



**Claremont  
Flock**

**SAFETY DATA SHEET  
Dyed Rayon Cut Fiber**

**Section 1 – IDENTIFICATION**

Material Identification-

Material Name: **Dyed Rayon Cut Fiber**

Description: Precision Cut within the approximate range of ½ mm to 6 mm

MANUFACTURER:

CLAREMONT FLOCK, Division of Spectro Coating Corp.  
107 SCOTT DRIVE  
LEOMINSTER, MA 01453

Phone Numbers-

Product Information: (978)534-6191  
Emergency: (978)534-6191  
Transport Emergency: CHEMTREC: 1-800-424-9300

Flock  
330100  
330101  
330103  
330104  
330108  
330111

**Section 2 – HAZARD(S) IDENTIFICATION**

This product, as shipped, has not been classified as a hazardous substance in accordance with US regulations.

The following hazards can exist from product use in poorly maintained flock machines, air handling systems and areas that exhibit poor housekeeping methods:

- Fiber fly (dust) can cause eye or skin irritation. See section 4, First Aid Measures
- Individuals with a respiratory sensitivity may be intolerant to high levels of airborne fiber. See section 4, First Aid Measures
- Accumulated fiber dust can lead to a fire hazard. See section 5, Fire Fighting Measures.

**Section 3 – COMPOSITION INFORMATION ON INGREDIENTS**

**Ingredients:**

Viscose Rayon

**Cas No.**

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Dyed Rayon Cut Fiber may be treated with any/all of the following ingredients:

Direct Dyes

Varies

Inorganic Salt

7783-20-2

Alunite Derivative

Proprietary

Anticaking Agent

Proprietary

Antistatic Agent

Proprietary

Cationic Starch Ether	--
Fatty Acid Condensation Product	Proprietary
Fatty Alcohol Derivative	Proprietary
Hydrolizable Gallo Tannis	Proprietary
Metallic Sulfate	Proprietary
Metallic Salt	Proprietary
pH Adjuster	--

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#### Section 4 - FIRST AID MEASURES

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##### Potential Health Effects:

As shipped, Flock does not pose a hazard. Particles of Flock may cause mechanical irritation when used in production processes.

Routes of Exposure: Inhalation? Yes  
 Skin? Yes  
 Eyes? Yes

##### Inhalation:

If fibers and/or dust are inhaled, remove the effected person(s) to a fresh air environment. If breathing difficulty persists, seek medical attention.

Manufacturing operations that generate respirable fibers may have a higher incidence of Interstitial Lung Disease. The connection between Interstitial Lung Disease and respirable fibers created in the flocking process, is currently begin investigated.

##### Skin Contact:

In general, skin irritation has not been produced in human patch tests; however, a small percentage of subjects may respond to prolonged contact with redness of skin. Significant skin permeation and systemic toxicity after contact appears unlikely. There are no reports of human sensitization. If skin contact does occur, flush skin with cold water. Wash contaminated clothing before reuse.

##### Eye Contact:

If particles contact the eye, mechanical irritation with tearing, pain or blurred vision may result. In case of contact, immediately flush eyes with plenty of water, for at least 15 minutes. Seek medical attention if needed.

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#### Section 5 - FIRE FIGHTING MEASURES

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### Flammable Properties-

Flash Point: No data available  
Autoignition: 420 °C (788 °F)  
Autodecomposition: 300 °C (572 °F)

### Unusual Fire and Explosion Hazards:

When excessive flock dust becomes airborne, a moderate explosive hazard develops. Can be ignitable if pressure builds at a substantial rate.

### Extinguishing Media:

Use water, carbon dioxide, or dry chemical to extinguish fires.

### Fire Fighting Instructions:

Evacuate personnel to a safe area. Keep personnel removed and upwind of fire. Wear self-contained breathing apparatus. Wear full protective equipment.

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## Section 6 - ACCIDENTAL RELEASE MEASURES

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### Spills:

Wear appropriate NIOSH approved respirator (refer to 29 CFR 1910.134) and clean up using methods that minimize the formation of airborne dust.

### Disposal:

Waste disposal should be in accordance with existing federal, state and local environmental regulations.

### Personal Protective Equipment-

#### Eye/Face Protection:

Wear goggles (refer to 29 CFR 1910.133) when the possibility exists for eye or face contact from airborne material.

#### Respiratory Protection:

Institute a formal respiratory protection program in accordance with OSHA regulations, CFR 1910.134.

Designate flocking rooms and screening rooms as areas where use of personal respiratory protection is required. When in these areas, workers should be required to wear at a minimum, NIOSH certified approval class N95 dust respirators.

Workers performing blow-downs or other removal of flock using compressed air, should wear full-facepiece, Powered Air-Purifying Respirator (PARP) equipped with High Efficiency Particulate Air (HEPA) filters.

#### Protective Clothing:

Wear gloves (refer to 29 CFR 1910.132) and clothing, as appropriate, if potential exists for skin irritation from contact with fiber particles.

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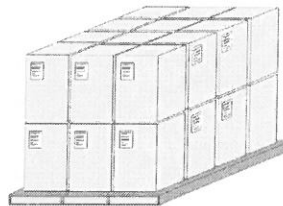
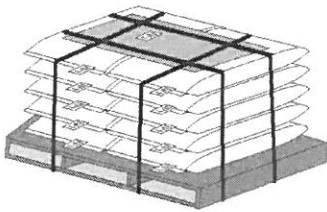
### Section 7 - HANDLING AND STORAGE

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#### Handling (Personnel):

Personnel should wear suitable protective clothing, including eye protection (goggles or face shield) and industrial gloves. See section 6 for proper PPE. Avoid contact with eyes. Wash thoroughly after handling.

#### Storage:



Fiber is packed in bales and cartons. Do not stack bales and cartons more than 2 high.

Keep containers of fiber tightly sealed. Store in a cool, dry, well ventilated area. Keep away from heat, sources of ignition and direct sunlight. Keep away from incompatible materials, such as strong oxidizing materials.

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### Section 8 - EXPOSURE CONTROLS/PERSONAL PROTECTION

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#### Engineering Controls-

To minimize the potential for personal injury, loss of life or property damage due to fire and explosion hazards, OSHA recommends the following:

A hazard assessment should be conducted by each facility using flock material, and appropriate measures should be taken to minimize the risk of ignition from ignition

sources. The assessment should verify that the facility is in compliance with all aspect of 29 CFR 1910.307 "Hazardous (classified) locations".

As part of determining compliance with 29 CFR 1910.307, the facility should conduct the testing outlined in National Materials Advisory Board (NMAB) 353-3-80. The testing should be performed on representative samples of the flock material. This testing will help determine if the dust produced from the handling and processing of this material meets the Class II hazardous materials definition. [Note: Some explosive dusts, not considered to be Class II dusts, still can present an explosion hazard in the workplace. This can occur when these non-Class II dusts are in the presence of a strong ignition source, such as a small fire.] Additional testing may be required to determine the explosive hazard of dusts that are not in the Class II category. Testing procedures should be conducted following either the American Society for Testing and Materials (ASTM) or the Pittsburgh Research Laboratory (formerly a part of the Bureau of Mines).

Suitable electrical equipment designed for Class II locations should be used, where the need has been established based on the material's explosibility properties as determined by the NMAB 353-3-80 testing.

Appropriate electrical equipment should be used in locations that are hazardous because of the presence of easily ignitable fibers or flyings but in which such fibers or flyings are not likely to be in suspension in the air in quantities sufficient to produce ignitable mixtures (Class III Locations).

Aggressive housekeeping procedures, especially in the "flocking" area(s) should be implemented.

Strict control of fugitive/stray fibers by enclosure of process equipment should be considered if determined not to increase the hazard potential.

All appropriate equipment and components in the application/process area(s) should be installed and grounded in accordance with OSHA and NEC requirements.

All work areas should be equipped with adequate ventilation to minimize the build-up of air-borne particles.

Environmental controls related to relative humidity should be installed to reduce potential static electricity, if appropriate.

To minimize the potential for personal injury due to inhalation of flock material, NIOSH recommends the following:

Reduce dust exposures-

Install central vacuum system in order to eliminate use of compressed-air blowdowns.

Install local exhaust ventilation around flocking modules.

Inspect existing ventilation systems for leaks and broken seals. Make repairs as necessary.

Exhaust open-topped process cyclones through particulate filters or discharge to outside.

Institute a non-smoking policy, especially in areas where flock is handled.

#### Personal Protective Equipment-

##### Eye/Face Protection:

Wear goggles (refer to 29 CFR 1910.133) when the possibility exists for eye or face contact from airborne material.

##### Respiratory Protection:

Institute a formal respiratory protection program in accordance with OSHA regulations, CFR 1910.134.

Designate flocking rooms and screening rooms as areas where use of personal respiratory protection is required. When in these areas, workers should be required to wear at a minimum, NIOSH certified approval class N95 dust respirators.

Workers performing blow-downs or other removal of flock using compressed air, should wear full-facepiece, Powered Air-Purifying Respirator (PARP) equipped with High Efficiency Particulate Air (HEPA) filters.

##### Protective Clothing:

Wear gloves (refer to 29 CFR 1910.132) and clothing, as appropriate, if potential exists for skin irritation from contact with particles.

#### Recommended Respirable Dust Exposure Limits-

##### For An 8 Hour Work Shift:

Particulates Not Otherwise Regulated (PNOR)

- OSHA PEL is 5 mg/m<sup>3</sup>

Particulates Not Otherwise Classified (PNOC)

- ACGIH TLV is 3 mg/m<sup>3</sup>

Respirable Dust Limit Proposed for Essentially Non-Toxic Particles (Morrow et al. 1991)

- 1 mg/m<sup>3</sup>

##### For A 16 Hour Work Shift:

Particulates Not Otherwise Regulated (PNOR)

- OSHA PEL is 2.5 mg/m<sup>3</sup>

Particulates Not Otherwise Classified (PNOC)

- ACGIH TLV is 1.5 mg/m<sup>3</sup>

Respirable Dust Limit Proposed for Essentially Non-Toxic Particles (Morrow et al. 1991)

- 0.75 mg/m<sup>3</sup>

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## Section 9 - PHYSICAL AND CHEMICAL PROPERTIES

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Boiling Point: Solid  
Melting Point: Does not melt  
Specific Gravity: 1.52  
Appearance/Odor: Fiber Form, Odorless

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## Section 10- STABILITY AND REACTIVITY

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Reactivity: Stable (also see Section 5)  
Materials To Avoid: Not applicable  
Solubility In Water: Insoluble

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## Section 11 - TOXICOLOGICAL INFORMATION

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Carcinogenicity: NTP? No    IARC MONOGRAPHS? No    OSHA REGULATED? No

Health Hazards (Acute and Chronic):

Recent studies have been performed to evaluate the association between dust and fiber in NYLON flocking operations and interstitial lung disease. A medical survey conducted by NIOSH showed that workers exposed to processes with a high dust percentage had more frequent work-related symptoms that were consistent with interstitial lung disease. In addition, these symptoms were associated with job assignments in areas of the plants that had generally higher dust exposure (flocking and compressed air blow-down of flock and dust) and increased hours or days worked per week.

Preliminary toxicological studies point to respirable fragments of NYLON as a plausible etiologic agent of interstitial lung disease. Components of the flock finish or other airborne agents can not be ruled out as possible contributors to this condition. Due to the uncertainty surrounding the actual etiology of the disease, preventive measures must be taken to limit workers' exposure to respirable particulate dust in NYLON flocking processing facilities.

Existing flock studies have not established a recommended occupational exposure level for NYLON associated dust. Additional research is being conducted to determine if the risks for the same or similar diseases exist among flock workers who produce or apply other types of flock made from NON-NYLON fibers.

Facilities using this material should acquaint themselves with existing and ongoing studies related to interstitial lung disease conducted by NIOSH. The findings of recent NIOSH studies have been published in the following documents:

Castellan, Robert M., et al. "Occupational Respiratory Disease in Nylon Flock Workers, An Abstract For Cotton and Other Organic Dusts Conference", NIOSH, January 1999.

Washko, Rita, M.D., et al. "Health Hazard Evaluation Report, HETA 96-0093-2685, Microfibers, Inc., Pawtucket, R.I.", NIOSH, April 1998.

Kern, David G., M.D., et al. "Flock Worker's Lung: Chronic Interstitial Lung Disease in the Nylon Flock Industry", *American College of Physicians-American Society of Internal Medicine*, August 15, 1998, vol. 129, no.4, pp. 261-272.

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## Sections 12 to 15

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Note: Since other Agencies regulate this information, OSHA will not be enforcing Sections 12 through 15 ((29 CFR 1910.1200(g)(2)).

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## Section 16 – OTHER INFORMATION

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Claremont Flock provides the information contained in this document in good faith but makes no representation as to its comprehensiveness or accuracy. This document is intended only as a guide to the appropriate precautionary handling of the material by a properly trained person. Claremont Flock makes no representations, or warranties, either express or implied, including without limitation any warranties of merchantability, or fitness for a particular purpose with respect to the information set forth herein or the product to which the information refers. Accordingly, Claremont Flock will not be responsible for damages resulting from use of or reliance upon this information.

SDS UPDATE STATUS: 05/4/2015

## DEFINITIONS

1. Flocking – the process in which fine particles, most commonly short textile fibers, are applied to surfaces for decorative or functional purposes
2. ACGIH – American Conference of Governmental Industrial Hygienists



3. NIOSH – National Institute for Occupational Safety and Health
4. OSHA – Occupational Safety and Health Association
5. PEL – Permissible Exposure Limit
6. PNOC – Particles Not Otherwise Classified
7. PNOR – Particles Not Otherwise Regulated
8. TLV – Threshold Limit Value