SECTION 1: IDENTIFICATION

Product Identifier
Product Form: Mixture
Product Name: Liner
Synonyms: Kraft Liner, White Top Liner, Saturating Kraft Liner, Gypsum Wallboard facing paper

Intended Use of the Product
Packaging and construction materials.

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

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 further processing may aggravate 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>% (w/w)</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>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.
**Liner**

**Safety Data Sheet**

**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, blinking, 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: may cause 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 create 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 paper fire.

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

**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).

**Emergency Procedures**: Evacuate unnecessary personnel.

**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.

**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.

**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/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 and construction materials.

**SECTION 8: EXPOSURE CONTROLS/PERSOANL 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), NIOSH (REL), OSHA (PEL), Canadian provincial governments, or the Mexican government

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

<table>
<thead>
<tr>
<th>Cellulose (9004-34-6)</th>
<th>USA ACGIH ACGIH TWA (mg/m³)</th>
<th>10 mg/m³</th>
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<tbody>
<tr>
<td>USA OSHA OSHA PEL (TWA) (mg/m³)</td>
<td>15 mg/m³ (total dust) 5 mg/m³ (respirable fraction)</td>
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<td></td>
</tr>
<tr>
<td>Alberta OEL TWA (mg/m³)</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>British Columbia OEL TWA (mg/m³)</td>
<td>10 mg/m³ (total dust)</td>
<td></td>
</tr>
</tbody>
</table>
Liner
Safety Data Sheet

<table>
<thead>
<tr>
<th>Province/Region</th>
<th>TWA (mg/m³)</th>
<th>STEL (mg/m³)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Manitoba</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>New Brunswick</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Newfoundland &amp; Labrador</td>
<td>10 mg/m³</td>
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<tr>
<td>Nova Scotia</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Nunavut</td>
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<td></td>
</tr>
<tr>
<td>Northwest Territories</td>
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<td></td>
</tr>
<tr>
<td>Ontario</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Prince Edward Island</td>
<td>10 mg/m³</td>
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<tr>
<td>Saskatchewan</td>
<td>10 mg/m³</td>
<td></td>
</tr>
<tr>
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<td>20 mg/m³</td>
<td></td>
</tr>
<tr>
<td>Yukon</td>
<td>30 mppcf</td>
<td></td>
</tr>
</tbody>
</table>

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.

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>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Physical State</td>
<td>Solid</td>
</tr>
<tr>
<td>Appearance</td>
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<tr>
<td>Odor</td>
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</tr>
<tr>
<td>Odor Threshold</td>
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</tr>
<tr>
<td>pH</td>
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</tr>
<tr>
<td>Evaporation Rate</td>
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</tr>
<tr>
<td>Melting Point</td>
<td>Not available</td>
</tr>
<tr>
<td>Freezing Point</td>
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</tr>
<tr>
<td>Boiling Point</td>
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</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>
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<tr>
<td>Vapor Pressure</td>
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</tr>
<tr>
<td>Relative Vapor Density at 20 °C</td>
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</tr>
<tr>
<td>Relative Density</td>
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</tr>
<tr>
<td>Specific Gravity</td>
<td>Not available</td>
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<tr>
<td>Solubility</td>
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</tr>
<tr>
<td>Partition Coefficient: N-Octanol/Water</td>
<td>Not available</td>
</tr>
</tbody>
</table>
**Liner**

Safety Data Sheet

Viscosity: Not available

Explosive Properties: Dust explosion hazard in air when processed.

Explosion Data – Sensitivity to Mechanical Impact: Not expected to present an explosion hazard due to mechanical impact.

Explosion Data – Sensitivity to Static Discharge: Static discharge could act as an ignition source if dust is dispersed in air.

**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 may cause astrostestinal irritation.

Chronic Symptoms: None expected under normal conditions of use.

Information on Toxicological Effects - Ingredient(s)

LD50 and LC50 Data: Not available

**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
**Liner Safety Data Sheet**

**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.

#### 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>Liner</th>
<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**: 05/26/2015
- **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:**

| Combustible Dust | May form combustible dust concentrations in air |

**NFPA Health Hazard**: 1 - Dust exposure could cause irritation but only minor residual injury even if no treatment is given.

**NFPA Fire Hazard**: 2 - Must be moderately heated or exposed to relatively high temperature before ignition can occur.

**NFPA Reactivity**: 0 - Normally stable, even under fire exposure conditions, and are not reactive with water.

**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

*The information set forth herein is offered as a service to International Paper customers and is not intended to relieve a customer from its responsibility to determine the suitability of this information for their particular purposes, to comply with all laws and procedures regarding the safe use of these materials, and to use these materials in a safe manner.*
LINER

If small particles are generated during further processing, handling or by other means, may form combustible dust concentrations in air.