



UNITED STATES OF AMERICA  
FEDERAL TRADE COMMISSION  
WASHINGTON, D.C. 20580

Division of Enforcement  
Bureau of Consumer Protection

June 26, 2012

Brett Ian Harris, Esq.  
Pisani & Roll LLP  
1629 K Street NW, Suite 300  
Washington, DC 20006

Dear Mr. Harris:

This is in reply to your letter requesting a Staff Advisory Opinion on behalf of your client, Naturally Advanced Technologies US Inc. ("NAT"). NAT seeks approval for use of the generic term "flax" for textile products manufactured from CRAiLAR® flax fibers and yarns. Your letter states that the CRAiLAR® process uses a decidedly different process to remove flax fibers from the flax plant than the process used to produce linen, resulting in a product with distinct and different characteristics than traditional linen. Specifically, rather than extracting flax fibers from the bast primarily through the physical methods described in your letter (*i.e.*, through breaking, scutching, and heckling following a retting process), you state the CRAiLAR® process involves the use of an enzymatic treatment to obtain a much finer, shorter fiber with performance characteristics more akin to cotton than linen. Because products made with CRAiLAR® fibers differ significantly from linen, you assert that describing products made from CRAiLAR® fibers as linen rather than flax would mislead and deceive consumers.

In particular, you state that products made from CRAiLAR® fibers differ from linen fabric, which is "smooth yet contains slubs (due to the length and lack of uniformity of the fibers), wrinkles easily, requires significant ironing, and typically must be air-dried after washing or dry-cleaned." You also state that textile products manufactured from CRAiLAR® fibers are soft and wear and wash like cotton, *i.e.*, they do not need significant ironing and can be washed and dried with other laundry.

In addition, you argue that, while the CRAiLAR® process produces flax fibers with attributes that differ significantly from those of linen, the chemical composition of the CRAiLAR flax fibers remains readily identifiable as flax. You explain that the CRAiLAR® process does not chemically change the flax but instead involves the further separation of the individual fibers to a degree not achievable through traditional linen manufacturing methods. Because the CRAiLAR® process does not result in chemically "regenerated fibers," you contend

the fibers are not “manufactured fibers” addressed in Section 303.7 of the Rules and Regulations Under the Textile Fiber Products Identification Act (“Rules”), 16 C.F.R. § 303.7, and that none of the fiber names established in this section (or the fiber names in ISO 2076:1999(E) which Section 303.7 incorporates) describe CRAiLAR® fibers accurately.

Finally, you note that describing CRAiLAR® fibers as flax rather than linen would be consistent with international standards and practice. You explain that ISO 6938:1984, “Textiles–Natural fibers–Generic names and Definitions,” defines the term “natural fibers” as “fibers which occur in nature; they can be categorized according to their origin into animal, vegetable and mineral fibers.” You add that, according to § 3.2.2.6 of this ISO standard, the fiber name “flax” is recognized as a standard name for certain bast fibers – specifically, “[f]iber from the stems of flax *Linum usitatissimum*.”<sup>1</sup>

Section 303.16(a)(1) of the Rules, 16 C.F.R. § 303.16(a)(1), requires that textile fiber products have labels disclosing the generic names and percentages by weight of the constituent fibers present in the product. Section 303.7 of the Rules, 16 C.F.R. § 303.7, sets forth the official list of generic names for manufactured fibers, such as polyester, nylon, and rayon. The Rules do not provide a comprehensive list of natural fiber names, although 16 C.F.R. § 303.6(a) identifies cotton, silk, and linen as acceptable fiber names.

Based on the information about the CRAiLAR® process and the attributes of the fibers you provide in your letter, we conclude that describing these fibers as flax on labels attached to textile fiber products made from the fibers would comply with the Rules. We also conclude that describing these fibers as linen rather than flax could mislead or deceive consumers. We base these conclusions on your assertions that the CRAiLAR® process involves a manner of obtaining flax fibers that does not chemically alter them, that the attributes of the fibers differ from those of linen, and that international standards and practice as well as the U.S. government recognize the use of the term “flax” to describe flax fibers that have not been chemically changed.

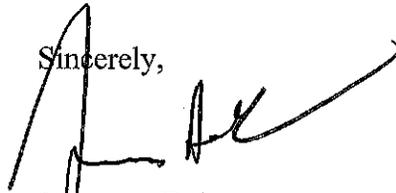
In accordance with Section 1.3(c) of the Commission’s Rules of Practice and Procedure, 16 C.F.R. § 1.3(c), this is a staff opinion only and has not been reviewed or approved by the Commission or by any individual Commissioner, and is given without prejudice to the right of the Commission later to rescind the advice and, where appropriate, to commence an enforcement action. In accordance with Section 1.4 of the Commission’s Rules of Practice and Procedure, 16

---

<sup>1</sup> You also note that the U.S. government uses “flax fiber” as the generic name for flax fibers. *E.g.*, Chapter 62 and Section 53 of the 2010 Harmonized Tariff Schedule of the United States, [www.usitc.gov/publications/docs/tata/hts/bychapter/1000c62.pdf](http://www.usitc.gov/publications/docs/tata/hts/bychapter/1000c62.pdf) and [www.usitc.gov/publications/docs/tata/hts/bychapter/1000C53.pdf](http://www.usitc.gov/publications/docs/tata/hts/bychapter/1000C53.pdf). In addition, the United States Department of Agriculture, Agricultural Research Service (“USDA-ARS”) established a flax fiber research facility named the “USDA Flax Fiber Pilot Plant” and in 2005 published an article in its monthly magazine, *Agricultural Research*, that was called, “Flax Fiber Offers Cotton Cool Comfort.” A copy of the USDA-ARS’s 2005 *Agricultural Research* article can be found here: [www.ars.usda.gov/is/AR/archive/nov05/fiber1105.htm](http://www.ars.usda.gov/is/AR/archive/nov05/fiber1105.htm).

C.F.R. § 1.4, your request for advice, along with this response, will be placed on the public record.

Sincerely,

A handwritten signature in black ink, appearing to read 'James A. Kohm', written over a horizontal line.

James A. Kohm  
Associate Director

**PISANI & ROLL LLP**

Robert J. Pisani\*  
Michael E. Roll \*\*  
Brett Harris\*\*\*  
\*Admitted in DC  
\*\*Admitted in CA  
\*\*\*Admitted in DC & NY

*Attorneys at Law*  
1629 K Street NW, Suite 300  
Washington, DC 20006  
202.466.0960 (t)  
877.674.5789 (f)  
[www.worldtradelawyers.com](http://www.worldtradelawyers.com)

1875 Century Park East, Suite 600  
Los Angeles, CA 90067  
310.826.4410 (t)  
877.674.5789 (f)

**Brett Ian Harris**  
**Direct Dial: (845) 255-1850**  
[bharris@worldtradelawyers.com](mailto:bharris@worldtradelawyers.com)

May 10, 2012

**BY E-MAIL AND FEDERAL EXPRESS**  
Federal Trade Commission  
600 Pennsylvania Avenue, NW  
Washington, DC 20580

Attention: Secretary of the Commission

**Re: Use of the Generic Term “Flax” For  
Textile Products Manufactured From  
CRAiLAR® Flax Fibers and Yarns**

To Whom It May Concern:

On behalf of our client, Naturally Advanced Technologies US Inc. (“NAT”), 696 McVey Avenue, Suite 202 Lake Oswego, OR 97034, we hereby request a Staff Advisory Opinion pursuant to 16 CFR Part 1 concerning the use of the generic term “flax” for textile products manufactured from CRAiLAR® flax fibers and yarns. We believe that this matter involves a substantial question of law and there is no clear Commission or court precedent to guide decision of this issue, which is of significant public interest. Moreover, this is not a hypothetical question, as such products will soon be entering the U.S. marketplace (see, for example, <http://tinyurl.com/dymmez>). Therefore, a Staff Advisory Opinion in this matter is warranted under the regulations.

We note that in an e-mail dated November 9, 2011, Mr. Steve Ecklund, Investigator with the Division of Enforcement of the Federal Trade Commission, informally agreed that the use of the generic term “flax” for textile products manufactured from CRAiLAR® flax fibers and yarns was proper and consistent the Textile Fiber Products Identification Act (“TFPIA”), 15 USC §§70-70k. A copy of this e-mail correspondence is attached for your reference as Exhibit A.

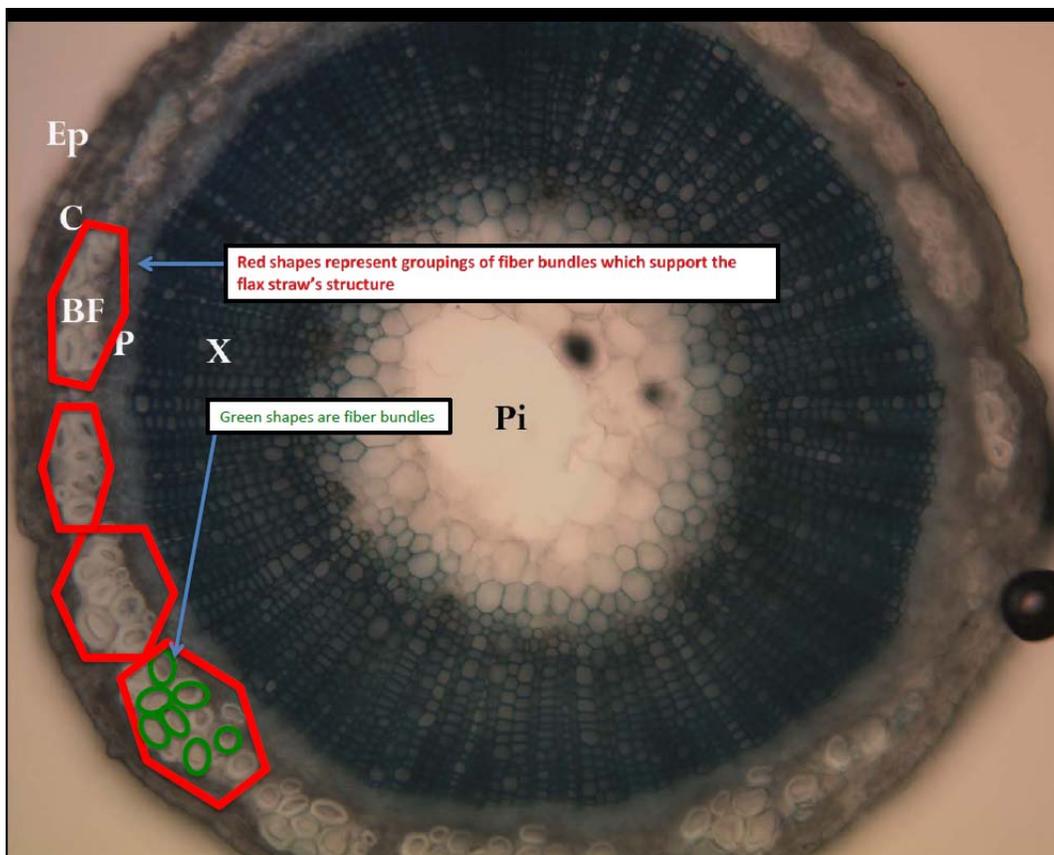
## **BACKGROUND**

### **I. Naturally Advanced Technologies US Inc.**

NAT develops renewable and environmentally sustainable biomass resources from flax, hemp and other bast fibers. The company, through its wholly owned subsidiary, CRAiLAR® Fiber Technologies Inc., has developed proprietary technologies for production of bast fibers, cellulose pulp, and their resulting by-products in collaboration with Canada's National Research Council. CRAiLAR® technology offers cost-effective and environmentally sustainable processing and production of natural, bast fibers resulting in increased performance characteristics for use in textile, industrial, energy, medical and composite material applications.

### **II. Traditional Flax Fiber Processing**

Flax fibers are collected from the phloem (the “inner bark” or the skin) or bast surrounding the stem of the flax plant. In the photograph below, bundles of these fibers are represented by the green ovals, which are grouped together in the bast:



Traditionally, the bundles of flax fibers used in the production of linen (represented by the green ovals above) are extracted from the bast using the following procedures<sup>1</sup>:

- **Retting** – Retting is the process of rotting away the inner stalk of the flax plant, leaving the outer fibers in the bast intact. After this process, the straw supported by long, coarse groupings of fiber bundles (represented by the red hexagons in the photograph above) remains.
- **Breaking** – Next, the straw is broken into short segments in order to help ease the removal of the outer straw from the stalk.
- **Scutching** – The scutching process is the first attempt to remove the straw and woody part of the stem from the flax fibers. Scutching can be done either by hand or by machine in a scutching mill. Hand scutching is done with a wooden scutching knife and a small iron scraper. Machine scutching, on the other hand, usually involves crushing the stalks between two metal rollers, which break the stalks so that parts of the stalk can be separated from the fibers. The fiber is extracted from aligned straw by beaters and combs in the scutching machine which removes shive and fiber which is not long enough for spinning on the linen system (known as “tow’ fiber).
- **Heckling** – In this process, the fiber is pulled through various different sized heckling combs or “heckles.” A heckle is a bed of “nails” – sharp, long-tapered, tempered, polished steel pins driven into wooden blocks at regular spacing. The first few rows of heckles will remove the straw as the fiber is pulled through, while the last rows will split and polish the fibers.

The end result of this traditional flax extraction process is flax fibers that are relatively long (ranging from about 25 to 150 cm in length) and average 12-16 micrometers in diameter. These fibers have a relatively coarse texture due to their irregular polygonal shapes and the fact that the fiber bundles remain bound together with lignin. When spun into yarns for textile manufacture, flax fibers extracted using this process yield fabrics with the characteristic properties of linen easily recognized by the public: linen fabric is smooth yet contains slubs (due to the length and lack of uniformity of the fibers), wrinkles easily, requires significant ironing, and typically must be air-dried after washing or dry-cleaned.

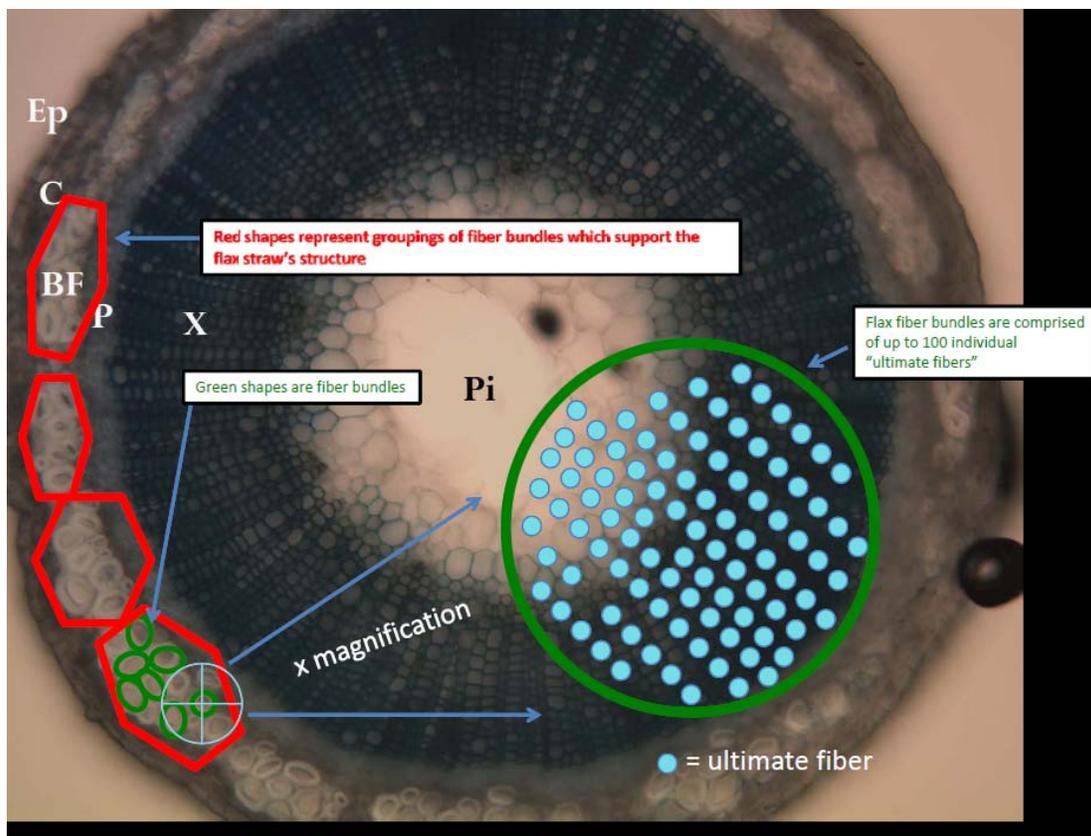
---

<sup>1</sup> See, generally, <http://en.wikipedia.org/wiki/Flax>.

### III. CRAiLAR® Flax Fiber Processing

The CRAiLAR® process uses a decidedly different approach to removing flax fibers from the flax plant, resulting in an end product with distinct and different characteristics than traditional linen. Rather than extracting flax fibers from the bast primarily through the physical methods described above (*i.e.*, through breaking, scutching and heckling following a retting process), the CRAiLAR® process involves enzymatic treatment of the bast to obtain a much finer, shorter-length fiber with performance characteristics more akin to cotton than linen.

Specifically, the CRAiLAR® process extracts flax fibers from decorticated flax bast skin by pre-treating the decorticated bast skin with an aqueous solution containing di-sodium citrate, tri-sodium citrate or a mixture thereof having a pH of from about 6-13 at temperature of about 90°C or less. The recovered fiber is subsequently treated with an enzyme. By removing the lignin binding the fibers together, this process permits the extraction of individual flax fibers (represented by the light-blue dots in the photograph below), rather than the bundles of such fibers that are the product of the traditional linen-making process described above.



Importantly, the chemical structure of the flax plant is not altered through the CRAiLAR® process, and these flax fibers are not “regenerated fibers” as that term is technically defined.<sup>2</sup> The CRAiLAR® process, in other words, does not involve a chemical transformation of natural organic polymers (such as that involved in the manufacture of rayon), but rather a physical transformation of the flax plant – specifically, a physical separation of the individual flax fibers in the plant to a degree unattainable through traditional means.

## **DISCUSSION**

### **I. Textile Fiber Products Identification Act Requirements**

The Textile Fiber Products Identification Act (“TFPIA”), 15 USC §§70-70k, requires marketers to attach a label to each covered textile product disclosing: (1) the generic names and percentages by weight of the constituent fibers in the product; (2) the name under which the manufacturer or other responsible company does business or, in lieu thereof, the registered identification number (“RN number”) of such company; and (3) the name of the country where the product was processed or manufactured.

The TFPIA regulations at 16 CFR §303.6(a) provide that “[e]xcept where another name is permitted under the Act and regulations, the respective generic names of all fibers present in the amount of 5 per centum or more of the total fiber weight of the textile fiber product shall be used when naming fibers in the required information; as for example: ‘cotton,’ ‘rayon,’ ‘silk,’ ‘linen,’ ‘nylon,’ etc.” Moreover, while 16 CFR §303.7 establishes generic names for certain manufactured fibers, and recognizes as acceptable the generic names for manufactured fibers, together with their respective definitions, set forth in International Organization for Standardization ISO 2076: 1999(E), “Textiles—Man-made fibers—Generic names,” there is no similar regulatory list or reference of acceptable natural fibers under the TFPIA.

### **II. CRAiLAR® Flax Fibers Are Not Accurately Described By The Generic Term “Linen”**

As noted earlier, the performance characteristics of flax fibers extracted using the CRAiLAR® process are different than those of flax fibers extracted with

---

<sup>2</sup> “A regenerated fiber is one formed when a natural polymer, or its chemical derivative, is dissolved and extruded as a continuous filament, and the chemical nature of the natural polymer is either retained or regenerated after the fiber formation process.” Kirk-Othmer Encyclopedia of Chemical Technology, Volume 10, Fourth Edition (1994), p. 696.

traditional methods and used in the manufacture of linen. CRAiLAR® flax fibers have the look and feel of cotton. Unlike linen, due to the finer, shorter-length fibers obtainable from the CRAiLAR® process, textile products manufactured from CRAiLAR® flax fibers are soft, and wear and wash like cotton<sup>3</sup> – in other words, CRAiLAR® flax fabrics do not need significant ironing and can be washed and dried with other regular laundry.

Thus, we believe that requiring textiles and textile products manufactured from CRAiLAR® flax to be labeled as “linen” under the TFPIA would be misleading and deceptive to consumers. As recognized by consumers in the marketplace, linen products are smooth but wrinkle easily and require significant ironing; moreover, linen products must typically be air-dried after washing or dry-cleaned. Textile products manufactured from CRAiLAR® flax do not share these performance characteristics, and thus it would be inaccurate to label such products as “linen”; indeed, to do so would surely constitute the very deceptive and unfair business practices that the FTC is charged to prevent.

### **III. CRAiLAR® Flax Fibers Are Accurately Described By The Generic Term “Flax”**

As explained above, while the performance characteristics of flax fibers extracted using the CRAiLAR® process are different than those of flax fibers used in the manufacture of linen, the chemical composition of CRAiLAR® flax fibers remains readily identifiable as that of flax. The CRAiLAR® manufacturing process does not involve a chemical change to the underlying flax fibers, but rather a physical change to the fiber groupings in the bast permitting further separation of the individual fibers to a degree not achievable through traditional flax manufacturing methods. CRAiLAR® flax fiber manufacturing, in other words, does not result in chemically “regenerated fibers,” and does not involve a chemical transformation of natural organic polymers.

Thus, CRAiLAR® flax fibers are not “manufactured fibers” under the TFPIA, and none of the generic names set forth in 16 CFR §303.7 or ISO 2076: 1999(E) accurately describe them. In contrast, the generic term “flax” accurately and completely describes the fibers manufactured using the CRAiLAR® process. International Organization for Standardization ISO 6938: 1984, “Textiles—Natural fibers—Generic names and Definitions,” defines the term “natural fibers” as “fibers which occur in nature; they can be categorized according to their origin

---

<sup>3</sup> In fact, CRAiLAR® flax’s performance attributes *exceed* those of cotton. CRAiLAR® flax fiber shrinks less than cotton, absorbs moisture better (wicking), and has increased dye uptake, which means it requires fewer chemicals to achieve the same depth of color as cotton.

into animal, vegetable and mineral fibers.” According to §3.2.2.6 of this standard, the fiber name “flax” is recognized as a standard name for certain bast fibers – specifically, “[f]iber from the stems of flax *Linum usitatissimum*.” CRAiLAR® flax fibers are fibers from the flax plant (*Linum usitatissimum*) that have been physically isolated – but not chemically regenerated – using an enzymatic process. Thus, they are properly and accurately described as “flax” under the accepted meaning of this generic term.

#### **IV. CONCLUSION**

CRAiLAR® flax fibers are “fibers from the stems of flax (*Linum usitatissimum*).” They are fibers from the flax plant that have been physically isolated and refined to a greater degree than previously possible. While there has been no chemical restructuring of the original flax fibers, the fine and short fiber resulting from CRAiLAR® process yields a product with performance and handling characteristics distinctly different than traditional linen products – so much so that requiring textile products manufactured from CRAiLAR® flax fibers to be labeled as “linen” would be misleading and confusing to consumers of these products in the marketplace. Therefore, we believe that the generic term “flax” is the most accurate description for textile products manufactured from CRAiLAR® flax fibers and yarns under the TFPIA. We ask that the Commission staff kindly confirm this conclusion.

If the Commission staff disagrees with this conclusion, we respectfully request the opportunity to meet with the official(s) responsible for making this decision before a final determination is rendered.

Please do not hesitate to contact Brett Harris at (845) 255-1850 if you have any questions or require additional information.

Sincerely,

Brett Ian Harris

# **EXHIBIT A**

## Brett Harris

---

**Subject:** RE: Response to Your Request for More Information Regarding "Flax Fiber"

---

**From:** Ecklund, Stephen C. [<mailto:SECKLUND@ftc.gov>]

**Sent:** Wednesday, November 09, 2011 5:09 AM

**To:** Mike Heilbronner

**Subject:** RE: Response to Your Request for More Information Regarding "Flax Fiber"

Dear Mr. Heilbronner:

Thank you for the information about Crailer® flax fiber.

Based on the information you provided, it appears that the term "flax fiber" is an appropriate designation for NAT's Crailer® flax fiber. It is also staff's opinion that it would be inappropriate to refer to Crailer® flax fiber as "linen."

As always, the views expressed in this email represent my views only and are not considered binding on the Commission. I cannot issue a ruling on this because I am not a Judge in Court and I am not the Commission in an official law enforcement action. The company remains responsible for compliance with the law regardless of anything stated or not stated by Commission staff. My statements and views are not legal advice. The company may wish to discuss the matter with a private law firm familiar with FTC labeling laws. Commission staff reserves the right to review this matter at a later time.

Sincerely,

Steve Ecklund, Investigator  
Division of Enforcement  
Federal Trade Commission  
600 Pennsylvania Ave., NW  
Washington, DC 20580  
Phone: 202-326-2841  
Fax: 202-326-2558  
Email: [secklund@ftc.gov](mailto:secklund@ftc.gov)

---

**From:** Mike Heilbronner [<mailto:mheilbronner@idealegal.com>]

**Sent:** Monday, October 03, 2011 7:44 PM

**To:** Ecklund, Stephen C.

**Subject:** Response to Your Request for More Information Regarding "Flax Fiber"

Dear Mr. Ecklund:

This email is in response to your request of September 26 for additional information regarding the use of "flax fiber" on content labels for NAT's Crailar flax fiber.

In your email of September 26, you asked for two types of additional information, namely, (1) information relating to flax as a natural fiber and the use of "flax fiber" as the appropriate generic designation; and (2) information about the differences between NAT's Crailar flax fiber and linen. Independently, you alerted me to the FTC's rulings and guidance regarding improper labeling of "bamboo" fiber.

The numbered items below respond in turn to these three subjects.

**1. Information Relating to Flax as a Natural Fiber and the Use of "Flax Fiber" as the Appropriate Generic Designation**

As demonstrated in my email of September 22, 2011, the ISO has determined that flax is a natural fiber with the generic name, “flax fiber.” While the FTC is not bound by the ISO’s determination, the ISO is obviously a trusted, independent source.

More importantly, the U.S. government itself uses “flax fiber” as the generic name for fibers derived from flax. By way of example, Chapter 62 of the 2010 Harmonized Tariff Schedule of the United States uses the phrase “flax fibers” to distinguish five separate tariff rates. See <http://www.usitc.gov/publications/docs/tata/hts/bychapter/1000c62.pdf>. Independently Heading 5303 of Section 53 of the U.S. 2010 Harmonized Tariff Schedule clearly acknowledges that flax is a “textile based fiber.” See <http://www.usitc.gov/publications/docs/tata/hts/bychapter/1000C53.pdf>

The USDA Agricultural Research Service (“USDA-ARS”) also uses “flax fiber” as the generic name for flax. Most notably, in 2004, the USDA-ARS established a flax fiber research facility in Clemson, SC that was named the “USDA Flax Fiber Pilot Plant.” Reporting on its own research at the “USDA Flax Fiber Pilot Plant” in 2005, the USDA-ARS published an article in its monthly magazine, *Agricultural Research*, that was called, “Flax Fiber Offers Cotton Cool Comfort.” A copy of the USDA-ARS’s 2005 *Agricultural Research* article can be found here: <http://www.ars.usda.gov/is/AR/archive/nov05/fiber1105.htm>. Notably, in addition to the title of the article, the article is replete with other references to “flax fibers.”

The 2005 *Agricultural Research* article is about the USDA-ARS’s research into the use of flax fibers for flax-based denim fabrics that could compete with cotton-based blends. As detailed in discussion below under heading number 2, this goal is exactly what NAT has achieved with Crailar.

Next, a 2008 article in the journal, *BioResources* (published by N.C. State University) discussed the USDA-ARS’s flax fiber research at the “USDA Flax Fiber Pilot Plant” and specifically distinguished the USDA-ARS’s goals for flax from the typical use of flax for linen, stating:

The objective of this work was, therefore, not long line fiber for traditional linen, but instead short staple fibers for blending with cotton and other fibers. The requirements to maintain long fiber length and other restrictions necessary for traditional linen could be avoided, and new methods could be explored to produce a total fiber product from diverse sources of flax.

A copy of the 2008 *BioResources* article can be found here:

[http://www.ncsu.edu/bioresources/BioRes\\_03/BioRes\\_03\\_1\\_0155\\_Foulk\\_AD\\_PectinolyticEnzymes\\_Retting.pdf](http://www.ncsu.edu/bioresources/BioRes_03/BioRes_03_1_0155_Foulk_AD_PectinolyticEnzymes_Retting.pdf). The flax fiber research conducted by the USDA-ARS at the USDA Flax Fiber Pilot Plant was also discussed in a research article called “Pilot plant for processing flax fiber” that was published in the journal, *International Crops and Products*. A copy of that article can be found here: <http://ddr.nal.usda.gov/bitstream/10113/4310/1/IND43702115.pdf>.

As detailed below in section 2, the “short staple fibers” contemplated in the 2008 *BioResources* article (as distinguished from the long fibers used for linen) are precisely the raw materials NAT uses for its Crailar flax fiber.

Notably, in January 2011, NAT and Hanesbrands (the well-known global apparel leader) announced a joint research partnership with the USDA-ARS to cultivate and evaluate the viability of various flax strains for producing Crailar. The project is being carried out in South Carolina and has an initial term of one year, with a renewal option of two additional years. You can read about the joint research of NAT, Hanesbrands, and the USDA-ARS here:

[http://www.textileworld.com/Articles/2011/January/NAT\\_Hanesbrands\\_USDA\\_Team\\_To\\_Conduct\\_Flax\\_Growing\\_Trials.html](http://www.textileworld.com/Articles/2011/January/NAT_Hanesbrands_USDA_Team_To_Conduct_Flax_Growing_Trials.html)

The U.S. government’s regular use and reference to “flax fiber” as the generic name for a natural fiber is obviously compelling, but perhaps the most interesting evidence that “flax fiber” is the generic name for a natural fiber comes from the website for the United Nations’ “International Year of Natural Fibers”:  
<http://www.naturalfibres2009.org/en/index.html>. As shown by that website, the United Nations proactively proposed and developed the “International Year of Natural Fibers,” which was held in 2009. More information about the history of

the “International Year of Natural Fibers” including its origins with the United Nations is discussed here: <http://www.naturalfibres2009.org/en/iynf/background.html>.

The website for the “International Year of Natural Fibers” has a dedicated page for flax as a natural fiber, and “flax fiber” appears several times on the page to generically designate the fiber from flax. Here is that dedicated flax page: <http://www.naturalfibres2009.org/en/fibres/flax.html>. As you can see from that page, not all flax textiles are linen. On the contrary, the flax page notes that *some* flax is used for linen (specifically, “fine and long flax fibres”), but that page *also* notes that “shorter flax fibers” are used for other textiles, including consumer products like towels, tents, canvas, furniture fabric, and sails.

Again, NAT’s Crailar flax fiber is comprised of these “shorter flax fibres” that are not used for linen. This important distinction is one of the subjects of the next section.

## **2. Information about the Differences Between NAT’s Crailar Flax Fiber and Linen**

There are two ways to discuss the differences between NAT’s Crailar flax fiber and linen.

First, there are critical technical distinctions between the two materials. Rather than explain these differences in this email, NAT has prepared the attached document, “NAT – Explanation of Linen v. Crailar Flax Fiber,” which consists of (i) a text discussion of pertinent technical distinctions; and (ii) a chart with a point-by-point comparison of some of the distinctions. Among others, the discussion and chart explain that NAT’s Crailar flax fiber is comprised of short bast flax fibers washed in a natural, enzymatic bath. The basic properties of the original short flax fibers are not altered, and they are readily distinct from linen derived from long flax fibers.

The second way to discuss the differences between NAT’s Crailar flax fiber and linen are the performance, market-based differences. Here, the focus is on the differences consumers experience with the two materials. If you’ve ever worn a linen garment, then you will readily understand these differences.

Linen has a relatively coarse texture. Linen wrinkles easily and requires significant ironing. Linen typically must be carefully washed and then air-dried, or it must be dry-cleaned.

In stark contrast and in the simplest terms, NAT’s Crailar flax fiber has the look, feel, and performance attributes of cotton. NAT’s Crailar is soft and naturally white, and it wears and washes like cotton. In other words, it is comfortable, does not need significant ironing, and can be washed and dried with other regular laundry.

In short, calling Crailar flax fiber “linen” would mislead and deceive consumers in the same way that labeling a linen garment as “cotton” would mislead and deceive consumers. By way of example, imagine that you bought a typical undershirt labeled “cotton” but, when you put on the undershirt, it had the look, feel, and performance traits of linen. Your expectation of a soft, user-friendly garment would differ greatly from the uncomfortable and user-unfriendly reality. Interestingly, Crailar’s performance attributes actually *exceed* those of cotton. Crailar flax fiber shrinks less than cotton, absorbs moisture better (wicking), and has increased dye uptake, which means it more efficiently achieves the same depth of color as cotton.

The cotton-like performance attributes of Crailar flax fiber have not gone unnoticed in the marketplace, and NAT has significant purchase, development, and production agreements for Crailar flax fiber with some of the world’s largest and most well known apparel and textile manufacturers.

By way of example, the online magazine *Smart Planet* (owned by CBS Interactive), recently wrote about NAT’s agreement with Levi Strauss & Co. (owner of the Levi’s and Dockers brands) for the development of Crailar-based denim. Notably, the title of the article is, “Levi’s eyes flax fiber for sustainable denim” (i.e., the title uses the generic “flax

fiber” to designate Crailar). A copy of the *Smart Planet* article can be found here:

<http://www.smartplanet.com/blog/smart-takes/levis-eyes-flax-fiber-for-sustainable-denim/15522>

Likewise, earlier this year, Hanesbrands and NAT signed a 10-year purchasing agreement for NAT’s flax fiber. This agreement is different than the NAT/Hanes/USDA-ARS research agreement discussed above in section 1. This purchasing deal was widely reported throughout the apparel industry. Here are just two examples: “Hanes Replaces Costly Cotton” <http://www.zacks.com/stock/news/51218/Hanes+Replaces+Costly+Cotton>; and “Flax Fiber Goes Mainstream through Major American Clothing Brand” <http://www.wendmag.com/greenery/2011/03/flax-fiber-goes-mainstream-through-major-american-clothing-brand/>. Please note the use of “flax fiber” in the title of the second article.

Most recently, NAT and Georgia-Pacific Consumer Products entered into a 3-year Crailar flax fiber supply agreement. This agreement and a previous agreement with Georgia-Pacific were also widely reported. Finally, NAT has also signed agreements involving Crailar flax fiber with several other global companies, including, Cintas Corporation, Ashland Inc., Westex Inc., Carhartt, and Hong Kong-based, Brilliant Global LTD. Details of these agreements can be found here: <http://www.naturallyadvanced.com/s/PressReleases.asp>

### **3. Whether Designating NAT’s Crailar as “Flax Fiber” Would Raise Issues Similar to the Problems with “Bamboo” Labeling**

I have reviewed the FTC’s ruling and guidance about the improper use of “bamboo” on labels for Rayon. That situation involved Rayon produced from reconstituted, pulped bamboo. As I am sure you are aware, Rayon can be produced from a variety of raw materials, but the comprehensive chemical processing of the raw materials leaves no trace of them in the final Rayon product. When Rayon is produced from bamboo, the basic properties of bamboo are destroyed, and the resulting fiber bears no resemblance to bamboo. For that reason, the “bamboo” label for Rayon was misleading.

NAT’s situation with Crailar has nothing in common with the reasons the “bamboo” label for Rayon was improper. The final Crailar product is fundamentally no different than the source raw materials, namely, short flax fiber raw materials. In short, Crailar is made from flax fiber, and Crailar is flax fiber that has been washed in a natural enzymatic bath.

In conclusion, the FTC’s rules require only that NAT use the generic name for a natural fibers. The FTC does not maintain an exclusive list of generic names for natural fibers. NAT’s Crailar fibers are nothing more than processed short flax fibers, and flax is obviously a natural crop. Accordingly, NAT is unaware of any FTC rule or regulation indicating that NAT’s Crailar product should be called anything other than “flax fiber,” and calling it “linen” would mislead and deceive consumers.

I would be happy to discuss this with you and/or other FTC personnel.

I realize this is a long email, and I greatly appreciate your consideration.

Mike Heilbronner

IdeaLegal, P.C.

[www.IdeaLegal.com](http://www.IdeaLegal.com)

[MHeilbronner@IdeaLegal.com](mailto:MHeilbronner@IdeaLegal.com)

Phone: (503) 449-9084

Fax: (503) 914-0301

1631 NE Broadway, No. 443

Portland, OR 97232



\*\*\* This email and any files transmitted with it are only for the intended recipient(s) and may be confidential and legally privileged. If you have received this email in error, please notify IdeaLegal, P.C. immediately and delete this e-mail without disclosing, copying, distributing or taking any action in reliance on the contents. \*\*\*

From: (845) 255-1850  
Brett Harris  
Pisani & Roll  
134 Guilford Schoolhouse Road  
  
New Paltz, NY 12561

Origin ID: OICA



J12101112190225

Ship Date: 10MAY12  
Act/Wgt: 1.0 LB  
CAD: 5345622/INET3250

Delivery Address Bar Code



SHIP TO: (202) 326-2098 **BILL SENDER**  
**Secretary of the Commission**

**Federal Trade Commission**  
**600 PENNSYLVANIA AVE NW**  
**WASHINGTON, DC 20580**

Ref # Naturally Advanced Technology  
Invoice #  
PO #  
Dept #

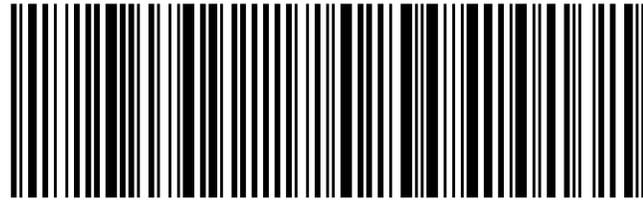
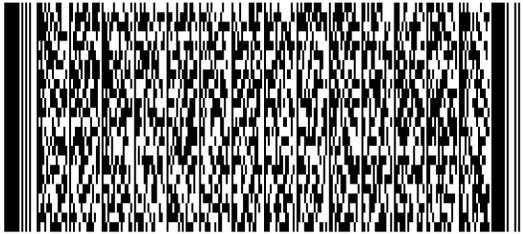
**FRI - 11 MAY A2**  
**STANDARD OVERNIGHT**

TRK# 7983 8129 8759

0201

**20580**  
DC-US  
**DCA**

**ZD RDVA**



512G3/61A4/A278

**After printing this label:**

1. Use the 'Print' button on this page to print your label to your laser or inkjet printer.
2. Fold the printed page along the horizontal line.
3. Place label in shipping pouch and affix it to your shipment so that the barcode portion of the label can be read and scanned.

**Warning:** Use only the printed original label for shipping. Using a photocopy of this label for shipping purposes is fraudulent and could result in additional billing charges, along with the cancellation of your FedEx account number.

Use of this system constitutes your agreement to the service conditions in the current FedEx Service Guide, available on fedex.com. FedEx will not be responsible for any claim in excess of \$100 per package, whether the result of loss, damage, delay, non-delivery, misdelivery, or misinformation, unless you declare a higher value, pay an additional charge, document your actual loss and file a timely claim. Limitations found in the current FedEx Service Guide apply. Your right to recover from FedEx for any loss, including intrinsic value of the package, loss of sales, income interest, profit, attorney's fees, costs, and other forms of damage whether direct, incidental, consequential, or special is limited to the greater of \$100 or the authorized declared value. Recovery cannot exceed actual documented loss. Maximum for items of extraordinary value is \$500, e.g. jewelry, precious metals, negotiable instruments and other items listed in our ServiceGuide. Written claims must be filed within strict time limits, see current FedEx Service Guide.