Section 1: Identification

Product identifier

Product Name: Cellulose Pulp / Cellulose Fiber (Virgin / Recycled)
Synonyms: Quinnesec® Hardwood Pulp; Quinnesec® HB Pulp; Quinnesec® Hi-Maple Pulp; Quinnesec® Low Ash Pulp

Relevant identified uses of the substance or mixture and uses advised against

Recommended use: Used to produce printing and writing papers, specialty papers and other products

Details of the supplier of the safety data sheet

Manufacturer: Billerud Americas Corporation
8540 Gander Creek Drive
Miamisburg, OH 45342
United States
www.billerud.com
CustomerRequests@billerud.com
877-855-7243

Emergency telephone number

Manufacturer: 1-800-424-9300 - (24 Hour) Chemtrec Customer No.: CCN212201

Section 2: Hazard Identification

United States (US)
According to: OSHA 29 CFR 1910.1200 HCS

Classification of the substance or mixture

OSHA HCS 2012: Combustible Dust

Label elements

OSHA HCS 2012

WARNING

Hazard statements: May form combustible dust concentrations in air.

Other hazards

Canada
According to: WHMIS 2015

Classification of the substance or mixture

WHMIS 2015  Combustible Dusts 1

Label elements

WHMIS 2015

WARNING

Hazard statements  May form combustible dust concentrations in air.

Precautionary statements

Other hazards

WHMIS 2015  In Canada, the product mentioned above is considered hazardous under the Workplace Hazardous Materials Information System (WHMIS).

Section 3 - Composition/Information on Ingredients

Substances

• Material does not meet the criteria of a substance.

Mixtures

<table>
<thead>
<tr>
<th>Chemical Name</th>
<th>Identifiers</th>
<th>%</th>
<th>Classifications According to Regulation/Directive</th>
<th>Comments</th>
</tr>
</thead>
</table>
| Cellulose     | CAS:65996-61-4 | 45% TO 95% | OSHA HCS 2012: Comb. Dust  
WHMIS 2015: Comb. Dust | NDA      |

Section 4: First-Aid Measures

Description of first aid measures

Inhalation  IF INHALED: If breathing is difficult, remove victim to fresh air and keep at rest in a position comfortable for breathing. Give artificial respiration if victim is not breathing. If signs/symptoms continue, get medical attention.

Skin  In case of contact with substance, immediately flush skin with running water for at least 20 minutes. If irritation develops and persists, get medical attention.

Eye  In case of contact with substance, immediately flush eyes with running water for at least 20 minutes. If eye irritation persists: Get medical advice/attention.

Ingestion  Rinse mouth. If victim is fully conscious, give a cupful of water. Get medical attention if symptoms occur.

Most important symptoms and effects, both acute and delayed

Refer to Section 11 - Toxicological Information.

Indication of any immediate medical attention and special treatment needed

Notes to  All treatments should be based on observed signs and symptoms of distress in the patient.

Physician  Consideration should be given to the possibility that overexposure to materials other than this product may have occurred.
Section 5: Fire-Fighting Measures

Extinguishing media

Suitable Extinguishing Media
- LARGE FIRE: Water spray, fog or regular foam.
- SMALL FIRES: Dry chemical, CO2, water spray or regular foam.

Unsuitable Extinguishing Media
No data available

Special hazards arising from the substance or mixture

Unusual Fire and Explosion Hazards
Avoid generating dust; fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard.

Hazardous Combustion Products
Decomposition products may include the following materials: carbon dioxide; carbon monoxide.

Advice for firefighters
Wear positive pressure self-contained breathing apparatus (SCBA). Structural firefighters’ protective clothing will only provide limited protection.

Section 6 - Accidental Release Measures

Personal precautions, protective equipment and emergency procedures

Personal Precautions
Ventilate enclosed areas. Do not walk through spilled material. Use appropriate Personal Protective Equipment (PPE)

Emergency Procedures
ELIMINATE all ignition sources (no smoking, flares, sparks or flames in immediate area). Keep unauthorized personnel away.

Environmental precautions
Avoid run off to waterways and sewers.

Methods and material for containment and cleaning up
Containment/Clean-up Measures
- Avoid generating dust.
- Use clean nonsparking tools to collect material.
- Dust deposits should not be allowed to accumulate on surfaces, as these may form an explosive mixture if they are released into the atmosphere in sufficient concentration.
- Avoid dispersal of dust in the air (i.e., clearing dust surfaces with compressed air).

Section 7 - Handling and Storage

Precautions for safe handling
Handling
Some pulps/fibers are shipped as wet lap (~50% water). For all others, the combustible dust statement applies. Use only with adequate ventilation. Keep away from heat, sparks, and flame. Minimize dust generation and accumulation. Routine housekeeping should be instituted to ensure that dusts do not accumulate on surfaces. Dry powders can build static electricity charges when subjected to the friction of transfer and mixing operations. Provide adequate precautions, such as electrical grounding and bonding, or inert atmospheres. Wear appropriate personal protective equipment. Wash thoroughly after handling.

Conditions for safe storage, including any incompatibilities
Storage
Keep container closed. Store in a cool, dry, well-ventilated place.

Section 8 - Exposure Controls/Personal Protection

Control parameters
Exposure Limits/Guidelines
No applicable exposure limits available for product or components.
Exposure controls
Engineering Measures/Controls
Ensure that dust handling systems (such as exhaust ducts, dust collectors, vessels and processing equipment) are designed in a manner to prevent the escape of dust into the work area (i.e., there is not leakage from the equipment). It is recommended that dust control equipment such as local exhaust ventilation and material transport systems involved in handling of this product contain explosion relief vents or an explosion suppression system or an oxygen-deficient environment. Use explosion-proof electrical/ventilating/lighting/equipment.

Personal Protective Equipment
Respiratory
For limited exposure use an N95 dust mask. For prolonged exposure use an air-purifying respirator with high efficiency particulate air (HEPA) filters. Follow the OSHA respirator regulations found in 29 CFR 1910.134 or European Standard EN 149. Use a NIOSH/MSHA or European Standard EN 149 approved respirator if exposure limits are exceeded or symptoms are experienced.

Eye/Face
Wear safety goggles.

Skin/Body
Wear appropriate gloves. Wear long sleeves and/or protective coveralls.

Environmental Exposure Controls
Follow best practice for site management and disposal of waste.

Section 9 - Physical and Chemical Properties

Information on Physical and Chemical Properties

<table>
<thead>
<tr>
<th>Material Description</th>
<th>Physical Form</th>
<th>Color</th>
<th>Odor Threshold</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Solid</td>
<td>White/Natural</td>
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<tr>
<td>Appearance/Description</td>
<td>Clean White</td>
<td>Odorless</td>
<td></td>
</tr>
<tr>
<td>Odor Threshold</td>
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<td></td>
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</table>

<table>
<thead>
<tr>
<th>General Properties</th>
</tr>
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<tbody>
<tr>
<td>Boiling Point</td>
</tr>
<tr>
<td>Melting Point/Freezing Point</td>
</tr>
<tr>
<td>Decomposition Temperature</td>
</tr>
<tr>
<td>pH</td>
</tr>
<tr>
<td>Specific Gravity/Relative Density</td>
</tr>
<tr>
<td>Water Solubility</td>
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<tr>
<td>Viscosity</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Volatility</th>
</tr>
</thead>
<tbody>
<tr>
<td>Vapor Pressure</td>
</tr>
<tr>
<td>Vapor Density</td>
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<tr>
<td>Evaporation Rate</td>
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<table>
<thead>
<tr>
<th>Flammability</th>
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</thead>
<tbody>
<tr>
<td>Flash Point</td>
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<tr>
<td>UEL</td>
</tr>
<tr>
<td>LEL</td>
</tr>
<tr>
<td>Autoignition</td>
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<tr>
<td>Flammability (solid, gas)</td>
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</table>

<table>
<thead>
<tr>
<th>Environmental</th>
</tr>
</thead>
<tbody>
<tr>
<td>Octanol/Water Partition coefficient</td>
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</tbody>
</table>

Section 10: Stability and Reactivity

Reactivity
• No dangerous reaction known under conditions of normal use.

Chemical stability
• Stable under normal temperatures and pressures.

Possibility of hazardous reactions
• Hazardous polymerization not indicated.
Conditions to avoid
• Avoid generating dust. Keep away from heat, sparks and flame.

Incompatible materials
• Drying oils and oxidizing agents.

Hazardous decomposition products
• Combustion products include carbon monoxide and carbon dioxide.

Section 11 - Toxicological Information

Information on toxicological effects

<table>
<thead>
<tr>
<th>GHS Properties</th>
<th>Classification</th>
</tr>
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<tbody>
<tr>
<td>Acute toxicity</td>
<td>OSHA HCS 2012•No data available</td>
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<tr>
<td></td>
<td>WHMIS 2015•No data available</td>
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<tr>
<td>Skin corrosion/Irritation</td>
<td>OSHA HCS 2012•No data available</td>
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<tr>
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<td>WHMIS 2015•No data available</td>
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<td>Serious eye damage/Irritation</td>
<td>OSHA HCS 2012•No data available</td>
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<td></td>
<td>WHMIS 2015•No data available</td>
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<tr>
<td>Skin sensitization</td>
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<td>Respiratory sensitization</td>
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<td>Aspiration Hazard</td>
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<td>Carcinogenicity</td>
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<td>Germ Cell Mutagenicity</td>
<td>OSHA HCS 2012•No data available</td>
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<td>Toxicity for Reproduction</td>
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<td></td>
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<td>STOT-SE</td>
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<td>STOT-RE</td>
<td>OSHA HCS 2012•No data available</td>
</tr>
<tr>
<td></td>
<td>WHMIS 2015•No data available</td>
</tr>
</tbody>
</table>

Potential Health Effects

Inhalation

Acute (Immediate)
Exposure to dust may cause irritation. Processes such as cutting, grinding, crushing, or impact may result in generation of excessive amounts of airborne dusts in the workplace. Nuisance dust may affect the lungs but reactions are typically reversible.

Chronic (Delayed)
No data available

Skin

Acute (Immediate)
Exposure to dust may cause mechanical irritation.

Chronic (Delayed)
No data available

Eye

Acute (Immediate)
Exposure to dust may cause mechanical irritation. Excessive concentrations of nuisance dust in the workplace may reduce visibility and may cause unpleasant deposits in eyes.
Excessive concentrations of nuisance dust in the workplace may cause mechanical irritation to mucous membranes.

Section 12 - Ecological Information

Toxicity
• Non-mandatory section - information about this substance not compiled.

Persistence and degradability
• Non-mandatory section - information about this substance not compiled.

Bioaccumulative potential
• Non-mandatory section - information about this substance not compiled.

Mobility in Soil
• Non-mandatory section - information about this substance not compiled.

Other adverse effects
• Non-mandatory section - information about this substance not compiled.

Section 13 - Disposal Considerations

Waste treatment methods
Product waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Packaging waste: Dispose of content and/or container in accordance with local, regional, national, and/or international regulations.

Section 14 - Transport Information

<table>
<thead>
<tr>
<th></th>
<th>UN number</th>
<th>UN proper shipping name</th>
<th>Transport hazard class(es)</th>
<th>Packing group</th>
<th>Environmental hazards</th>
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<tbody>
<tr>
<td>DOT</td>
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<td>Not Regulated</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>NDA</td>
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<td>TDG</td>
<td>Not Applicable</td>
<td>Not Regulated</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>NDA</td>
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<tr>
<td>IMO/IMDG</td>
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<td>Not Regulated</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>NDA</td>
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<td>IATA/ICAO</td>
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<td>Not Regulated</td>
<td>Not Applicable</td>
<td>Not Applicable</td>
<td>NDA</td>
</tr>
</tbody>
</table>

Special precautions for user
None specified.

Transport in bulk according to Annex II of MARPOL 73/78 and the IBC Code
No data available
Section 15 - Regulatory Information

Safety, health and environmental regulations/legislation specific for the substance or mixture

SARA Hazard Classifications

<table>
<thead>
<tr>
<th>Component</th>
<th>CAS</th>
<th>Canada DSL</th>
<th>Canada NDSL</th>
<th>EU EINECS</th>
<th>EU ELNICS</th>
<th>TSCA</th>
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<tbody>
<tr>
<td>Cellulose</td>
<td>65996-61-4</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
<td>No</td>
<td>Yes</td>
</tr>
</tbody>
</table>

Canada

Labor
- Canada - WHMIS 1988 - Classifications of Substances
  - Cellulose
- Canada - WHMIS 1988 - Ingredient Disclosure List
  - Cellulose

Environment
- Canada - CEPA - Priority Substances List
  - Cellulose

United States

Labor
- U.S. - OSHA - Process Safety Management - Highly Hazardous Chemicals
  - Cellulose
- U.S. - OSHA - Specifically Regulated Chemicals
  - Cellulose

Environment
- U.S. - CAA (Clean Air Act) - 1990 Hazardous Air Pollutants
  - Cellulose
- U.S. - CERCLA/SARA - Hazardous Substances and their Reportable Quantities
  - Cellulose
- U.S. - CERCLA/SARA - Radionuclides and Their Reportable Quantities
  - Cellulose
- U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances EPCRA RQs
  - Cellulose
- U.S. - CERCLA/SARA - Section 302 Extremely Hazardous Substances TPQs
  - Cellulose
- U.S. - CERCLA/SARA - Section 313 - Emission Reporting
  - Cellulose
- U.S. - CERCLA/SARA - Section 313 - PBT Chemical Listing
  - Cellulose

United States - California

Environment
- U.S. - California - Proposition 65 - Carcinogens List
  - Cellulose
- U.S. - California - Proposition 65 - Developmental Toxicity
  - Cellulose
- U.S. - California - Proposition 65 - Maximum Allowable Dose Levels (MADL)
  - Cellulose
- U.S. - California - Proposition 65 - No Significant Risk Levels (NSRL)
  - Cellulose
- U.S. - California - Proposition 65 - Reproductive Toxicity - Female
  - Cellulose
- U.S. - California - Proposition 65 - Reproductive Toxicity - Male
  - Cellulose

Pressure (Sudden Release of)
**Section 16 - Other Information**

<table>
<thead>
<tr>
<th>Revision Date</th>
<th>28/April/2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Last Revision Date</td>
<td>05/September/2019</td>
</tr>
<tr>
<td>Preparation Date</td>
<td>06/December/2018</td>
</tr>
<tr>
<td>Disclaimer/Statement of Liability</td>
<td>To the best of our knowledge, the information contained herein is accurate. However, neither the above-named supplier, nor any of its subsidiaries, assumes any liability whatsoever for the accuracy or completeness of the information contained herein. Final determination of 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 that exist.</td>
</tr>
</tbody>
</table>

**Key to abbreviations**

NDA = No Data Available
<table>
<thead>
<tr>
<th><strong>Cellulose Pulp / Cellulose Fiber (Virgin / Recycled)</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Contains: Cellulose 45% TO 95%</td>
</tr>
</tbody>
</table>

According to OSHA 29 CFR 1910.1200 HCS

**WARNING**

May form combustible dust concentrations in air.


Refer to SDS for more information.

Billerud Americas Corporation, 8540 Gander Creek Drive, Miamisburg, OH 45342 United States, Emergency: 1-800-424-9300 - (24 Hour)
Chemtrec Customer No.: CCN212201; General Information: 877-855-7243.