

**SCHEDULE A-1
TO PATENT COLLATERAL AGREEMENT**

**U.S. PATENT NUMBERS
AND PENDING U.S. PATENT APPLICATION NUMBERS**

| COUNTRY | PATENT/A PP NO. | TITLE | SUBJECT MATTER | SIGNIFICANCE TO BUSINESS | EXP. DATE |
|----------------------------|------------------------|---|--|--|---------------|
| U.S. (28053/30754) | Pat. No. 5294453 | Method of Removing Off- Flavor Components from Hydroxypropyl Starch Hydrolyzate Products | Removal of Mono and Di- Hydroxy Glucose | Material. Protects commercial opportunities | Mar.15, 2011 |
| U.S. (28053/37341) | Pat. No. 6303174 | Food Compositions Including Resistant Starch | Food Compositions Including Resistant Starch | Material. Key base technology patent | Dec. 24, 2013 |
| U.S. (28053/37756) | Pat. No. 6451367 | Food Compositions Including Resistant Starch | Food Compositions Including Resistant Starch | Material. Key base technology patent | Dec. 24, 2013 |
| U.S. (28053/9511) | Pat. No. 5110612 | Hydroxypropyl Starch Hydrolyzate Product | Hydroxypropyl Starch Hydrolyzate Product | Material. Protects commercial cooportunities | May 5, 2009 |
| U.S. (28053/37756A) | Appl. No. 10/233977 | Food Compositions Comprising Resistant Starch | Food Compositions Comprising Resistant Starch | Material. Key base technology patent | Dec. 24, 2013 |
| U.S. (28053/37955) | Appl. No. 10/009023 | Starch Sub-Types and Lipid Metabolism | Methods of Treating Obesity with Resistant Starch Compositions | Material. Key base technology patent | April 6, 2021 |
| U.S. (28053/38052) | Appl. No. 10/340935 | Food and Feed Compositions Including Resistant Starch | Animal Feed Compositions for Treatment of Scours | Material. Key base technology patent | Jan. 13, 2023 |
| U.S. (28053/38258) | Appl. No. 09/889085 | Improved Microbial Preparations | Microbial Preparations Grown on Resistant Starch Media | Material. Key base technology patent | Jan. 14, 2020 |

PATENT COLLATERAL AGREEMENT

This 7th day of October, 2003, PENFORD CORPORATION, a Washington corporation ("*Debtor*") with its principal place of business and mailing address at 7094 South Revere Parkway, Englewood, Colorado 80112 Attn: Chief Financial Officer, in consideration of ten dollars (\$10.00) and other good and valuable consideration, the receipt and sufficiency of which is hereby acknowledged, assigns, mortgages and pledges to HARRIS TRUST AND SAVINGS BANK, an Illinois banking corporation, as administrative agent, with its mailing address at 111 West Monroe Street, Chicago, Illinois 60603 Attn: Food Group, and its successors and assigns ("*Secured Party*"), and grants to Secured Party a continuing security interest in, the following property:

(i) Each patent and patent application listed on Schedule A-1 hereto and all of the inventions described and claimed therein and any and all reissues, continuations, continuations-in-part or extensions thereof; and

(ii) Each patent license listed on Schedule A-2 hereto and all royalties and other sums due or to become due under or in respect of each such patent license, together with the right to sue for and collect all such royalties and other sums; and

(iii) All proceeds of the foregoing, including without limitation any claim by Debtor against third parties for damages by reason of past, present or future infringement of any patent listed on Schedule A-1 hereto or of any patent licensed under a patent license listed on Schedule A-2 hereto, in each case together with the right to sue for and collect said damages;

to secure performance of all Secured Obligations of Debtor as set out in that certain Security Agreement bearing even date herewith by and among Debtor, Secured Party and the other parties thereto (the "*Security Agreement*").

Debtor does hereby further acknowledge and affirm that the rights and remedies of Secured Party with respect to the assignment, mortgage, pledge and security interest in the patents, patent applications and patent licenses made and granted hereby are more fully set forth in the Security Agreement.

IN WITNESS WHEREOF, Debtor has caused this Patent Collateral to be duly executed as of the date and year last above written.

PENFORD CORPORATION

By Stewart O. Cordier
Name Stewart O. Cordier
Title V.P. + CFO

ATTEST:

Margaret Von der Schmitz
Name: Margaret Von der Schmitz
Title: Corporate Controller

HARRIS TRUST AND SAVINGS BANK

By _____
Name _____
Title _____

IN WITNESS WHEREOF, Debtor has caused this Patent Collateral to be duly executed as of the date and year last above written.

PENFORD CORPORATION

By _____
Name _____
Title _____

ATTEST:

Name:
Title:

HARRIS TRUST AND SAVINGS BANK

By Karen L. Knudsen
Name KAREN L. KNUDSEN
Title VICE PRESIDENT

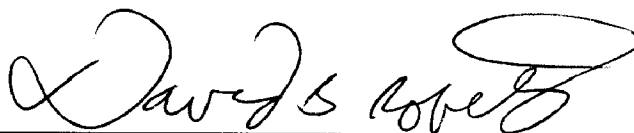
STATE OF ILLINOIS

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COUNTY OF COOK

I, David B. Roberts, a Notary Public in and for said County, in the State aforesaid, do hereby certify that KAREL L. KNUDSEN, VICE PRESIDENT of Harris Trust and Savings Bank, an Illinois banking corporation, who is personally known to me to be the same person whose name is subscribed to the foregoing instrument as such VICE PRESIDENT, appeared before me this day in person and acknowledged that he signed and delivered the said instrument as his own free and voluntary act and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth.

Given under my hand and notarial seal, this 7th day of October, 2003.



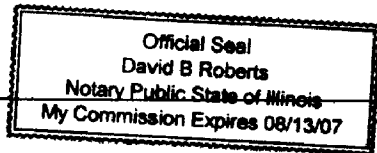
Notary Public

(NOTARIAL SEAL)

David B. Roberts

(Type or Print Name)

My Commission Expires:



STATE OF Colorado)
) SS
COUNTY OF Arapahoe)

I, Sara R Hudson a Notary Public in and for said County, in the State aforesaid, do hereby certify that Steve Cordier, VP, CFO of Penford Corporation, a Washington corporation, and Margaret Vander Schmidt controller of said corporation, who are personally known to me to be the same persons whose names are subscribed to the foregoing instrument as such VP and Controller Secretary, respectively, appeared before me this day in person and acknowledged that they signed and delivered the said instrument as their own free and voluntary act and as the free and voluntary act and deed of said corporation for the uses and purposes therein set forth; ~~and the said~~ ~~Secretary then and there acknowledged that he, as custodian of the corporate seal of said corporation, did affix the corporate seal of said corporation to said instrument as his own free and voluntary act and as the free and voluntary act of said corporation, for the uses and purposes therein set forth.~~ ST

Given under my hand and notarial seal, this 07 day of October, 2003.

(NOTARIAL SEAL)

Sara R Hudson
Notary Public

My Commission Expires:

Sara R Hudson
(Type or Print Name)

Sara R. Hudson, Notary Public
State of Colorado
My Commission Expires 2/15/2006

SCHEDULE A-2
TO PATENT COLLATERAL AGREEMENT

PATENT LICENSES

None