**SECTION 1: IDENTIFICATION**

**Product Identifier**

**Product Form:** Mixture

**Product Name:** Solid Fiber Sheets

**Synonyms:** Solid Fiber Tier Sheets, Solid Fiber Slip Sheets

**Intended Use of the Product**

Packaging.

**Name, Address, and Telephone of the Responsible Party**

**Company**

International Paper

6400 Poplar Avenue

Memphis, TN 38197

Tel.: 901-419-4848

**Emergency Telephone Number**

**Emergency Number:** 1-800-424-9300 (North America)/ 1-703-527-3887 (International)

CHEMTREC – TOLL FREE 24 HOUR EMERGENCY TELEPHONE NUMBER

**SECTION 2: HAZARDS IDENTIFICATION**

This product is not hazardous in the form in which it is shipped by the manufacturer but may become hazardous by downstream activities (e.g., slitting, cutting, pulverizing) that reduce its particle size. Those hazards are described below.

**Classification of the Substance or Mixture**

**Classification (GHS-US)**

Combustible Dust

Full text of H-phrases: see section 16

**Label Elements**

**GHS-US Labeling**

**Signal Word (GHS-US)**: Warning

**Hazard Statements (GHS-US)**: If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.

**Other Hazards**

Exposure to dust from processing this product may aggravate those with pre-existing eye, skin, or respiratory conditions.

**Unknown Acute Toxicity (GHS-US)**: Not available

**SECTION 3: COMPOSITION/INFORMATION ON INGREDIENTS**

**Mixture**

<table>
<thead>
<tr>
<th>Name</th>
<th>Product Identifier</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose pulp</td>
<td>(CAS No) 65996-61-4</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 5, 5 - 10, 10 - 30, 30 - 60, 60 - 93</td>
</tr>
<tr>
<td>Water</td>
<td>(CAS No) 7732-18-5</td>
<td>5 - 9</td>
</tr>
<tr>
<td>Starch</td>
<td>(CAS No) 9005-25-8</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 5, 5 - 9</td>
</tr>
<tr>
<td>Polyvinyl alcohol</td>
<td>(CAS No) 9002-89-5</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 3</td>
</tr>
<tr>
<td>Starch, 2-hydroxy-3-(trimethylammonio)propyl ether, chloride</td>
<td>(CAS No) 56780-58-6</td>
<td>&lt; 0.1, 0.1 - 1, 1 - 1.5</td>
</tr>
</tbody>
</table>

More than one of the ranges of concentration prescribed by Controlled Products Regulations has been used where necessary, due to varying composition.
SECTION 4: FIRST AID MEASURES

Description of First Aid Measures

General: Never give anything by mouth to an unconscious person. If you feel unwell, seek medical advice.

Inhalation: Remove to fresh air and keep at rest in a position comfortable for breathing. Obtain medical attention if breathing difficulty persists.

Skin Contact: Wash with plenty of soap and water. Obtain medical attention if irritation develops or persists.

Eye Contact: Rinse cautiously with water for at least 5 minutes. Remove contact lenses, if present and easy to do. Continue rinsing. Obtain medical attention if pain, blinks, or redness persist.

Ingestion: Rinse mouth. Do not induce vomiting. Seek medical attention if a large amount is swallowed.

Most Important Symptoms and Effects Both Acute and Delayed

General: Not expected to present a significant hazard under anticipated conditions of normal use.

Inhalation: Dust from this product may cause irritation to the respiratory tract.

Skin Contact: Prolonged contact with large amounts of dust may cause mechanical irritation.

Eye Contact: Eye contact with large amounts of dust may cause mechanical irritation.

Ingestion: If a large quantity has been ingested: Gastrointestinal irritation.

Chronic Symptoms: None expected under normal conditions of use.

Indication of Any Immediate Medical Attention and Special Treatment Needed

If you feel unwell, seek medical advice.

SECTION 5: FIRE-FIGHTING MEASURES

Extinguishing Media

Suitable Extinguishing Media: Dry chemical, carbon dioxide, alcohol-resistant foam, water spray.

Unsuitable Extinguishing Media: Do not use a heavy water stream. Use of heavy stream of water may spread fire.

Special Hazards Arising From the Substance or Mixture

Fire Hazard: May form combustible dust when processed.

Explosion Hazard: When processed may form a dust explosion hazard in air. Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Reactivity: Hazardous reactions will not occur under normal conditions.

Advice for Firefighters

Precautionary Measures Fire: Exercise caution when fighting any chemical fire.

Firefighting Instructions: Use water spray or fog for cooling exposed containers.

Protection During Firefighting: Do not enter fire area without proper protective equipment, including respiratory protection.


Reference to Other Sections

Refer to section 9 for flammability properties.

SECTION 6: ACCIDENTAL RELEASE MEASURES

Personal Precautions, Protective Equipment and Emergency Procedures

General Measures: Avoid unnecessary contact of dust with skin, eyes, or clothing. Avoid breathing (dust). Avoid creating dusty conditions whenever feasible.

For Non-Emergency Personnel

Protective Equipment: Use appropriate personal protection equipment (PPE).


For Emergency Personnel

Protective Equipment: Equip cleanup crew with proper protection.

Emergency Procedures: Upon arrival at the scene, a first responder is expected to recognize the presence of dangerous goods, protect oneself and the public, secure the area, and call for the assistance of trained personnel as soon as conditions permit.

Environmental Precautions

Prevent entry to sewers and public waters.

Methods and Material for Containment and Cleaning Up

For Containment: Contain and collect as any solid.
Solid Fiber Sheets

Methods for Cleaning Up: For dust: use explosion proof vacuum during cleanup, with appropriate filter. Do not mix with other materials. Vacuum clean-up is preferred. If sweeping is required use a dust suppressant. Avoid generation of dust during clean-up of spills. Contact competent authorities after a spill.

Reference to Other Sections
See Heading 8. Exposure controls and personal protection. Concerning disposal elimination after cleaning, see item 13.

SECTION 7: HANDLING AND STORAGE

Precautions for Safe Handling

Additional Hazards When Processed: Accumulation and dispersion of dust with an ignition source can cause a combustible dust explosion. Keep dust levels to a minimum and follow applicable regulations.

Hygiene Measures: Handle in accordance with good industrial hygiene and safety procedures. Wash hands and other exposed areas with mild soap and water before eating, drinking or smoking and when leaving work.

Conditions for Safe Storage, Including Any Incompatibilities

Technical Measures: Comply with applicable regulations. Avoid creating or spreading dust. Use explosion-proof electrical, lighting, ventilating equipment. Proper grounding procedures to avoid static electricity should be followed.

Storage Conditions: Store in a dry, cool and well-ventilated place. Keep container closed when not in use. Keep/Store away from direct sunlight, incompatible materials, heat, hot surfaces, sparks, open flames, and other ignition sources.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

Specific End Use(s)

Packaging.

SECTION 8: EXPOSURE CONTROLS/PERSONAL PROTECTION

Control Parameters

For substances listed in section 3 that are not listed here, there are no established Exposure limits from the manufacturer, supplier, importer, or the appropriate advisory agency including: ACGIH (TLV), AIHA (WEEL), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government.

<table>
<thead>
<tr>
<th>Starch (9005-25-8)</th>
<th>USA ACGIH</th>
<th>USA ACGIH ACGIH TWA (mg/m³)</th>
<th>10 mg/m³</th>
</tr>
</thead>
<tbody>
<tr>
<td>USA ACGIH</td>
<td>ACGIH chemical category</td>
<td>Not Classifiable as a Human Carcinogen</td>
<td></td>
</tr>
<tr>
<td>USA OSHA</td>
<td>OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³ (total dust)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ (respirable fraction)</td>
<td></td>
</tr>
<tr>
<td>USA NIOSH</td>
<td>NIOSH REL (TWA) (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
<td></td>
</tr>
<tr>
<td></td>
<td></td>
<td>5 mg/m³ (respirable dust)</td>
<td></td>
</tr>
<tr>
<td>Alberta</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>British Columbia</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
<td></td>
</tr>
<tr>
<td>Manitoba</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>New Brunswick</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Nova Scotia</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Nunavut</td>
<td>OEL TWA (mg/m³)</td>
<td>5 mg/m³ (respirable mass)</td>
<td></td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Northwest Territories</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Ontario</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Québec</td>
<td>VEMP (mg/m³)</td>
<td>10 mg/m³ (containing no Asbestos and &lt;1% Crystalline silica-total dust)</td>
<td></td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Saskatchewan</td>
<td>OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Yukon</td>
<td>OEL STEL (mg/m³)</td>
<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Yukon</td>
<td>OEL TWA (mg/m³)</td>
<td>30 mppcf</td>
<td></td>
</tr>
</tbody>
</table>
Solid Fiber Sheets
Safety Data Sheet

Exposure Controls
Appropriate Engineering Controls: Emergency eye wash fountains and safety showers should be available in the immediate vicinity of any potential exposure. Avoid creating or spreading dust. Proper grounding procedures to avoid static electricity should be followed. Use explosion-proof equipment. Use local exhaust or general dilution ventilation or other suppression methods to maintain dust levels below exposure limits. Power equipment should be equipped with proper dust collection devices. Ensure all national/local regulations are observed.


Materials for Protective Clothing: Not required for normal conditions of use.

Hand Protection: Not required for normal conditions of use.

Eye Protection: In case of excessive dust production, safety goggles are recommended.

Skin and Body Protection: Not required for normal conditions of use.

Respiratory Protection: Use NIOSH-approved dust mask if dust has the potential to become airborne.

Environmental Exposure Controls: Do not allow the product to be released into the environment.

Consumer Exposure Controls: Do not eat, drink or smoke during use

SECTION 9: PHYSICAL AND CHEMICAL PROPERTIES

Information on Basic Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Physical State</th>
<th>Solid</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor</td>
<td>Not available</td>
</tr>
<tr>
<td>Odor Threshold</td>
<td>Not available</td>
</tr>
<tr>
<td>pH</td>
<td>Not available</td>
</tr>
<tr>
<td>Evaporation Rate</td>
<td>Not available</td>
</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Boiling Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Flash Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Auto-ignition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
<td>Not available</td>
</tr>
<tr>
<td>Flammability (solid, gas)</td>
<td>Not available</td>
</tr>
<tr>
<td>Lower Flammable Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Upper Flammable Limit</td>
<td>Not available</td>
</tr>
<tr>
<td>Vapor Pressure</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
<td>Not available</td>
</tr>
<tr>
<td>Relative Density</td>
<td>Not available</td>
</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
</tr>
<tr>
<td>Solubility</td>
<td>Not available</td>
</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>Not available</td>
</tr>
<tr>
<td>Viscosity</td>
<td>Not available</td>
</tr>
<tr>
<td>Explosive Properties</td>
<td>Dust explosion hazard in air when processed.</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Mechanical Impact</td>
<td>Not expected to present an explosion hazard due to mechanical impact.</td>
</tr>
<tr>
<td>Explosion Data – Sensitivity to Static Discharge</td>
<td>Static discharge could act as an ignition source if dust is dispersed in air.</td>
</tr>
</tbody>
</table>

SECTION 10: STABILITY AND REACTIVITY

Reactivity: Hazardous reactions will not occur under normal conditions.

Chemical Stability: Stable under recommended handling and storage conditions (see section 7).

Possibility of Hazardous Reactions: Hazardous polymerization will not occur.

Conditions to Avoid: Direct sunlight. Heat, hot surfaces, sparks, open flames, and other ignition sources. Incompatible materials.

Incompatible Materials: Strong acids, strong bases, strong oxidizers.

SECTION 11: TOXICOLOGICAL INFORMATION

Information on Toxicological Effects - Product

Acute Toxicity: Not classified
LD50 and LC50 Data: Not available
Skin Corrosion/Irritation: Not classified
Serious Eye Damage/Irritation: Not classified
Respiratory or Skin Sensitization: Not classified
Germ Cell Mutagenicity: Not classified
Teratogenicity: Not classified
Carcinogenicity: Not classified
Specific Target Organ Toxicity (Repeated Exposure): Not classified
Reproductive Toxicity: Not classified
Specific Target Organ Toxicity (Single Exposure): Not classified
Aspiration Hazard: Not classified

Symptoms/Injuries After Inhalation: Dust from this product may cause irritation to the respiratory tract.
Symptoms/Injuries After Skin Contact: Prolonged contact with large amounts of dust may cause mechanical irritation. May cause an allergic reaction in sensitive individuals.
Symptoms/Injuries After Eye Contact: Eye contact with large amounts of dust may cause mechanical irritation.
Symptoms/Injuries After Ingestion: If a large quantity has been ingested: Gastrointestinal irritation.
Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data:

<table>
<thead>
<tr>
<th>Polyvinyl alcohol (9002-89-5)</th>
</tr>
</thead>
<tbody>
<tr>
<td>LD50 Oral Rat</td>
</tr>
<tr>
<td>IARC Group</td>
</tr>
</tbody>
</table>

SECTION 12: ECOLOGICAL INFORMATION

Toxicity No additional information available
Persistence and Degradability Not available
Bioaccumulative Potential Not available
Mobility in Soil Not available
Other Adverse Effects
Other Information: Avoid release to the environment.

SECTION 13: DISPOSAL CONSIDERATIONS

Waste Disposal Recommendations: Dispose of waste material in accordance with all local, regional, national, and international regulations

SECTION 14: TRANSPORT INFORMATION

In Accordance with DOT Not regulated for transport
In Accordance with IMDG Not regulated for transport
In Accordance with IATA Not regulated for transport
In Accordance with TDG Not regulated for transport

SECTION 15: REGULATORY INFORMATION

US Federal Regulations
All ingredients of this product are either listed on the TSCA inventory or are exempt from TSCA Inventory requirements under 40 CFR 720.30.
Solid Fiber Sheets

Safety Data Sheet

**US State Regulations**

**Starch (9005-25-8)**

U.S. - Massachusetts - Right To Know List
U.S. - Pennsylvania - RTK (Right to Know) List

**Canadian Regulations**

<table>
<thead>
<tr>
<th>WHMIS Classification</th>
<th>Uncontrolled product according to WHMIS classification criteria</th>
</tr>
</thead>
</table>

This product has been classified in accordance with the hazard criteria of the Controlled Products Regulations (CPR) and the SDS contains all of the information required by CPR.

**SECTION 16: OTHER INFORMATION, INCLUDING DATE OF PREPARATION OR LAST REVISION**

**Revision Date**: 02/04/2016

**Other Information**: This document has been prepared in accordance with the SDS requirements of the OSHA Hazard Communication Standard 29 CFR 1910.1200.

**GHS Full Text Phrases**: May form combustible dust concentrations in air

<table>
<thead>
<tr>
<th><strong>Combustible Dust</strong></th>
<th>May form combustible dust concentrations in air</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th><strong>NFPA Health Hazard</strong></th>
<th>1 - Exposure could cause irritation but only minor residual injury even if no treatment is given.</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>NFPA Fire Hazard</strong></td>
<td>2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.</td>
</tr>
<tr>
<td><strong>NFPA Reactivity</strong></td>
<td>0 - Normally stable, even under fire exposure conditions, and are not reactive with water.</td>
</tr>
</tbody>
</table>

**HMIS III Rating**

**Health**

1 Slight Hazard - Irritation or minor reversible injury possible

**Flammability**

2 Moderate Hazard

**Physical**

0 Minimal Hazard

**Party Responsible for the Preparation of This Document**

International Paper
6400 Poplar Avenue
Memphis, TN 38197
Tel.: 901-419-4848

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