from skin. Non-thermal contact with fibers may cause mechanical irritation of the skin. Wash off with soap and water, and consult a physician if symptoms develop.
- Skin Absorption: A single prolonged skin exposure is not likely to result in the material being absorbed through the skin in harmful amounts. However, cleansing the skin after use is advisable. Consult a physician if symptoms develop.
- Eyes: Fibers or fiber dust may cause irritation or scratch the surface of the eyes. Flush with water to remove particles; remove contact lenses if present and part eyelids with fingers to ensure complete flushing. Consult a physician if symptoms develop.
- Ingestion: Ingestion is not likely to occur in the available physical form. If ingested, rinse mouth with water and consult a physician. Contaminated clothing does not need to be removed.

Personal protective equipment is not required for first-aid responders.

5. Fire Fighting Measures / Fire & Explosion Hazard Data
Flash Point: No data available
Flammable Limits: Not determined
Extinguishing Media: Water, CO2, dry chemicals, foam, fog.
Hazardous Combustion Products: May include, but are not limited to, CO and CO2.
Unusual Fire & Explosion Hazards: None known.
Fire Fighting Procedures: Keep unnecessary and unprotected personnel away. Avoid excessive inhalation of smoke or vapors. Keep product and surrounding areas cool by spraying with water. If outdoors, fight fire from an upwind position.
Special Protective Equipment: Firefighters should be equipped with positive pressure self-contained breathing apparatus (SCBA) and standard protective fire fighting clothing (helmet, eye protection, overalls, boots, and gloves) when fighting all indoor fires and any significant outdoor fires.

6. Accidental Release Measures / Steps to be Taken if Material is Released or Spilled
Personal Precautions: None needed.
Environmental Precautions: None needed.
Methods for Cleanup: Vacuum or sweep up and place in a standard disposal container. To more effectively control fiber dust, avoid the use of air jets.

7. Precautions for Safe Handling & Storage
Precautions for Safe Handling: No special handling has been shown to be necessary.
Conditions for Safe Storage: Avoid overslacking to prevent collapse or breakage of the package. Do not store near sources of ignition or incompatible substances.
Other Precautions: None

8. Exposure Control Measures / Personal Protection
Exposure Guidelines: Fiber dust should be considered a nuisance dust, i.e. particulates (not otherwise classified):
ACGIH Threshold Limit Value: 10 mg/m³ total dust; 3-mg/m³ respirable dust
OSHA Permissible Exposure Limit: 15 mg/m³ total dust; 5-mg/m³ respirable dust

Engineering Controls:
- Local exhaust ventilation is recommended to reduce exposure to fiber dust and vapors.

Specific Personal Protective Equipment:
- Respiratory: For operations where inhalation exposure can occur, a NIOSH approved dust mask/respirator is recommended.
- Eye: For operations where eye contact can occur, eye protection such as goggles or safety glasses is recommended.
Hand: Protective gloves not required.
Skin/Other: Not required.
Work/Hygienic Practices: Maintain good housekeeping to control dust accumulation. To more effectively control fiber dust, avoid the use of air jets to blow off equipment; use vacuums instead.

9. Physical & Chemical Properties / Characteristics
Chemical Formula: \((C_6H_{12}O_6)_n\)  
Appearance: White or off-white solid  
Odor: No odor  
Flash Point: No data available  
Evaporation Rate: Does not apply  
Flammability: Non-flammable  
Vapor Pressure: Does not apply  
Partition Coefficient: No data available  
Auto-Ignition Temp: >400°C  
Decomposition Temp: >175°C  
Solubility: Not soluble  
Vapor Density: Does not apply  
Specific Gravity: 1.5 g/cm³  
Partition Coefficient: No data available

10. Stability & Reactivity Data
Reactivity: Data not available.  
Stability: Stable under normal conditions.  
Hazardous Polymerization: Not known to occur.  
Conditions to Avoid: Temperatures above 300°C.  
Incompatible Materials: Strong oxiders and bases, some strong acids.  
Hazardous Decomposition Products: Thermal decomposition products may include CO, ethylene glycol and other C, H, and O compounds varying in chemical structure and molecular weight.

11. Toxicological Information / Health Hazard Data
Health Hazards (Acute and Chronic): No data available.  
Carcinogenicity:  
NTP: Not listed.  
IARC: 3 - Not classifiable as to its carcinogenicity to humans.  
OSHA: Not regulated.  
Signs and Symptoms of Exposure: No data available.  
Medical Conditions Aggravated by Exposure: Some individuals, e.g. with asthma, bronchitis, or allergies, are likely to be intolerant of high concentrations of airborne fibers, fiber dust, or vapors when processing.

12. Ecological Information
Toxicity: No data available.  
Persistence and Degradability: No data available.  
Bioaccumulative Potential: No data available.  
Mobility in Soil: No data available.  

13. Disposal Considerations
Waste Disposal Method: Dispose of in accordance with all applicable governmental regulations for non-hazardous solid waste. Disposal via septic or sewage systems is not recommended. Recycling of corrugated packaging is encouraged where possible. Other packaging may be disposed of with product. Standard disposal containers are acceptable.

14. Transport Information
Proper Shipping Name: Rayon Staple Fibers  
U.S. DOT: Not regulated.  
U.S. NMFC Item Number: 68310  
ICAO/IATA: Not regulated.  
HTC Number: 5504.10  
IMDG: Not regulated.  
U.N. Number: None  
Canada TDG: Not regulated.

15. Regulatory Information
International:  
Canada: DSL/NDSL: Included on the Canadian Domestic Substance List.  
Canada: WHMIS: Not a controlled product.  
Europe: Not classified as dangerous according to Directive 1999/45/EC.  
Federal (U.S.):  
EPA: Not regulated.  
OSHA: Not hazardous under the criteria of Occupational Safety and Health Standard 29 CFR 1910 Subpart Z.  
State:  
CA: Proposition 65: Does not contain chemicals known to the State of California to cause cancer or reproductive toxicity.

16. Other Information

Disclaimer: To the best of our knowledge, the information contained herein is accurate. However, we cannot assume any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of the suitability of any material is the sole responsibility of the user. All materials may present unknown hazards and should be used with caution. Although certain hazards are described herein, we cannot guarantee that these are the only hazards which exist.