Petition for Amending the National List of the USDA’s National Organic Program for inclusion of:

Cellulose Fibers

A Synthesized "Agricultural Product Not Commercially Available" used "in and on" organic food.

Submitted June 29, 2001 by Jim Pierce, Certification Coordinator, Organic Valley / CROPP Cooperative, 507 Main St, La Farge WI 54639 phone (608)625-2602 fax (608)625-4177, email jim.pierce@organicvalley.com, website www.organicvalley.com.

NOTE: This petition is a revision of an original petition submitted March 14th 2001 for "Peelable Regenerated Cellulose Sausage Casings". That petition was rejected June 6th 2001 on the grounds that the request was for a "formulated product".
Petitioners are required to provide the following information as applicable:

Category for inclusion on the National List:
§ 205.606 Nonorganically produced agricultural products allowed as ingredients in or on processed products labeled as "organic" or "Made with organic"

Common name:
- Cellulose, Cellulose Fibers, Microcrystalline Cellulose

Chemical Structure:
- See attached MSDS information.

Manufacturers name, address and telephone number
- Viskase Corporation, 6835 West 65th Street, Chicago IL 60638. Tel. (708)496-4623, Fax (708)496-4888
- International Fiber Corporation, 50 Bridge Street, North Tonawanda, NY 14120
- Tembec Inc. 33 Kipawa Rd., PO Box 3000, Temiscaming, Quebec Canada, JOZ 3RO

List of uses, rates and applications for crops and livestock uses, mode of action for handling uses: The following is a list of uses in the organic industry which have been discovered in researching this petition. There are probably other organic applications which the TAP review will discover that should be considered for inclusion as well.
- Used in formulation as a processing aid in the production of Skinless Wieners (Hotdogs). Emulsified sausage blend is stuffed into cellulose casings, smoked or otherwise cooked and peeled from the casing prior to packaging.
- Used as an anticaking agent at the rate of up to 2% in shredded products such as cheese.
- Used as a filtering agent in fruit processing.

Sources and detailed description of manufacturing procedures:
- See attached process sheet/Flowchart.

Summary of any previous reviews by state or private certification agencies:
- As far as we know Organic Valley is the only manufacturer of certified organic Hotdogs. There may be organic vegetarian products on the market which I am unaware of. In February 1999 Peeable Cellulose Casings was petitioned to Oregon Tilth Certified Organic, our lead agency, prior to the introduction of the first "Certified Organic" Meat product in March 1999 following the revision of the organic laws to allow labeling of meat products.
- Cellulose fibers have been approved for use in shredded cheese by OTCO and QAI since 1994.

Regulatory status with EPA, FDA or state authorities:
- The two attached MSDS Sheets do not list any regulations. Likewise, while an internet search for Cellulose as Paper Fiber (The raw material from which casings are made) mentions a potential OSHA Air Pollution Hazard nothing specific to Cellulose Casings could be found.
Chemical Abstract Service (CAS) number or other product number, samples of labels:
- CAS number – (9004-34-6)

Physical properties of the substance and chemical mode of action: including environmental impacts, interactions with other materials, toxicity and persistence, effects on human health, effects of soil organisms, crops or livestock:
- See attached MSDSs.

Safety information, including a MSDS (Material Safety Data Sheet) and report from National Institute of Environmental Health Studies (NIEHS):
- MSDS Sheets are attached
- NIEHS A NIEHS website search using "Cellulose" revealed 26 links. ten were devoted to Cellulose Insulation in construction where dust and fire retardant chemicals are a concern but no reference was found to the cellulose itself. Several sites mentioned Methyl Cellulose in toxicology studies of laboratory animals but no direct safety concerns could be found to food grade cellulose.

Petition justification statement - that states why the synthetic substance is necessary, alternatives that could be used, beneficial effects to the environment, etc:

Cellulose, whether as a minor ingredient or a processing aid has been used for years by certified organic food companies. It has been a part of Organic Valley's food processing and formulation for over six years. Cellulose is used as an anticaking agent in certified organic shredded cheese and as a processing aid in our certified organic hotdogs. The cellulose fibers used in our cellulose have been thoroughly reviewed and chosen as the preferred ingredient for function, while preserving organic integrity.

Though some cheeses can be shredded and packaged without the use of any anticaking agents, most shredded cheese packaged either for retail or manufacture will clump and become snappealing and dysfunctional. Cellulose is not added as an anticaking agent at uniform rates but on an "as needed" basis, at the lowest usage rates possible.

Organic Valley's certified organic Beef hotdogs (branded Valley's Family due to USDA label law language) were the very first USDA labeled organic meat product in history. They, along with the recently introduced chicken hotdog, are foundation products to the Valley's Family line.

Peelable Cellulose Sausage casings are the industry standard for producing skinless sausages such as hotdogs. We know of no substitute casing available and "natural casing" wiener do not fill the same market niche.

Consumer feedback has been overwhelmingly positive. We routinely receive calls and letters thanking us for offering an organic alternative for concerned parents to feed their children. Efforts are underway to introduce this...
product in Schools and other foodservice applications.

As the attached documents will verify, cellulose casings are composed of naturally occurring cellulose from trees, which is extensively processed into a material similar to cellophane. These casings pose less of a problem than much of the Plastic in which organic food is packaged. This conclusion was reached in 1999 by Oregon Tilth as the result of a similar petition review.

Some certified organic companies also use cellulose fibers as filtering agents, a subject with which this petitioner does not have any direct experience. It is my understanding that supporting documentation and editorials, from these other companies, will be submitted in support of this petition. These letters of support will clarify and expand upon the various ways cellulose is used in the organic industry. Much of the information presented in this petition and support letters will undoubtedly pertain to multiple applications. Each interested party, working independently, will unveil helpful information that the other missed.

Commercial Confidential Information Statement - describing information that is considered to be confidential business or commercial information:

➤ None of the information submitted in this report is considered confidential at this time.
ATTACHMENT LIST

- PETITION APPLICATION
- MSDS
- SPEC SHEETS AND SUPPORTING DECLARATIONS OF PURITY
- PROCESS DESCRIPTION AND FLOW CHART
- TECHNICAL DATA SHEET
- KOSHER CERTIFICATE
- EMAIL FROM ASSOCIATE DISCUSSING APPLICABILITY OF NOP RULE TO CELLULOSE
# Specification Sheet for JustFiber® L20 FCC

JustFiber L20 FCC meets or exceeds the monograph requirements for Powdered Cellulose as published in the Food Chemicals Codex, 4th Edition, Pages 96-97. It is formulated to improve the flow of shredded and granulated cheese when used at levels of up to 2.0%.

## Chemical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Assay, % Cellulose</td>
<td>97.0 - 102.0</td>
</tr>
<tr>
<td>pH (10% suspension)</td>
<td>5.0 - 7.5</td>
</tr>
<tr>
<td>Loss on Drying, %</td>
<td>Not More Than 7.0</td>
</tr>
<tr>
<td>Water Soluble Substances, %</td>
<td>Not More Than 1.5</td>
</tr>
<tr>
<td>Ash (total), %</td>
<td>Not More Than 0.3</td>
</tr>
<tr>
<td>Chloride, %</td>
<td>Not More Than 0.05</td>
</tr>
<tr>
<td>Sulfur, %</td>
<td>Not More Than 0.01</td>
</tr>
<tr>
<td>Heavy Metals, ppm as Lead</td>
<td>Not More Than 10.0</td>
</tr>
</tbody>
</table>

## Microbiological Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Standard Plate Count, per g</td>
<td>Not More Than 1,000</td>
</tr>
<tr>
<td>Yeast and Mold, per g</td>
<td>Not More Than 100</td>
</tr>
<tr>
<td>Listeria (25 g sample)</td>
<td>Negative</td>
</tr>
<tr>
<td>Salmonella (25 g sample)</td>
<td>Negative</td>
</tr>
<tr>
<td>E. Coli (25 g sample)</td>
<td>Negative</td>
</tr>
</tbody>
</table>

## Physical Properties

<table>
<thead>
<tr>
<th>Property</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Appearance</td>
<td>Fine Creamy Powder</td>
</tr>
<tr>
<td>Apparent Density</td>
<td>Approximately 16 lbs./ft³</td>
</tr>
<tr>
<td>On 40-Mesh</td>
<td></td>
</tr>
<tr>
<td>Thru 100-Mesh</td>
<td></td>
</tr>
<tr>
<td>Thru 200-Mesh</td>
<td></td>
</tr>
<tr>
<td>LT 1%</td>
<td></td>
</tr>
<tr>
<td>NMCT 90%</td>
<td></td>
</tr>
<tr>
<td>NMT 70%</td>
<td></td>
</tr>
</tbody>
</table>

## Recommended Labeling

Cellulose

CAS Number: 9004-34-6

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The information contained herein is to the best of our knowledge, correct. The data obtained from the appropriate tests are included only as a matter of information. Also, we may suggest laboratory supplies for implementing this ingredient into a product. However, it is the user's responsibility to comply with applicable government regulations and standards. The information is intended for use by trained technical people and is not to be used for evaluation of products on the basis of this information. It is suggested that you consult with your legal and technical advisors before using any of our products. The information contained herein should not be considered to constitute or imply a license under any patents, granted or pending, issued to a subsidiary of Daiichi Kigenso Kosan Co. Ltd. or to a licensee of the Daiichi Kigenso Kosan Co. Ltd. or Daiichi Kigenso Kogyo Co. Ltd.
PRODUCT: POWDERED CELLULOSE
GRADE: JUSTFIBER® 20

**BENEFITS:**
JustFiber® 20 powdered cellulose anti-caking agent is formulated to improve the flow of shredded and grated cheeses. A level of up to 2% by weight is recommended. JustFiber® 20 is GRAS.

**CHEMICAL PROPERTIES:**
- Assay (% Cellulose)
- Dietary Fiber Content (DM: 42)
- Ash (%)
- PH (10% Suspension)
- Heavy Metals, ppm as Pb
- Sulfur (Total %)
- Water Soluble Substances (%)
- Chloride (%)
- Arsenic ppm
- Moisture (%)  H2O

**PHYSICAL PROPERTIES:**
- Appearance: White
- Average Fiber Length (microns): 35
- Bulk Density: 120-150 CC/50 GRAM
- Apparent Density: 18 LBS/CU.FT.
- Particle Size: 345 Mesh -100 mesh -20 mesh

**MICROBIOLOGICAL ASSAYS:**
- Total Plate Count: NMT 500/GRAM
- E. coli (10 g): NMT 100/GRAM
- Salmonella (in 100 g): Negative
- Yeast: NMT 200/GRAM
- Mold: Negative
- Listeria monocytogenes: Negative

**INGREDIENT DECLARATION:**
This information is presented for your consideration in the belief that it is accurate and reliable; however, no warranty either expressed or implied is made and no freedom from liability from patent, trademark, or other limitations should be inferred.

Ketty Supply, Inc., P.O. Box 100, Amboy, NY 14415
Telephone: 715-237-3614 Fax: 715-237-4893
MICROCRYSTALLINE CELLULOSE

MSDS Number: C1683 — Effective Date: 03/24/00

1. Product Identification

Synonyms: Cellulose; flour cellulose
CAS No.: 9004-34-6
Molecular Weight: Not applicable.
Chemical Formula: (C6H10O5)x
Product Codes:
J.T. Baker: 1525, 1528, 1529
Mallinckrodt: H139

2. Composition/Information on Ingredients

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CAS No</th>
<th>Percent</th>
<th>Hazardous</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose</td>
<td>9004-34-6</td>
<td>100%</td>
<td>Yes</td>
</tr>
</tbody>
</table>

3. Hazards Identification

Emergency Overview

WARNING! POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES. COMBUSTIBLE SOLID.

http://www.jtbaker.com/msds/c1683.htm

6/29/2001
J.T. Baker SAF-T-DATA™ Ratings (Provided here for your convenience)

Health Rating: 0 - None
Flammability Rating: 1 - Slight
Reactivity Rating: 0 - None
Contact Rating: 0 - None
Lab Protective Equip: GOGGLES; LAB COAT; CLASS A EXTINGUISHER
Storage Color Code: Orange (General Storage)

Potential Health Effects

Inhalation:
No adverse health effects expected. Treat as a nuisance dust.

Ingestion:
Large doses may cause gastro-intestinal upset.

Skin Contact:
No adverse effects expected.

Eye Contact:
No adverse effects expected but dust may cause mechanical irritation.

Chronic Exposure:
No information found.

Aggravation of Pre-existing Conditions:
No information found.

4. First Aid Measures

Inhalation:
Remove to fresh air. Get medical attention for any breathing difficulty.

Ingestion:
If large amounts were swallowed, give water to drink and get medical advice.

Skin Contact:
Wash exposed area with soap and water. Get medical advice if irritation develops.

Eye Contact:
In case of contact, immediately flush eyes with plenty of water for at least 15 minutes, lifting upper and lower eyelids occasionally. Call a physician if irritation persists.

5. Fire Fighting Measures

Fire:
As with most organic solids, fire is possible at elevated temperatures or by contact with an ignition source. Contact with strong oxidizers may cause fire.

Explosion:
Fine dust dispersed in air in sufficient concentrations, and in the presence of an ignition source is a potential dust explosion hazard. For Cellulose: Minimum ignition temperature,
dust cloud: 410C. Minimum explosible concentration: 0.045 g/l.

**Fire Extinguishing Media:**
Water, dry chemical, foam or carbon dioxide. **CAUTION:** Pressure from the extinguishing media may cause severe dusting. Dispersed powder in air can create a severe explosion hazard.

**Special Information:**
In the event of a fire, wear full protective clothing and NIOSH-approved self-contained breathing apparatus with full facepiece operated in the pressure demand or other positive pressure mode.

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6. **Accidental Release Measures**

Remove all sources of ignition. Ventilate area of leak or spill. Wear appropriate personal protective equipment as specified in Section 8. Spills: Clean up spills in a manner that does not disperse dust into the air. Use non-sparking tools and equipment. Reduce airborne dust and prevent scattering by moistening with water. Pick up spill for recovery or disposal and place in a closed container.

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7. **Handling and Storage**

Avoid dust formation and control ignition sources. Employ grounding, venting and explosion relief provisions in accord with accepted engineering practices in any process capable of generating dust and/or static electricity. Empty only into inert or non-flammable atmosphere. Emptying contents into a non-inert atmosphere where flammable vapors may be present could cause a flash fire or explosion due to electrostatic discharge. Containers of this material may be hazardous when empty since they retain product residues (dust, solids); observe all warnings and precautions listed for the product.

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8. **Exposure Controls/Personal Protection**

**Airborne Exposure Limits:**
- OSHA Permissible Exposure Limit (PEL): 15 mg/m\(^3\) total dust, 3 mg/m\(^3\) respirable fraction for nuisance dust.
- ACGIH Threshold Limit Value (TLV): 10 mg/m\(^3\) total dust containing no asbestos and < 1% crystalline silica for Particulates Not Otherwise Classified (PNOC).

**Ventilation System:**
A system of local and/or general exhaust is recommended to keep employee exposures as low as possible. Local exhaust ventilation is generally preferred because it can control the emissions of the contaminant at its source, preventing dispersion of it into the general work area. Please refer to the ACGIH document, *Industrial Ventilation: A Manual of Recommended Practices*, most recent edition, for details.

**Personal Respirators (NIOSH Approved):**

http://www.ibtaker.com/msds/c1683.htm

6/29/2001
If the exposure limit is exceeded, a half-face dust/mist respirator may be worn for up to ten times the exposure limit or the maximum use concentration specified by the appropriate regulatory agency or respirator supplier, whichever is lowest. A full-face piece dust/mist respirator may be worn up to 50 times the exposure limit, or the maximum use concentration specified by the appropriate regulatory agency, or respirator supplier, whichever is lowest. For emergencies or instances where the exposure levels are not known, use a full-facepiece positive-pressure, air-supplied respirator. WARNING: Air-purifying respirators do not protect workers in oxygen-deficient atmospheres.

Skin Protection:
Wear protective gloves and clean body-covering clothing.

Eye Protection:
Use chemical safety goggles and/or full face shield where dusting or splashing of solutions is possible. Maintain eye wash fountain and quick-drench facilities in work area.

9. Physical and Chemical Properties

Appearance:
White crystalline powder.

Odor:
Odorless.

Solubility:
Insoluble in water.

Bulk Density:
0.3 g/cc

pH:
No information found.

% Volatiles by volume @ 21°C (70°F):
No information found.

Boiling Point:
No information found.

Melting Point:
No information found.

Vapor Density (Air=1):
No information found.

Vapor Pressure (mm Hg):
No information found.

Evaporation Rate (Bu/Al=1):
No information found.

10. Stability and Reactivity

Stability:
Stable under ordinary conditions of use and storage.

Hazardous Decomposition Products:
Carbon dioxide and carbon monoxide may form when heated to decomposition.

Hazardous Polymerization:

http://www.jtbaker.com/msds/c1683.htm

6/29/2001
Will not occur.

Incompatibilities:
Strong oxidizing agents.

Conditions to Avoid:
Heat, flame, ignition sources, dusting, air, and incompatibles.

11. Toxicological Information

Oral rat LD50: > 5,000 mg/kg; inhalation rat LC50: > 5,800 mg/m3/4-hour; skin rabbit LD50: > 2,000 mg/kg.

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>Known</th>
<th>Anticipated</th>
<th>IARC Category</th>
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<tbody>
<tr>
<td>Cellulose (9004-34-6)</td>
<td>No</td>
<td>No</td>
<td>None</td>
</tr>
</tbody>
</table>

12. Ecological Information

Environmental Fate:
No information found.

Environmental Toxicity:
No information found.

13. Disposal Considerations

Whatever cannot be saved for recovery or recycling should be managed in an appropriate and approved waste disposal facility. Processing, use or contamination of this product may change the waste management options. State and local disposal regulations may differ from federal disposal regulations. Dispose of container and unused contents in accordance with federal, state and local requirements.

14. Transport Information

Not regulated.

15. Regulatory Information

http://www.itbaker.com/msds/c1683.htm

6/29/2001
### Chemical Inventory Status - Part 1

<table>
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<tr>
<th>Ingredient</th>
<th>TEOCA</th>
<th>EC</th>
<th>Japan</th>
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<tr>
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### Chemical Inventory Status - Part 2

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<th>MSDS</th>
<th>Phil.</th>
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<tbody>
<tr>
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<td>Yes</td>
<td>Yes</td>
<td>No</td>
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</table>

### Federal, State & International Regulations - Part 1

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>RCRA</th>
<th>SARA 302</th>
<th>SARA 313</th>
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<tbody>
<tr>
<td>Cellulose (9004-34-6)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

### Federal, State & International Regulations - Part 2

<table>
<thead>
<tr>
<th>Ingredient</th>
<th>CERCLA</th>
<th>TSCA 261.33</th>
<th>SARA 311/312</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cellulose (9004-34-6)</td>
<td>No</td>
<td>No</td>
<td>No</td>
</tr>
</tbody>
</table>

Chemical Weapons Convention: No  
TSCA 12(b): No  
CDTA: No  
SARA 311/312: Acute: No  
Chronic: No  
Fire: No  
Pressure: No  
Reactivity: No  
(Pure / Solid)

Australian Hazchem Code: No information found.  
Poison Schedule: No information found.

WHMIS:  
This MSDS has been prepared according to the hazard criteria of the Controlled Products Regulations (CPR) and the MSDS contains all of the information required by the CPR.

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16. Other Information

**NFPA Ratings:**  
Health: 0  
Flammability: 1  
Reactivity: 0

**Label Hazard Warning:**  
**WARNING! POWDERED MATERIAL MAY FORM EXPLOSIVE DUST-AIR MIXTURES. COMBUSTIBLE SOLID.**

**Label Precautions:**  
Minimize dust generation and accumulation.  
Keep away from heat, sparks and flame.  
Keep container closed.  
Use only with adequate ventilation.

**Label First Aid:**  
Not applicable.

**Product Use:**  
Laboratory Reagent.

**Revision Information:**

http://www.jtobaker.com/msds/c682.htm  
6/29/2001
Mallinckrodt Baker, Inc. provides the information contained herein 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 using this product. Individuals receiving the information must exercise their independent judgment in determining its appropriateness for a particular purpose. MALLINCKRODT BAKER, INC. MAKES NO REPRESENTATIONS OR WARRANTIES, EITHER EXPRESS OR IMPLIED, INCLUDING WITHOUT LIMITATION ANY WARRANTIES OF MERCHANTABILITY, FITNESS FOR A PARTICULAR PURPOSE WITH RESPECT TO THE INFORMATION SET FORTH HEREIN OR THE PRODUCT TO WHICH THE INFORMATION REFERS. ACCORDINGLY, MALLINCKRODT BAKER, INC. WILL NOT BE RESPONSIBLE FOR DAMAGES RESULTING FROM USE OF OR RELIANCE UPON THIS INFORMATION.

Prepared by: Strategic Services Division
Phone Number: (314) 539-1600 (U.S.A.)
1.0 Description

1.1 It is used as an anticaking agent or thickener.

1.2 This product, as of the date of shipment or delivery, shall conform with all applicable provisions of the Federal Food, Drug and Cosmetic Act, as amended, any similar state or local regulation, the provisions of the Federal Act as it pertains to articles being introduced into interstate commerce, and will not be adulterated or misbranded within the meaning of any state or local laws or ordinances and regulations promulgated thereunder having jurisdiction of said product.

1.3 This product must be manufactured in accordance with good manufacturing practices and comply with all applicable regulatory requirements.

2.0 Physical Characteristics

2.1 Appearance/Visual -- Fine, white powder.

2.2 Flavor/Aroma -- Odorless.

2.3 Particle Size -- screen residue maximum of 3% on 50µm. 15% maximum on 32 µm.

3.0 Chemical

3.1 Cellulose content 97 - 102%

3.2 Arsenic ≤ 1 ppm

3.3 Chloride ≤ 0.07 %

3.4 Oxide ash (850°C, 4h) ≤ 0.35%

3.5 Heavy Metals ≤ 10 ppm

3.6 Loss on drying (105°C, 2 h) ≤ 7%

3.7 pH 5.0 - 7.5

3.8 Sulfur ≤ 0.01 %

3.9 Water-soluble substances ≤ 1.5 %

3.10 Bulk Density approx. 220 g/l

(cont'd)
<table>
<thead>
<tr>
<th>Section</th>
<th>Description</th>
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<tbody>
<tr>
<td>4.0</td>
<td>Ingredients</td>
</tr>
<tr>
<td>4.1</td>
<td>Natural cellulose fibre</td>
</tr>
<tr>
<td>5.0</td>
<td>Packaging</td>
</tr>
<tr>
<td>5.1</td>
<td>Multilayer Polycoated Paper bag</td>
</tr>
<tr>
<td>6.0</td>
<td>Storage</td>
</tr>
<tr>
<td>6.1</td>
<td>Cool, dry conditions</td>
</tr>
<tr>
<td>7.0</td>
<td>Shelf Life</td>
</tr>
<tr>
<td>7.1</td>
<td>5 years</td>
</tr>
</tbody>
</table>
CONFIRMATION

We herewith confirm that our VITACEL / VIVAPUR products

- i.e. WHEAT FIBRE, APPLE FIBRE, ORANGE FIBRE
  POWDERED CELLULOSE AND
  MICROCRYSTALLINE CELLULOSE

as well as our ARBOCEL celluloses

* do not contain any genetically modified materials,
* are not produced from genetically modified raw materials.

Furthermore, no genetically modified processing aids are used during the production of the VITACEL / VIVAPUR / ARBOCEL products.

As it is not intended to change either raw material source or production process this status of our products will remain.

Managing Director
J. RETTENMAIER & SOHN
Food Division
January 2000
Fax

To: Larry McKee  
From: Tom Brayton

At: International Filler  
Page: 1

Fax: 716-493-3528  
Date: 27 March, 2000

Tembec hereby certifies that its pulp products supplied to International Filler Corporation contains less than 0.1 parts per million and forms (2,3,7,8 TCDD/TDEP) and less than 1mg/l of residual chlorine.

Best Regards,

Tom Brayton
R&D Superintendent,
Specialty Cellulose

INTERNATIONAL FILLER CORPORATION
16 BRIDGE STREET, NORTH Tonawanda, NY 14120

LESLIE MacFARLANE
DIRECTOR OF SALES

716-475-0400  
Fax: 716-475-0409 Ext. 320
E-mail: leslie@internationalfiller.com

TOTAL P. 25
July 9, 1988

Mr. Brian Finn
International Paper
North Tonawanda, N.Y.

Dear Mr. Finn:

The intent of this note is to confirm that in our pulp delivered to International Paper, you will find no traces of turpentine and dioctane in parts per quinuadri (p.p.q.).

Thank you for your business.

Best Regards,

[Signature]

Mark Chatard
Customer Service Manager

NPLag
Viscose process for making regenerated cellulose food casings

The raw material for regenerated cellulose food casings is highly refined and purified wood pulp cellulose in sheet form. The wood pulp is made from southern hardwood and purchased by Viskase.

The process is started by steeping (soaking) wood pulp in sodium hydroxide solution to form alkali cellulose. After steeping the excess sodium hydroxide is removed by pressing. The alkali cellulose is shredded to form a fluffed alkali cellulose crumb. After aging the fluffed alkali cellulose crumb is reacted with carbon disulfide to form a cellulose xanthate crumb. This cellulose xanthate crumb is dissolved in aqueous sodium hydroxide to form viscose, filtered, ripened (aged), degermed, and extruded.

In extrusion the viscose is pumped through a die into a regeneration and coagulation bath. This bath contains aqueous sulfuric acid and sodium sulfate which converts the cellulose xanthate in the viscose to regenerated cellulose. The resulting seamless tube of regenerated cellulose is washed free of salts and chemical byproducts, plasticized with glycerine, dried and wound to form reels of casing.

In finishing, reels of casing are shirred onto rods to form pleated or folded casing. The resulting stick of casing contains 10 feet or more of casing compressed and pleated to form a hollow-bored stick 12 to 25 inches long. The sticks are packaged and sold to food processors for manufacture of the skinless hot dog and other sausage products.

[Diagram of viscose process]
NOJAX® Casings
Technical Data

NOJAX Casings is the Viskase Corporation trademark for small diameter cellulose casings. NOJAX Casings are produced in the form of shirred stocks designed for the production of hot dogs, small diameter cooked sausages, dry meat salamis and coarse ground fresh sausages. NOJAX Casings is suitable for high speed automatic stuffing machines, as well as for manual stuffing operations. NOJAX Casings are manufactured to ensure optimal performance on today's most modern high speed production lines, and are known in the industry as the most reliable casings available.

Availability

NOJAX Casings sticks are available with either closed ends for use on automatic stuffing equipment or with open ends for manual stuffing.

Value-added Processing Also Includes:

- E-Z REEL®, NOJAX Casings is available in all sizes to ensure perfect peelability.
- SHIRTING® NOJAX Casings, the world's first highly visible blue casing with a clear window for monitoring the color of the product, ensures thorough peeling of products.
- STRIPED® NOJAX Casings, designed to aid in differentiating production, is available with four stripes. Striped casing also helps ensure peeling of product.
- NOJAX Casings are available in Dark Cherry and Light Orange to color product when desired.
- NOJAX Casings are available in one color printing. Artwork is continuously printed on the casing.

<table>
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<tr>
<th>CASING SIZE</th>
<th>Recommended Stuffing</th>
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</thead>
<tbody>
<tr>
<td></td>
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<tr>
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<tr>
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<tr>
<td>25</td>
<td>.89-.91</td>
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<td>.91-.95</td>
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</tbody>
</table>

Viskase Corporation
6655 West 66th Street
Chicago, Illinois 60634 U.S.A.
Tel: 708/436-4300
Fax: 708/436-4412

Viskase Corporation
Asia Pacific/Latin America
6655 West 66th Street
Chicago, Illinois 60634 USA
Tel: 708/436-4200
Fax: 708/436-4721
TollFree: 877/436-4566

Supporting Services

Viskase Corporation offers customers distribution and inventory reduction savings on NOJAX Casings through its Palletization, Customer Pick-Up and 119-Day Order Programs. Contact a Viskase Corporation Technical Sales Representative in your area for information about these programs, or for additional technical information.

Storage - Handling

NOJAX Casings are ready to use and are delivered in special packages to retain the optimal moisture. Store in a cool, dry, and airtight place away from steam pipes or hot storage areas. Best storage temperatures are 40°-72°F (4°-24°C). Ensure that any unused casings are placed in tightly closed bags to restrict moisture loss.

IMPORTANT: Nothing in this brochure is to be taken as a warranty. Officers for your consideration only, the information provided herein represents our best knowledge and judgment. Viskase Corporation assumes no liability whatsoever in connection with the use of this information.
LETTER OF CERTIFICATION

VISKASE CORPORATION

CHICAGO, ILLINOIS 60638

THIS IS TO CERTIFY THAT THE CELLULOSE FOOD CASINGS produced by the VISKASE CORPORATION in Chicago, Illinois (BAR CODE # 60638) and in Osceola, Arkansas (BAR CODE #72370), are manufactured under the supervision of NATIONAL KASHRUT and are accordingly KASHRUTH ENDORSED—KOSHER/PAREVE.

Included in this certification are all varieties of:

NOJAX CASING

and

FIBROUS CASING.

For PASSOVER—Passover approved casings must bear a colored label on the cartons indicating NK Kosher/Pareve Passover.

This certification is valid through NOVEMBER 25, 1999, and is to be renewed at that time.

Sincerely yours,

NATIONAL KASHRUTH

[Signature]

Rabbi Yaakov Lipschutz
President
---Original Message---
From: Kelly Shea [mailto:KellyS@HORIZONORGANIC.com]
Sent: Friday, February 23, 2001 11:50 AM
To: 'Jim Pierce'
Subject: FW: 5 Commercial Availability opinions

Dear Jim,

Thanks for your e-mail, I would like to outline for you my research, analysis, and interpretation which leads me to believe cellulose for shreds does not need to be petitioned. Federal Register/Vol. 65, No. 246 (NOP Final Rule) page 82587, Preamble:

"To be added as an ingredient or used in the processing of a product labeled 'organic,' a minor ingredient must be from an organic agricultural source, if commercially available. If not commercially available, the ingredient must be an agricultural product or a substance consistent with the National List."

Federal Register/Vol. 65, No. 246 (NOP Final Rule) page 80638 205.2 Terms Defined

"Agricultural product. Any agricultural commodity or product, whether raw or processed, including any commodity or product derived from livestock, that is marketed in the United States for human or livestock consumption."

Federal Register/Vol. 65, No. 246 (NOP Final Rule) page 80616, Preamble:

"(7) Nonsynthetic Agricultural Processing Aids on the National List. A commenter requested clarification from the NOP on whether processing aids (e.g., defoaming agents), which are nonsynthetic and nonorganic agricultural substances (e.g., soybean oil), must appear on the National List when used in processing. In the this regulation, a nonsynthetic and nonorganic agricultural product, such as soybean oil, used as a processing aid does not
have to appear on the National List. Such products are included in the provision in section 205.606 that nonorganically produced agricultural products may be used in accordance with any applicable restrictions when the substance is not commercially available in organic form.

Cellulose, as casings, is a processing aid that is non-synthetic and is a non-organic agricultural substance. I deduce, based on the above, that it does not need to be petitioned. Cellulose, as a minor ingredient (in shredded cheese to prevent caking) is a product which is not commercially available as organic, is agricultural, and is not on the National List in section 205.606 as a "nonorganically produced agricultural products... with any applicable restrictions." I have diligently researched the cellulose used for shreds (including the manufacturing process for the cellulose, though this is not required) and feel very comfortable with my conclusions.

Therefore, I feel you may record this justification in your company files, focus on other items that definitely need petitioning, and save yourself, NOSB, and NOP a lot of time and money. Now keep in mind, I am neither a professional consultant nor an expert. What I am is a concerned colleague attempting to define and take the high road in a world, in a land where no one has the answer. We need to keep in mind, that rules and regulations are purposefully vague. Not for the purpose of leaving "loopholes" for mischief and harm. The purpose is to leave room for interpretation and prevent us from painting ourselves into a corner.
To: NOP
Re: Cellulose Review for Nat. List
Pages: 1 to 6

Attn: RICK MATHEWS
Date: September 25, 2001
Fax#: 202-690-3924

Dear Rick,

I was directed to you from Scott at OMRI. We produce certified organic fruit juices and beverages, and use a cellulose product to stabilize the fruit mash for pressing on a pack press. I have attached product information for your reference. In addition, we have done organochlorine compound analysis of the cellulose and of juice pressed with this material, and have not found any detectable residues. We also have not found an efficient alternative to the cellulose material which works for our process.

I hope this information is of use in assessing cellulose materials for inclusion in the National List. Please do not hesitate to call if we can supply any further information.

Sincerely,

John E. Warner M.Sc.
Quality control & Regulatory Affairs

Phone: (705) 748-6301  Fax: (705) 746-2733  Email: crofters@vianet.on.ca
Solka-Floc Powdered Cellulose Specification

Grade
10 (Industrial)

Organoleptic
White to cream colored, fibrous powder containing no obvious foreign material.

Screen Analysis
(No.-Tap, Tyler screens)
% on 35 mesh
Less Than 10
% through 100 mesh
Not Less Than 45
% through 200 mesh
Not Less Than 20

Bulk Volume, (cc/g)
5.5 ± 0.5

Ash (°C), %
Less Than 0.5

Iron, %
Less Than 0.005

Sulfur, %
Less Than 0.01

Note: Grade 10 used to be known as SW-40


The information contained herein is in the best of our knowledge correct. This data, statements, and representations made are dependent only as a guide for information. Users are urged to conduct additional tests for determining the appropriateness for their specific applications. FS&D assumes no responsibility for any injury or damage. Materials are furnished by FS&D and its subsidiaries on the condition that the purchaser shall determine the fitness of the materials furnished to meet specific requirements and FS&D makes no warranty, expressed or implied, whether of merchantability or fitness for a particular purpose. The information, statements, representations, and recommendations do not covey a license or imply the granting of a license or any other legal rights.
FAX TRANSMISSION

Date: August 6, 1997

To: Crofters Foods Limited
    P. O. Box 1030
    St. Catharines, Ontario

Attention: Mr. Gerhardt Lakte

Subject: Solka-floc Specifications

Dear Mr. Lakte:

On pages two and three of this message, I am transmitting:

- a sheet giving a general description of Solka-floc grades;
- a data sheet specific to grade 10.

The manufacturers of Solka-floc guarantee that the product meets the specifications of the monograph on Powdered Cellulose in the Food Chemicals Codex, 3rd Edition.

We appreciate our business with Crofters. Please do not hesitate to call whenever we may be of service.

Yours truly,

GENERAL FILTRATION
Division of Lee Chemicals Limited

Edward M. Bridge
Solka-Floc® is the trade name for a family of finely-divided fibrous products manufactured from purified cellulose. Its purity and controlled properties make it the ideal material for a wide range of applications.

### Filtration
Solka-Floc is an effective precoat aid or backwash agent in both liquid and air filtration. The fine cellulose fibers form a unique filter cake providing good flow rates resulting in high capacity filtered products.

### Rubber and Plastics
Solka-Floc is an excellent filler for a wide variety of rubber and plastic products. Solka-Floc improves dimensional stability, reduces heat shrinkage, improves impact strength and improves drying rate of rubber foams. Rubber and plastics applications for Solka-Floc include a wide variety of fireproofing needs for injection molding and rubber compounds for floor tiles, shoe soles, etc.

### Ceramics
Solka-Floc is a thixotropic aid used in the manufacture of ceramic products as a burn-out agent and to provide controlled porosity.

### Welding
Solka-Floc can be used for the manufacture of coated welding electrodes. It is used as a plasticizer, bulking agent, arc stabilizer, absorber and lubricant.

### General Industrial
Solka-Floc can be used as a binder, thickeners and thickening agent in products such as paints, varnishes and adhesives compounds. It also is used as the raw material in reacted cellulose products such as hydroxyethyl celluloses and hydroxyethyl cellulose.

#### SOLKA-FLOC® Properties and Grades

**Industrial Applications**

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<tr>
<th>Grade</th>
<th>Fiber Length</th>
<th>Bulk</th>
<th>Color</th>
<th>ASH</th>
<th>Water Retention</th>
<th>Screen Analysis (In-TAP TYLER)</th>
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<tr>
<td></td>
<td>(in or cm)</td>
<td>%</td>
<td></td>
<td>%</td>
<td>5% Mic. % 10 Mic. % 100 Mic.</td>
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</tbody>
</table>

* Alpine Air Dry Screen Analysis

**TYPICAL TEST DATA - NOT TO BE CONSTRUED AS SPECIFICATIONS**

---

**Headquarters**
Checkerboard Square • St. Louis, MO 63164
Phone: 800-313-7131

**SOLKA FLOC** is a registered trademark of FS&D Sales & Development Corporation.

**Sales Office**
166 Lyndale • Green Brook, NJ 08812
Phone: 908-966-5214 • Fax: 908-966-5117
Guarantee Service: 800-236-0351
MATERIAL SAFETY DATA SHEET

IDENTITY (As Used on Label):
HVECLOS® POWDERED CELLULOSE
SOCLA FLOC® POWDERED CELLULOSE

DESCRIPTION:
POWDERED CELLULOSE

CAS #: 9004-34-6

SECTION I
Manufacturer's Name
FIBER SALES AND DEVELOPMENT CORPORATION

Emergency Telephone Number
813-632-2101

Address
1219 Hussey Road
Urbana, OH 43074

Date Prepared
January 9, 1997

SECTION II.-- HAZARDOM/IDENTITY INFORMATION

Hazardous Components (Specific Chemical Identity/Other Common Name) USDA PER ADI/TLV Other Limits %

Total Dust
15 mg/m³ 10 mg/m³ --- N/A
Respirable
5 mg/m³ --- --- ---

SECTION III.-- PHYSICAL/CHEMICAL CHARACTERISTICS

Boiling Point
N/A

Density (g/cm³)
N/A

Vapor Pressure (mm Hg)
N/A

Melting Point
1.27-1.29

Vapor Density (Air = 1)
N/A

Evaporation Rate
Butyl Acetate = 1

Solubility in Water
Insoluble in water.

Appearance and Odor
Color: White
Odor: None

Makers of
SOCLA FLOC
2300 Pacific St. Louis, MO 63164
Phone: 800-353-7708

SOCLA FLOC is a registered trademark of Fiber Sales & Development Corporation

Sales Office
P.O. Box 865, Green Brook, NJ 08812-0865
Phone: 908-696-1224, Fax: 908-596-5117
Customer Service: 800-353-7708
SECTION IV -- FIRE AND EXPLOSION HAZARD DATA

Flash Point (Method Used): N/A
Flammable Limits: N/A
LFL N/A
UEL N/A
Minimum Ignition Energy Cloud (Joules): 0.20
Minimum Conc. for Explosion (mm./cu.ft.): 0.030
Minimum Ignition Temperature Layer (degrees C.): 340
Extinguishing Media: Water, Carbon-dioxide, dry chemical or foam

Special Fire Fighting Procedures:
In the event of a fire, wear full protective clothing and NIOSH Approved Self-Contained Breathing Apparatus.

Unusual Fire and Explosion Hazards:
None

SECTION V -- REACTIVITY DATA

Stability: Stable
Unstable

Conditions to Avoid: None

Incompatibility (Materials to Avoid): None

Hazardous Decomposition or Byproducts: None Known

Hazardous May Occur: None
Conditions to Avoid: None
Polymerization: Will Not Occur

SECTION VI -- HEALTH HAZARD INFORMATION

Route(s) of Entry: Inhalation
Inhalation: Yes
Skin: Yes
Ingestion: Yes

Health Hazards (Acute and Chronic):
Exposure to high concentrations of dust may result in upper respiratory tract; nose and throat irritation. An allergic reaction may occur in some persons due to inhalation of or contact with these products. PEL (OSHA Permissible Exposure Limit): For nuisance dust, 10 mg/m^3 for total dust and 5 mg/m^3 for respirable dust.

Carcinogenicity: NTP: None
IARC Monograph: None
OSHA Regulated: No
Signs and Symptoms of Exposure
Refer to health hazards listed above.

Medical Conditions

Generally Aggravated by Exposure
None known under proper usage conditions.

Emergency and First Aid Procedures
Eyes/Skin: Flush with water. Inhalation: If breathing difficulty occurs, remove to fresh air and call physician.

SECTION VII -- PRECAUTIONS FOR SAFE HANDLING AND USE

Steps to Be Taken In Case Material Is Released or Spilled
May be cleaned up with broom and shovel.

Waste Disposal Method
Disposal of in accordance with local, state and federal regulations

Precautions to Be Taken in Handling and Storing
Product should be stored on pallets without contact to walls, ceiling or floor. Storage areas should be well ventilated and free of strong and objectionable odors.

Other Precautions
Avoid open flames and spark sources.

SECTION VIII -- CONTROL MEASURES

Respiratory Protection (Specify Type): If dust levels exceed 15 mg/m³, a NIOSH approved dust mask is recommended.

Ventilation
Adequate to handle dust indigenous to operations.

Local Exhaust
If dusting occurs
Mechanical (General)
Not normally required

Protective Gloves
Not normally required

Other Protective Clothing or Equipment
None normally required

Work/Hygienic Practices
Use good personal hygiene practices as necessary for food products.
TO: Kim Burton  
FROM: Bob Parker  
COMPANY: USDA  
DATE: 07/26/01  
FAX NUMBER: 520-891-6397  
TOTAL NO OF PAGES INCLUDING COVER: 8  
PHONE NUMBER: 202-690-3655  
SENDER'S NUMBER:  
RE: Cellulase petition for NH, clandestum  
URGENT ☑ FOR REVIEW ☐ PLEASE COMMENT ☑ PLEASE REPLY ☐ PLEASE RECYCLE 

NOTES/COMMENTS:

Kim,

Can this information be included within the NH petition for cellulase?

Can cellulase be evaluated to be included in all organic products (processing) vs the use specified in the petition?

This information is also being forwarded to OMRI. Bob
Can this information be included in the new petition for cellulose?

Can cellulose be evaluated to be included in all organic products (processing) if use is specified in the petition?

This information is also being forwarded to OMB.
To: NOP
Attn: RICK MATHEWS
Re: Cellulose Review for Nat. List
Date: September 25, 2001
Fax#: 202-690-3924

Dear RICK:

I was directed to you from Scott at CDF. We produce certified organic fruit juices and beverages, and use a cellulose product to stabilize the fruit mesh for pressing on a jack

I was not aware of the organic compound analysis of the cellulose end of juice pressed with this material, and have not found any detectable residues. We also have not found an

Sincerely,

John E. Warner M.Sc.
Quality control & Regulatory Affairs

This information may be added to the NAL petition for cellulose, cellulose may be considered for use in

Phone: (703) 748-6291 Fax: (703) 748-3729 Email: crofter@vanetc.com
Dear NOP and NOSB:

Please find attached a letter from The J. M. Smucker Company in support of petitions for the allowance of cellulose in organic food processing.

Thank you.

Kathy Ellertson
The J. M. Smucker Company

(See attached file: cellulose letter of support.doc)
please include the document from Crofters as a letter of support for the petition of cellulose. I'm also going for forward to you the additional letters of support from Horizon and Smuckers in case you don't have them. These too should be in the TAP packet to the board.
Petitions should be submitted in duplicate to:
National Organic Standards Board,
c/o Robert Pooler, Agricultural Marketing Specialist,
USDA/AMS/TM/NOP, Room 2510-Sa., Ag Stop 0268,
P.O. Box 96456,
Washington, D.C. 20090-6456.
Phone: 202/720-3252.
Fax: 202/205-7808.
e-mail: nlpetition@usda.gov.

From: