

U. S. SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM S-3
REGISTRATION STATEMENT
UNDER THE SECURITIES ACT OF 1933

ALTO INGREDIENTS, INC.
(Exact name of registrant as specified in its charter)

Delaware

(State or other jurisdiction of
incorporation or organization)

41-2170618

(I.R.S. Employer
Identification Number)

1300 South Second Street
Pekin, Illinois 61554
(916) 403-2123

(Address, including zip code, and telephone number, including area code, of registrant's principal executive offices)

Michael D. Kandris
President and Chief Executive Officer
Alto Ingredients, Inc.
1300 South Second Street
Pekin, Illinois 61554
(916) 403-2123

(Name, address, including zip code, and telephone number, including area code, of agent for service)

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Approximate date of proposed sale to the public: From time to time after this Registration Statement becomes effective.

If the only securities being registered on this Form are being offered pursuant to dividend or interest reinvestment plans, please check the following box.

If any of the securities being registered on this Form are to be offered on a delayed or continuous basis pursuant to Rule 415 under the Securities Act of 1933, other than securities offered only in connection with dividend or interest reinvestment plans, check the following box.

If this Form is filed to register additional securities for an offering pursuant to Rule 462(b) under the Securities Act, please check the following box and list the Securities Act registration number of the earlier effective registration statement for the same offering.

If this Form is a post-effective amendment filed pursuant to Rule 462(c) under the Securities Act, check the following box and list the Securities Act registration statement number of the earlier effective registration statement for the same offering.

If this Form is a registration statement pursuant to General Instruction I.D. or a post-effective amendment thereto that shall become effective upon filing with the Commission pursuant to Rule 462(e) under the Securities Act, check the following box.

If this Form is a post-effective amendment to a registration statement filed pursuant to General Instruction I.D. filed to register additional securities or additional classes of securities pursuant to Rule 413(b) under the Securities Act, check the following box.

Indicate by check mark whether the registrant is a large accelerated filer, an accelerated filer, a non-accelerated filer, a smaller reporting company, or an emerging growth company. See the definitions of "large accelerated filer," "accelerated filer," "smaller reporting company" and "emerging growth company" in Rule 12b-2 of the Exchange Act.

Large accelerated filer	<input type="checkbox"/>	Accelerated filer	<input checked="" type="checkbox"/>
Non-accelerated filer	<input type="checkbox"/>	Smaller reporting company	<input type="checkbox"/>
		Emerging growth company	<input type="checkbox"/>

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 7(a)(2)(B) of the Securities Act.

The Registrant hereby amends this registration statement on such date or dates as may be necessary to delay its effective date until the Registrant shall file a further amendment which specifically states that this registration statement shall thereafter become effective in accordance with Section 8(a) of the Securities Act of 1933 or until the registration statement becomes effective on such date as the Commission, acting under Section 8(a), may determine.

The information in this prospectus is not complete and may be changed. These securities may not be sold nor may offers to buy these securities be accepted prior to the time the registration statement filed with the Securities and Exchange Commission becomes effective. This prospectus is not an offer to sell these securities, and it is not soliciting an offer to buy these securities, in any state where the offer or sale is not permitted.

SUBJECT TO COMPLETION, DATED JUNE 23, 2023



ALTO INGREDIENTS, INC.

\$100,000,000

Debt Securities
Common Stock
Preferred Stock
Warrants
Units

This prospectus relates to the sale from time to time in one or more offerings of up to \$100,000,000 of debt securities, which we may issue in one or more series; shares of our common stock; shares of our preferred stock, which we may issue in one or more series or classes; warrants to purchase our debt securities, common stock or preferred stock; and units (collectively referred to as the “securities”).

We will provide the specific terms of any securities to be offered in one or more supplements to this prospectus. The prospectus supplements may also add, update or change information contained in this prospectus. This prospectus may not be used to offer and sell securities unless accompanied by a prospectus supplement.

When securities are offered under this prospectus, we will provide you with a prospectus supplement describing the specific securities being offered, the manner in which they are being offered, the offering price of the securities and the net proceeds from the sale of those securities. The securities may be offered separately or together in any combination or as a separate series. You should carefully read this prospectus and any accompanying prospectus supplement, together with any documents incorporated by reference herein and therein, before you invest in our securities. We may sell these securities to or through underwriters, to other purchasers, through dealers or agents or through any combination of these methods, on a continuous or delayed basis. For additional information on the methods of sale, you should refer to the section entitled “Plan of Distribution” in this prospectus. If any agents or underwriters are involved in the sale of any securities with respect to which this prospectus is being delivered, the names of such agents or underwriters and any applicable fees, commissions, discounts and over-allotment options will be set forth in a prospectus supplement. The price to the public of such securities and the net proceeds that we expect to receive from such sale will also be set forth in a prospectus supplement.

Our common stock is listed on The Nasdaq Capital Market under the symbol “ALTO.” On June 22, 2023, the last reported sale price of our common stock on The Nasdaq Capital Market was \$2.52.

Investing in our securities involves risks. Please carefully read the information under the headings “Risk Factors” beginning on page 3 of this prospectus, and “Item 1A – Risk Factors” of our most recent report on Form 10-K or Form 10-Q that are incorporated by reference herein, for factors you should consider before investing in any of our securities.

Neither the Securities and Exchange Commission nor any state securities commission has approved or disapproved of these securities or determined if this prospectus is truthful or complete. Any representation to the contrary is a criminal offense.

The date of this prospectus is _____, 2023.

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ABOUT THIS PROSPECTUS

This prospectus is part of a registration statement that we filed with the U.S. Securities and Exchange Commission, or the SEC, using a “shelf” registration process. By using a shelf registration statement, we may sell securities from time to time and in one or more offerings up to a total dollar amount of \$100,000,000 as described in this prospectus. Each time that we offer and sell securities, we will provide a prospectus supplement to this prospectus that contains specific information about the securities being offered and sold and the specific terms of that offering. We may also authorize one or more free writing prospectuses to be provided to you that may contain material

information relating to these offerings. The prospectus supplement or free writing prospectus may also add, update or change information contained in this prospectus with respect to that offering. If there is any inconsistency between the information in this prospectus and the applicable prospectus supplement or free writing prospectus, you should rely on the prospectus supplement or free writing prospectus, as applicable. Before purchasing any securities, you should carefully read both this prospectus and the applicable prospectus supplement (and any applicable free writing prospectuses), together with the additional information described under the headings “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference.”

We have not authorized anyone to provide you with any information or to make any representations other than those contained in this prospectus, any applicable prospectus supplement or any free writing prospectuses prepared by or on behalf of us or to which we have referred you. We take no responsibility for, and can provide no assurance as to the reliability of, any other information that others may give you. We will not make an offer to sell these securities in any jurisdiction where the offer or sale is not permitted. You should assume that the information appearing in this prospectus and the applicable prospectus supplement or free writing prospectus to this prospectus is accurate only as of the date on its respective cover, that the information appearing in any applicable free writing prospectus is accurate only as of the date of that free writing prospectus, and that any information incorporated by reference is accurate only as of the date of the document incorporated by reference, unless we indicate otherwise. Our business, financial condition, results of operations and prospects may have changed since those dates. This prospectus incorporates by reference, and any prospectus supplement or free writing prospectus may contain and incorporate by reference, market data and industry statistics and forecasts that are based on independent industry publications and other publicly available information. Although we believe these sources are reliable, we do not guarantee the accuracy or completeness of this information and we have not independently verified this information. In addition, the market and industry data and forecasts that may be included or incorporated by reference in this prospectus, any prospectus supplement or any applicable free writing prospectus may involve estimates, assumptions and other risks and uncertainties and are subject to change based on various factors, including those discussed under the heading “Risk Factors” contained in this prospectus, the applicable prospectus supplement and any applicable free writing prospectus, and under similar headings in other documents that are incorporated by reference into this prospectus. Accordingly, investors should not place undue reliance on this information.

When used in this prospectus, the terms “Alto Ingredients,” “we,” “our,” “us” and the “Company” refer to Alto Ingredients, Inc. and its consolidated subsidiaries, unless otherwise specified. Unless otherwise stated or indicated by context, the phrase “this prospectus” refers to the prospectus and any applicable prospectus supplement.

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CAUTIONARY NOTE REGARDING FORWARD-LOOKING STATEMENTS

This prospectus, each prospectus supplement and the information incorporated by reference in this prospectus and each prospectus supplement contain certain statements that constitute “forward-looking statements” within the meaning of Section 27A of the Securities Act of 1933, as amended, or the Securities Act, and Section 21E of the Securities Exchange Act of 1934, as amended, or the Exchange Act. The words “believe,” “may,” “will,” “estimate,” “continue,” “anticipate,” “intend,” “expect,” “could,” “would,” “project,” “plan,” “potentially,” “likely,” and similar expressions and variations thereof are intended to identify forward-looking statements, but are not the exclusive means of identifying such statements. Those statements appear in this prospectus, any accompanying prospectus supplement and the documents incorporated herein and therein by reference, particularly in the sections captioned “Business,” “Risk Factors” and “Management’s Discussion and Analysis of Financial Condition and Results of Operations” and include statements regarding the intent, belief or current expectations of our management that are subject to known and unknown risks, uncertainties and assumptions. You are cautioned that any such forward-looking statements are not guarantees of future performance and involve risks and uncertainties, and that actual results may differ materially from those projected in the forward-looking statements as a result of various factors.

Because forward-looking statements are inherently subject to risks and uncertainties, some of which cannot be predicted or quantified, you should not rely upon forward-looking statements as predictions of future events. The events and circumstances reflected in the forward-looking statements may not be achieved or occur and actual results could differ materially from those projected in the forward-looking statements. Except as required by applicable law, including the securities laws of the United States and the rules and regulations of the SEC, we do not plan to publicly update or revise any forward-looking statements contained herein after we distribute this prospectus, whether as a result of any new information, future events or otherwise.

In addition, statements that “we believe” and similar statements reflect our beliefs and opinions on the relevant subject. These statements are based upon information known to us as of the date of this prospectus, and although we believe such information forms a reasonable basis for such statements, such information may be limited or incomplete, and our statements should not be read to indicate that we have conducted a thorough inquiry into, or review of, all potentially available relevant information. These statements are inherently uncertain and investors are cautioned not to unduly rely upon these statements.

This prospectus and the documents incorporated by reference in this prospectus may contain market data that we obtain from industry sources. These sources do not guarantee the accuracy or completeness of the information. Although we believe that our industry sources are reliable, we do not independently verify the information. The market data may include projections that are based on a number of other projections. While we believe these assumptions to be reasonable and sound as of the date of this prospectus, actual results may differ from the projections.

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THE COMPANY

Overview

We are a leading producer and distributor of specialty alcohols and essential ingredients, and the largest producer of specialty alcohols in the United States.

We operate five alcohol production facilities. Three of our production facilities are located in Illinois, one is located in Oregon and another is located in Idaho. We have an annual alcohol production capacity of 350 million gallons, comprised of 210 million gallons of fuel-grade ethanol and up to 140 million gallons of specialty alcohols. We market and distribute all of the alcohols produced at our facilities as well as fuel-grade ethanol produced by third parties. In 2022, we marketed and distributed approximately 420 million gallons combined of our own alcohols as well as fuel-grade ethanol produced by third parties, and over 1.6 million tons of essential ingredients.

We report our financial and operating performance in three segments: (1) marketing and distribution, which includes marketing and merchant trading for company-produced alcohols and essential ingredients on an aggregated basis, and sales of fuel-grade ethanol sourced from third parties, (2) Pekin production, which includes the production and sale of alcohols and essential ingredients produced at our three production facilities located in Pekin, Illinois, which we refer to as our Pekin Campus, and (3) Other production, which includes the production and sale of renewable fuel and essential ingredients produced at all of our other production facilities on an aggregated basis, none of which is individually so significant as to be considered a separately reportable segment.

Our mission is to expand our business as a leading producer and distributor of specialty alcohols and essential ingredients. We intend to accomplish this goal in part by investing in our specialized and higher value specialty alcohol production and distribution infrastructure, expanding production in high-demand essential ingredients, expanding and extending the sale of our products into new regional and international markets, building efficiencies and economies of scale and by capturing a greater portion of the value stream.

Our wholly-owned subsidiary, Eagle Alcohol Company LLC, or Eagle Alcohol, specializes in break bulk distribution of specialty alcohols. Eagle Alcohol purchases bulk alcohol from suppliers and then stores, denatures, packages, and resells alcohol products in smaller sizes, including tank trucks, totes, and drums, that typically garner a premium price to bulk alcohols. Eagle Alcohol delivers products to customers in the beverage, food, industrial and related-process industries via its own dedicated trucking fleet and common carrier.

Production Segments

We produce specialty alcohols, fuel-grade ethanol and essential ingredients, focusing on four key markets: *Health, Home & Beauty*; *Food & Beverage*; *Essential Ingredients*; and *Renewable Fuels*. Products for the *Health, Home & Beauty* market include specialty alcohols used in mouthwash, cosmetics, pharmaceuticals, hand sanitizers, disinfectants and cleaners. Products for the *Food & Beverage* market include grain neutral spirits used in alcoholic beverages and vinegar as well as corn germ used for corn oils. Products for the *Essential Ingredients* markets include dried yeast, corn gluten meal, corn gluten feed, corn germ, and distillers grains and liquid feed used in commercial animal feed and pet foods. We also sell yeast for human consumption. Our *Renewable Fuels* products include fuel-grade ethanol and distillers corn oil used as a feedstock for renewable diesel and biodiesel fuels.

We produce our alcohols and essential ingredients at our production facilities described below. Our production facilities located in Illinois are in the heart of the Corn Belt, benefit from low-cost and abundant feedstock and enjoy logistical advantages that enable us to provide our products to both domestic and international markets via truck, rail or barge. Our production facilities located in Oregon and Idaho are near their respective fuel and feed customers, offering significant timing, transportation cost and logistical advantages.

Our production facilities were operating for all of the first quarter of 2023, except our Magic Valley production facility in Idaho, which we temporarily hot-idled on January 1, 2023 due to extreme natural gas prices, other unfavorable market conditions and to facilitate the installation of our new high protein systems. The facility was restarted in April 2023. All of our production facilities are currently operating. As market conditions change, we may increase, decrease or idle production at one or more operating facilities or resume operations at any idled facility.

Production Facility	Location	Annual Alcohol Production Capacity (estimated, in gallons)	
		Fuel-Grade Ethanol	Specialty Alcohol
Pekin Campus	Pekin, IL	110,000,000	140,000,000
Magic Valley	Burley, ID	60,000,000	—
Columbia	Boardman, OR	40,000,000	—

Marketing and Distribution Segment

We market and distribute all of the alcohols and essential ingredients we produce at our facilities. We also market and distribute alcohol produced by third parties.

We have extensive and long-standing customer relationships, both domestic and international, for our specialty alcohols and essential ingredients. These customers include producers and distributors of ingredients for cosmetics, sanitizers and related products, distilled spirits producers, food products manufacturers, producers of personal health/consumer health and personal care hygiene products, and global trading firms.

Our renewable fuel customers are located throughout the Western and Midwestern United States and consist of integrated oil companies and gasoline marketers who blend fuel-grade ethanol into gasoline. Our customers depend on us to provide a reliable supply of fuel-grade ethanol and manage the logistics and timing of delivery. Our customers collectively require fuel-grade ethanol volumes in excess of the supplies we produce at our facilities. We secure additional fuel-grade ethanol supplies from third-party ethanol producers. We arrange for transportation, storage and delivery of fuel-grade ethanol purchased by our customers through our agreements with third-party service providers in the Western United States as well as in the Midwest from a variety of sources.

We market our essential ingredient feed products to dairies and feedlots, in many cases located near our production facilities. These customers use our feed products for livestock as a substitute for corn and other sources of starch and protein. We sell our corn oil to poultry and biodiesel customers. We do not market essential ingredients from other producers.

Corporate Information

We are a Delaware corporation formed in February 2005. Our principal executive offices are located at 1300 Second Street, Pekin, Illinois 61554. Our telephone number is (916) 403-2123 and our Internet website is www.altoingredients.com. The content of our Internet website does not constitute a part of this prospectus.

RISK FACTORS

An investment in our securities involves a high degree of risk. The prospectus supplement applicable to each offering of our securities will contain a discussion of the risks applicable to an investment in our securities. Prior to making a decision about investing in our securities, you should carefully consider the specific factors discussed under the section in the applicable prospectus supplement captioned “Risk Factors,” together with all of the other information contained or incorporated by reference in the prospectus supplement or appearing or incorporated by reference in this prospectus. You should also consider the risks, uncertainties and assumptions discussed under “Part I—Item 1A—Risk Factors” of our most recent Annual Report on Form 10-K and in “Part II—Item 1A—Risk Factors” in our most recent Quarterly Report on Form 10-Q filed subsequent to such Form 10-K that are incorporated herein by reference, as may be amended, supplemented or superseded from time to time by other reports we file with the SEC in the future. The risks and uncertainties we have described are not the only ones we face. Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also affect us, our business and ownership of our securities. See “Where You Can Find Additional Information” and “Incorporation of Certain Information by Reference.”

USE OF PROCEEDS

We will retain broad discretion over the use of the net proceeds to us from the sale of our securities under this prospectus. Unless otherwise provided in the applicable prospectus supplement, we currently expect to use the net proceeds that we receive from this offering for working capital and other general corporate purposes. We may also use a portion of the net proceeds to acquire, license or invest in complementary products, technologies or businesses or for the repayment or refinancing of outstanding indebtedness; however, we currently have no agreements or commitments to complete any such transaction. The expected use of net proceeds of this offering represents our current intentions based on our present plans and business conditions. We cannot specify with certainty all of the particular uses for the net proceeds to be received upon the closing of this offering. Pending these uses, we plan to invest the net proceeds of this offering in short and intermediate term, interest-bearing obligations, investment grade instruments, certificates of deposit or direct or guaranteed obligations of the U.S. government.

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DESCRIPTION OF DEBT SECURITIES

The complete terms of the debt securities will be contained in the indenture and supplemental indenture applicable to the debt securities unless we are not required under the Trust Indenture Act of 1939, as amended, or the Trust Indenture Act, to issue the debt securities pursuant to an indenture. These documents have been or will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the indenture and supplemental indenture. You should also read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the debt securities that we may offer using this prospectus. Further terms of the debt securities will be stated in the applicable prospectus supplement. The following description and any description of the debt securities in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the applicable indenture and supplemental indenture (to the extent we are required to issue the debt securities pursuant to an indenture) and form of debt security.

General

We may issue debt securities, in one or more series, as either senior or subordinated debt or as senior or subordinated convertible or exchangeable debt. The senior debt securities will rank equally with any other unsubordinated debt that we may have and may be secured or unsecured. The subordinated debt securities will be subordinate and junior in right of payment, to the extent and in the manner described in the instrument governing the debt, to all or some portion of our senior indebtedness. Any convertible debt securities that we may issue will be convertible into or exchangeable for common stock or other securities of Alto Ingredients. Conversion may be mandatory or at your option and would be at prescribed conversion rates.

If we are required pursuant to the provisions of the Trust Indenture Act, the debt securities will be issued under one or more indentures, which are contracts between us and an eligible banking institution or other eligible party, as trustee. While the terms we have summarized below will apply generally to any debt securities that we may offer under this prospectus, we will describe the particular terms of any debt securities that we may offer, including debt securities that are issued under an indenture, in more detail in a prospectus supplement.

If required, we will issue the senior debt securities under the senior indenture that we will enter into with the trustee named in the senior indenture. If required, we will issue the subordinated debt securities under the subordinated indenture that we will enter into with the trustee named in the subordinated indenture. We have filed forms of these documents as exhibits to the registration statement of which this prospectus is a part. We use the term “indentures” to refer to both the senior indenture and the subordinated indenture.

The following summaries of the material provisions of the senior debt securities, the subordinated debt securities and the indentures (to the extent applicable to a particular issuance of our debt securities) are not complete and are qualified in their entirety by reference to all of the provisions of the indenture applicable to a particular series of debt securities. You should read the applicable prospectus supplement that we may authorize to be provided to you related to the series of debt securities being offered and, to the extent applicable, the complete indentures that contain the terms of the debt securities. Forms of indentures have been filed as exhibits to the registration statement of which this prospectus is a part, and we will file supplemental indentures and forms of debt securities containing the terms of the debt securities being offered under indentures as exhibits to the registration statement of which this prospectus is a part or such supplemental indentures will be incorporated by reference to reports that we file with the SEC. Except as we may otherwise indicate, the terms of the senior indenture and the subordinated indenture are identical.

The indentures will be qualified under the Trust Indenture Act. We use the term “indenture trustee” to refer to either the senior trustee or the subordinated trustee, as applicable.

The indentures do not limit the amount of other debt that we may incur and do not contain financial or similar restrictive covenants. The indentures do not contain any provision to protect holders of debt securities against a sudden or dramatic decline in our ability to pay our debt.

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The prospectus supplement will describe the debt securities offered and the price or prices at which we will offer the debt securities. The description will include:

- the title of the debt securities;
- whether the debt securities are senior debt securities or subordinated debt securities and, if subordinated debt securities, the related subordination terms;
- principal amount being offered, and, if a series, the total amount authorized and the total amount outstanding;
- any limit on the aggregate principal amount of the debt securities or the series of which they are a part;
- the date or dates on which we must pay the principal;
- whether the debt securities will be issued with any original issue discount;
- whether the debt securities are convertible into common stock or other securities or property and, if so, the terms and conditions upon which conversion will be effected, including the initial conversion price or conversion rate and any adjustments thereto and the conversion period;
- the rate or rates at which the debt securities will bear interest, if any, the date or dates from which interest will accrue, and the dates on which we must pay interest;

- whether and under what circumstances, if any, we will pay a premium or additional amounts on any debt securities;
- the place or places where we must pay the principal and any premium or interest on the debt securities;
- the terms and conditions on which we may redeem or retire any debt security, if at all;
- any obligation to redeem or repurchase any debt securities, and the terms and conditions on which we must do so;
- the denominations in which we may issue the debt securities if other than denominations of \$1,000 and any integral multiple thereof;
- the manner in which we will determine the amount of principal of or any premium or interest or additional amounts on the debt securities;
- the principal amount of the debt securities that we will pay upon declaration of acceleration of their maturity if other than 100%;
- the amount that will be deemed to be the principal amount for any purpose, including the principal amount that will be due and payable upon any maturity or that will be deemed to be outstanding as of any date;
- whether the debt securities will be secured or unsecured, and the terms of any secured debt;
- whether the debt securities are defeasible;
- if applicable, the terms of any right to convert debt securities into, or exchange debt securities for, shares of common stock or other securities or property;
- restrictions on transfer, sale or other assignment, if any;
- our right, if any, to defer payment of interest and the maximum length of any such deferral period;

- provisions for a sinking fund, purchase or other analogous fund, if any;
- whether we will issue the debt securities under indentures;
- whether we will issue the debt securities in the form of one or more global securities and, if so, the respective depositaries for the global securities and the terms of the global securities;
- any addition to or change in the events of default applicable to the debt securities and any change in the right of the trustee or the holders to declare the principal amount of any of the debt securities due and payable;
- any addition to or change in the covenants in the indentures, if any, including whether the indenture will restrict our ability or the ability of our subsidiaries to:
 - o incur additional indebtedness;
 - o issue additional securities;
 - o create liens;
 - o pay dividends or make distributions in respect of our capital shares or the capital shares of our subsidiaries;
 - o redeem capital shares;
 - o place restrictions on our subsidiaries' ability to pay dividends, make distributions or transfer assets;
 - o make investments or other restricted payments;
 - o sell or otherwise dispose of assets;
 - o enter into sale-leaseback transactions;
 - o engage in transactions with stockholders or affiliates;
 - o issue or sell shares of our subsidiaries; or
 - o effect a consolidation or merger;
- whether the indenture, if any, will require us to maintain any interest coverage, fixed charge, cash flow-based, asset-based or other financial ratios;
- a discussion of any material United States federal income tax considerations applicable to the debt securities;
- information describing any book-entry features;
- procedures for any auction or remarketing, if any; and
- any other specific terms, preferences, rights or limitations of, or restrictions on, the debt securities, including any events of default that are in addition to those described in this prospectus or any covenants provided with respect to the debt securities that are in addition to those described above, and any terms that may be required by us or advisable under applicable laws or regulations or advisable in connection with the marketing of the debt securities.

We may sell the debt securities at a substantial discount below their stated principal amount. We will describe United States federal income tax considerations, if any, applicable to debt securities sold at an original issue discount in the prospectus supplement. An “original issue discount security” is any debt security that provides for an amount less than the principal amount to be due and payable upon the declaration of acceleration of the maturity under the terms of the applicable indenture. The prospectus supplement relating to any original issue discount securities will describe the particular provisions relating to acceleration of the maturity upon the occurrence of an event of default. In addition, we will describe United States federal income tax or other considerations applicable to any debt securities that are denominated in a currency or unit other than United States dollars in the prospectus supplement.

Conversion and Exchange Rights

The applicable prospectus supplement will describe, if applicable, the terms on which you may convert debt securities into or exchange them for common stock or other securities or property. The conversion or exchange may be mandatory or may be at your option. The prospectus supplement will describe how the number of shares of common stock or other securities or property to be received upon conversion or exchange would be calculated.

Subordination of Subordinated Debt Securities

Unless the prospectus supplement indicates otherwise, the following provisions will apply to the subordinated debt securities. The indebtedness underlying the subordinated debt securities will be payable only if all payments due under our senior indebtedness, including any outstanding senior debt securities, have been made. If we distribute our assets to creditors upon any dissolution, winding-up, liquidation or reorganization or in bankruptcy, insolvency, receivership or similar proceedings, we must first pay all amounts due or to become due on all senior indebtedness before we pay the principal of, or any premium or interest on, the subordinated debt securities. In the event the subordinated debt securities are accelerated because of an event of default, we may not make any payment on the subordinated debt securities until we have paid all senior indebtedness or the acceleration is rescinded. If the payment of subordinated debt securities accelerates because of an event of default, we must promptly notify holders of senior indebtedness of the acceleration.

Unless otherwise indicated in a prospectus supplement, we may not make any payment on the subordinated debt securities if a default in the payment of the principal of, premium, if any, interest or other obligations, including a default under any repurchase or redemption obligation, in respect of senior indebtedness occurs and continues beyond any applicable grace period. We may not make any payment on the subordinated debt securities if any other default occurs and continues with respect to senior indebtedness that permits holders of the senior indebtedness to accelerate its maturity and the trustee receives a notice of such default from us, a holder of such senior indebtedness or other person permitted to give such notice. We may not resume payments on the subordinated debt securities until the defaults are cured or certain periods pass.

If we experience a bankruptcy, dissolution or reorganization, holders of senior indebtedness may receive more, ratably, and holders of subordinated debt securities may receive less, ratably, than our other creditors.

The indentures in the forms initially filed as exhibits to the registration statement of which this prospectus is a part do not limit the amount of indebtedness which we may incur, including senior indebtedness or subordinated indebtedness, and do not limit us from issuing any other debt, including secured debt or unsecured debt.

Form, Exchange and Transfer

We will issue debt securities only in fully registered form, without coupons, and, unless otherwise specified in the prospectus supplement, only in denominations of \$1,000 and any integral multiple thereof. The indentures provide that we may issue debt securities of a series in temporary or permanent global form and as book-entry securities that will be deposited with, or on behalf of, The Depository Trust Company, or DTC, or another depository named by us and identified in a prospectus supplement with respect to that series. We currently anticipate that the debt securities of each series offered and sold pursuant to this prospectus will be issued as global debt securities as described under “Global Securities” and will trade in book-entry form only.

At the option of the holder, subject to the terms of the indentures and the limitations applicable to global securities described in the applicable prospectus supplement, the holder of the debt securities of any series can exchange the debt securities for other debt securities of the same series, in any authorized denomination and of like tenor and aggregate principal amount.

Subject to the terms of the indentures and the limitations applicable to global securities set forth in the applicable prospectus supplement, holders of the debt securities may present the debt securities for exchange or for registration of transfer, duly endorsed or with the form of transfer endorsed thereon duly executed if so required by us or the security registrar, at the office of the security registrar or at the office of any transfer agent designated by us for this purpose. Unless otherwise provided in the debt securities that the holder presents for transfer or exchange, we will make no service charge for any registration of transfer or exchange, but we may require payment of any taxes or other governmental charges.

We will name in the applicable prospectus supplement the security registrar, and any transfer agent in addition to the security registrar, that we initially designate for any debt securities. We may at any time designate additional transfer agents or rescind the designation of any transfer agent or approve a change in the office through which any transfer agent acts, except that we will be required to maintain a transfer agent in each place of payment for the debt securities of each series.

If we elect to redeem the debt securities of any series, we will not be required to:

- issue, register the transfer or exchange of any debt securities of any series being redeemed in part during a period beginning at the opening of business 15 days before the day of mailing of a notice of redemption of any debt securities that may be selected for redemption and ending at the close of business on the day of the mailing; or
- register the transfer of or exchange any debt securities so selected for redemption, in whole or in part, except the unredeemed portion of any debt securities we are redeeming in part.

Consolidation, Merger and Sale of Assets

Unless otherwise specified in the prospectus supplement, we may not consolidate with or merge into, or sell, convey, transfer, lease or otherwise dispose of all or substantially all of our properties and assets to, any person, and shall not permit any other person to consolidate with or merge into us, unless:

- either: (i) we are the surviving corporation or (ii) the person formed by or surviving any consolidation, amalgamation or merger or resulting from such conversion (if other than Alto Ingredients) or to which such sale, assignment, transfer, conveyance or other disposition has been made, is a corporation, limited liability company or limited partnership organized and validly existing under the laws of the United States, any state of the United States or the District of Columbia and assumes our obligations under the debt securities and under the indentures pursuant to agreements reasonably satisfactory to the indenture trustee;
- immediately before and after giving pro forma effect to such transaction, no event of default, and no event which, after notice or lapse of time or both, would become an event of default, has occurred and is continuing; and

- several other conditions, including any additional conditions with respect to any particular debt securities specified in the applicable prospectus supplement, are met.

The terms of any securities that we may offer pursuant to this prospectus may limit our ability to merge or consolidate or otherwise sell, convey, transfer or otherwise dispose of all or substantially all of our assets, which terms would be set forth in the applicable prospectus supplement and supplemental indenture.

Events of Default

Unless otherwise specified in the applicable prospectus supplement, it is anticipated that each of the following will constitute an event of default under the applicable indenture with respect to debt securities of any series:

- failure to pay principal of or any premium on any debt security of that series when due, whether or not, in the case of subordinated debt securities, such payment is prohibited by the subordination provisions of the subordinated indenture;
- failure to pay any interest on any debt securities of that series when due, continued for 30 days, whether or not, in the case of subordinated debt securities, such payment is prohibited by the subordination provisions of the subordinated indenture;
- failure to deposit any sinking fund payment, when due, in respect of any debt security of that series, whether or not, in the case of subordinated debt securities, such deposit is prohibited by the subordination provisions of the subordinated indenture;
- failure to perform or comply with the provisions described under “—Consolidation, Merger and Sale of Assets”;
- failure to perform any of our other covenants in such indenture (other than a covenant included in such indenture solely for the benefit of a series other than that series), continued for 60 days after written notice has been given to us by the applicable indenture trustee, or the holders of at least 25% in principal amount of the outstanding debt securities of that series, as provided in such indenture; and
- certain events of bankruptcy, insolvency or reorganization affecting us or any significant subsidiary.

If an event of default (other than an event of default with respect to Alto Ingredients described in the last item listed above) with respect to the debt securities of any series at the time outstanding occurs and is continuing, either the applicable trustee or the holders of at least 25% in principal amount of the outstanding debt securities of that series by notice as provided in the applicable indenture may declare the principal amount of the debt securities of that series (or, in the case of any debt security that is an original issue discount debt security, such portion of the principal amount of such debt security as may be specified in the terms of such debt security) to be due and payable immediately, together with any accrued and unpaid interest thereon. If an event of default with respect to Alto Ingredients described in the last item listed above with respect to the debt securities of any series at the time outstanding occurs, the principal amount of all the debt securities of that series (or, in the case of any such original issue discount security, such specified amount) will automatically, and without any action by the applicable trustee or any holder, become immediately due and payable, together with any accrued and unpaid interest thereon. After any such acceleration, but before a judgment or decree based on acceleration, the holders of a majority in principal amount of the outstanding debt securities of that series may, under certain circumstances, rescind and annul such acceleration if all events of default, other than the non-payment of accelerated principal (or other specified amount), have been cured or waived as provided in the applicable Indenture. For information as to waiver of defaults, see “—Modification and Waiver” below.

Subject to the provisions in the indentures relating to the duties of the trustees in case an event of default has occurred and is continuing, each trustee will be under no obligation to exercise any of its rights or powers under the applicable indenture at the request or direction of any of the holders, unless such holders have offered to such trustee reasonable security or indemnity. Subject to such provisions for the indemnification of the trustees, the holders of a majority in principal amount of the outstanding debt securities of any series will have the right to direct the time, method and place of conducting any proceeding for any remedy available to the trustee or exercising any trust or power conferred on the trustee with respect to the debt securities of that series.

No holder of a debt security of any series will have any right to institute any proceeding with respect to the applicable indenture, or for the appointment of a receiver or a trustee, or for any other remedy thereunder, unless:

- such holder has previously given to the trustee under the applicable indenture written notice of a continuing event of default with respect to the debt securities of that series;

- the holders of not less than 25% in principal amount of the outstanding debt securities of that series have made written request, and such holder or holders have offered reasonable indemnity, to the trustee to institute such proceeding as trustee; and
- the trustee has failed to institute such proceeding, and has not received from the holders of a majority in principal amount of the outstanding debt securities of that series a direction inconsistent with such request, within 60 days after such notice, request and offer.

However, such limitations do not apply to a suit instituted by a holder of a debt security for the enforcement of payment of the principal of or any premium or interest on such debt security on or after the applicable due date specified in such debt security.

We will be required to furnish to each trustee annually, within 150 days after the end of each fiscal year, a certificate by certain of our officers as to whether or not we, to their knowledge, are in default in the performance or observance of any of the terms, provisions and conditions of the applicable indenture and, if so, specifying all such known defaults.

Modification and Waiver

Unless otherwise specified in the prospectus supplement, modifications and amendments of an indenture may be made by us and the applicable trustee with the consent of the holders of a majority in principal amount of the outstanding debt securities of each series affected by such modification or amendment. However, no such modification or amendment may, without the consent of the holder of each outstanding debt security affected thereby:

- change the stated maturity of the principal of, or time for payment of any installment of principal of or interest on, any debt security;

- reduce the principal amount of, or any premium or the rate of interest on, any debt security;
- reduce the amount of principal of an original issue discount security or any other debt security payable upon acceleration of the maturity thereof;
- change the place or the coin or currency of payment of principal of, or any premium or interest on, any debt security;
- impair the right to institute suit for the enforcement of any payment due on any debt security;
- modify the subordination provisions in the case of subordinated debt securities;
- reduce the percentage in principal amount of outstanding debt securities of any series, the consent of whose holders is required for modification or amendment of the indenture;
- reduce the percentage in principal amount of outstanding debt securities of any series necessary for waiver of compliance with certain provisions of the indenture or for waiver of certain defaults; or
- modify such provisions with respect to modification, amendment or waiver, except to increase any such percentage or to provide that certain other provisions of the indenture cannot be modified or waived without the consent of the holder of each outstanding debt security affected thereby.

The holders of a majority in principal amount of the outstanding debt securities of any series may waive compliance by us with certain restrictive provisions of the applicable indenture. The holders of a majority in principal amount of the outstanding debt securities of any series may waive any past default under the applicable indenture, except a default in the payment of principal, premium or interest and certain covenants and provisions of the indenture which cannot be amended without the consent of the holder of each outstanding debt security of such series.

Each of the indentures provides that in determining whether the holders of the requisite principal amount of the outstanding debt securities have given or taken any direction, notice, consent, waiver or other action under such indenture as of any date:

- the principal amount of an original issue discount security that will be deemed to be outstanding will be the amount of the principal that would be due and payable as of such date upon acceleration of maturity to such date;
- the principal amount of a debt security denominated in one or more foreign currencies or currency units that will be deemed to be outstanding will be the United States-dollar equivalent, determined as of such date in the manner prescribed for such debt security, of the principal amount of such debt security (or, in the case of an original issue discount security the United States dollar equivalent on the date of original issuance of such security of the amount determined as provided immediately above); and
- certain debt securities, including those owned by us or any of our other affiliates, will not be deemed to be outstanding.

Except in certain limited circumstances, we will be entitled to set any day as a record date for the purpose of determining the holders of outstanding debt securities of any series entitled to give or take any direction, notice, consent, waiver or other action under the applicable indenture, in the manner and subject to the limitations provided in the indenture. In certain limited circumstances, the trustee will be entitled to set a record date for action by holders. If a record date is set for any action to be taken by holders of a particular series, only persons who are holders of outstanding debt securities of that series on the record date may take such action.

Optional Redemption

If specified in the applicable prospectus supplement, we may elect to redeem all or part of the outstanding debt securities of a series from time to time before the maturity date of the debt securities of that series. Upon such election, we will notify the indenture trustee of the redemption date and the principal amount of debt securities of the series to be redeemed. If less than all the debt securities of the series are to be redeemed, the particular debt securities of that series to be redeemed will be selected by the depository in accordance with its procedures. The applicable prospectus supplement will specify the redemption price for the debt securities to be redeemed (or the method of calculating such price), in each case in accordance with the terms and conditions of those debt securities.

Notice of redemption will be given to each holder of the debt securities to be redeemed not less than 30 nor more than 60 days prior to the date set for such redemption. This notice will include the following information, as applicable: the redemption date; the redemption price (or the method of calculating such price); if less than all of the outstanding debt securities of such series are to be redeemed, the identification (and, in the case of partial redemption, the respective principal amounts) of the particular debt securities to be redeemed; that on the redemption date the redemption price will become due and payable upon each security to be redeemed and, if applicable, that interest thereon will cease to accrue after such date; the place or places where such debt securities are to be surrendered for payment of the redemption price; and that the redemption is for a sinking fund, if such is the case.

Prior to any redemption date, we will deposit or cause to be deposited with the indenture trustee or with a paying agent (or, if we are acting as our own paying agent with respect to the debt securities being redeemed, we will segregate and hold in trust as provided in the applicable indenture) an amount of money sufficient to pay the aggregate redemption price of, and (except if the redemption date shall be an interest payment date or the debt securities of such series provide otherwise) accrued interest on, all of the debt securities or the part thereof to be redeemed on that date. On the redemption date, the redemption price will become due and payable upon all of the debt securities to be redeemed, and interest, if any, on the debt securities to be redeemed will cease to accrue from and after that date. Upon surrender of any such debt securities for redemption, we will pay those debt securities surrendered at the redemption price together, if applicable, with accrued interest to the redemption date.

Any debt securities to be redeemed only in part must be surrendered at the office or agency established by us for such purpose, and we will execute, and the indenture trustee will authenticate and deliver to a holder without service charge, new debt securities of the same series and of like tenor, of any authorized denominations as requested by that holder, in a principal amount equal to and in exchange for the unredeemed portion of the debt securities that holder surrenders.

Satisfaction and Discharge

Each indenture will be discharged and will cease to be of further effect as to all outstanding debt securities of any series issued thereunder, when:

- either:

- o all outstanding debt securities of that series that have been authenticated (except lost, stolen or destroyed debt securities that have been replaced or paid and debt securities for whose payment money has theretofore been deposited in trust and thereafter repaid to us or discharged from such trust) have been delivered to the trustee for cancellation; or
- o all outstanding debt securities of that series that have not been delivered to the trustee for cancellation have become due and payable or will become due and payable at their stated maturity within one year or are to be called for redemption within one year under arrangements satisfactory to the trustee;

and in either case we have irrevocably deposited with the trustee as trust funds for such purpose money in an amount sufficient, without consideration of any reinvestment of interest, to pay and discharge the entire indebtedness of such debt securities not delivered to the trustee for cancellation, for principal, premium, if any, and accrued interest to the date of such deposit (in the case of debt securities that have become due and payable) or to the stated maturity or redemption date;

- we have paid or caused to be paid all other sums payable by us under the indenture with respect to the debt securities of that series; and
- we have delivered an officer's certificate and an opinion of counsel to the trustee stating that all conditions precedent to satisfaction and discharge of the indenture with respect to the debt securities of that series have been complied with.

Legal Defeasance and Covenant Defeasance

If and to the extent indicated in the applicable prospectus supplement, we may elect, at our option at any time, to have provisions of the indentures relating to defeasance and discharge of indebtedness, which we call "legal defeasance," relating to defeasance of certain restrictive covenants applied to the debt securities of any series, or to any specified part of a series, which we call "covenant defeasance."

Legal Defeasance. The indentures provide that, upon our exercise of our option (if any) to have the provisions relating to legal defeasance applied to any debt securities, we will be discharged from all our obligations, and, if such debt securities are subordinated debt securities, the provisions of the subordinated indenture relating to subordination will cease to be effective, with respect to such debt securities (except for certain obligations to convert, exchange or register the transfer of debt securities, to replace stolen, lost or mutilated debt securities, to maintain paying agencies and to hold moneys for payment in trust) upon the deposit in trust for the benefit of the holders of such debt securities of money or United States government obligations, or both, which, through the payment of principal and interest in respect thereof in accordance with their terms, will provide money in an amount sufficient to pay the principal of and any premium and interest on such debt securities on the respective stated maturities in accordance with the terms of the applicable indenture and such debt securities. Such defeasance or discharge may occur only if, among other things:

- we have delivered to the applicable trustee an opinion of counsel to the effect that we have received from, or there has been published by, the United States Internal Revenue Service a ruling, or there has been a change in tax law, in either case to the effect that holders of such debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit and legal defeasance and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit and legal defeasance were not to occur;

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- no event of default or event that with the passing of time or the giving of notice, or both, shall constitute an event of default shall have occurred and be continuing at the time of such deposit;
- such deposit and legal defeasance will not result in a breach or violation of, or constitute a default under, any agreement or instrument (other than the applicable indenture) to which we are a party or by which we are bound;
- we must deliver to the trustee an officer's certificate stating that the deposit was not made by us with the intent of preferring the holders of the debt securities over any of our other creditors or with the intent of defeating, hindering, delaying or defrauding any of our other creditors or others;
- we must deliver to the trustee an officer's certificate stating that all conditions precedent set forth in the items set forth immediately above and the item set forth immediately below, as applicable, have been complied with;
- in the case of subordinated debt securities, at the time of such deposit, no default in the payment of all or a portion of principal of (or premium, if any) or interest on any of our senior debt shall have occurred and be continuing, no event of default shall have resulted in the acceleration of any of our senior debt and no other event of default with respect to any of our senior debt shall have occurred and be continuing permitting after notice or the lapse of time, or both, the acceleration thereof; and
- we have delivered to the trustee an opinion of counsel to the effect that all conditions precedent set forth in first, third or fourth item above have been complied with.

Covenant Defeasance. The indentures provide that, upon our exercise of our option (if any) to have the covenant defeasance provisions applied to any debt securities, we may omit to comply with certain restrictive covenants (but not to conversion, if applicable), including those that may be described in the applicable prospectus supplement, the occurrence of certain events of default, which are described above in the fifth item listed under "Events of Default" above and any that may be described in the applicable prospectus supplement, will not be deemed to either be or result in an event of default and, if such debt securities are subordinated debt securities, the provisions of the subordinated indenture relating to subordination will cease to be effective, in each case with respect to such debt securities. In order to exercise such option, we must deposit, in trust for the benefit of the holders of such debt securities, money or United States government obligations, or both, which, through the payment of principal and interest in respect thereof in accordance with their terms, will provide money in an amount sufficient to pay the principal of and any premium and interest on such debt securities on the respective stated maturities in accordance with the terms of the applicable indenture and such debt securities. Such covenant defeasance may occur only if we have delivered to the applicable trustee an opinion of counsel that in effect says that holders of such debt securities will not recognize gain or loss for federal income tax purposes as a result of such deposit and covenant defeasance and will be subject to federal income tax on the same amount, in the same manner and at the same times as would have been the case if such deposit and covenant defeasance were not to occur, and the requirements set forth in the second, third, fourth, fifth, sixth and seventh items above are satisfied. If we exercise this option with respect to any debt securities and such debt securities were declared due and payable because of the occurrence of any event of default, the amount of money and United States government obligations so deposited in trust would be sufficient to pay amounts due on such debt securities at the time of their respective stated maturities but may not be sufficient to pay amounts due on such debt securities upon any acceleration resulting from such event of default. In such case, we would remain liable for such payments.

Notices

We will mail notices to holders of debt securities at the addresses that appear in the security register.

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Title

We may treat the person in whose name a debt security is registered as the absolute owner, whether or not such debt security may be overdue, for the purpose of making payment and for all other purposes.

Information Concerning the Indenture Trustee

The indenture trustee undertakes to perform only those duties as are specifically set forth in the applicable indenture. The indenture trustee must use the same degree of care as a prudent person would exercise or use in the conduct of his or her own affairs. The indenture trustee shall be under no obligation to exercise any of the rights or powers vested in it by an indenture at the request or direction of any of the applicable holders pursuant to such indenture unless such holders shall have offered to the indenture trustee security or indemnity satisfactory to the trustee against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction.

Payment and Paying Agents

Unless otherwise indicated in the applicable prospectus supplement, payment of interest on a debt security on any interest payment date will be made to the person in whose name such debt security (or one or more predecessor securities) is registered at the close of business on the regular record date for such interest.

Unless otherwise indicated in the applicable prospectus supplement, principal of and any premium and interest on the debt securities of a particular series will be payable at the office of such paying agent or paying agents as we may designate for such purpose from time to time, except that at our option payment of any interest on debt securities in certificated loan may be made by check mailed to the address of the person entitled thereto as such address appears in the security register. Unless otherwise indicated in the applicable prospectus supplement, the corporate trust office of the trustee under the senior indenture in The City of New York will be designated as sole paying agent for payments with respect to senior debt securities of each series, and the corporate trust office of the trustee under the subordinated indenture in The City of New York will be designated as the sole paying agent for payment with respect to subordinated debt securities of each series. Any other paying agents initially designated by us for the debt securities of a particular series will be named in the applicable prospectus supplement. We may at any time designate additional paying agents or rescind the designation of any paying agent or approve a change in the office through which any paying agent acts, except that we will be required to maintain a paying agent in each place of payment for the debt securities of a particular series.

All money paid by us to a paying agent for the payment of the principal of or any premium or interest on any debt security which remain unclaimed at the end of two years after such principal, premium or interest has become due and payable will be repaid to us, and the holder of such debt security thereafter may look only to us for payment.

Governing Law

The indentures and the debt securities will be governed by and construed in accordance with the laws of the state of New York.

DESCRIPTION OF CAPITAL STOCK

Authorized and Outstanding Capital Stock

Our authorized capital stock consists of 300,000,000 shares of common stock, \$0.001 par value per share, 3,553,000 shares of non-voting common stock, \$0.001 par value per share, and 10,000,000 shares of preferred stock, \$0.001 par value per share, of which 1,684,375 shares are designated as Series A Cumulative Redeemable Convertible Preferred Stock, or Series A Preferred Stock, and 1,580,790 shares are designated as Series B Cumulative Convertible Preferred Stock, or Series B Preferred Stock. As of June 22, 2023, there were 76,082,748 shares of common stock, 896 shares of non-voting common stock, no shares of Series A Preferred Stock and 926,942 shares of Series B Preferred Stock issued and outstanding. The following description of our capital stock does not purport to be complete and should be reviewed in conjunction with our certificate of incorporation, including our Certificate of Designations, Powers, Preferences and Rights of the Series A Preferred Stock, or Series A Certificate of Designations, our Certificate of Designations, Powers, Preferences and Rights of the Series B Preferred Stock, or Series B Certificate of Designations, and our bylaws. See “Where You Can Find Additional Information.”

Common Stock

All outstanding shares of our common stock are fully paid and nonassessable. The following summarizes the rights of holders of our common stock:

- a holder of common stock is entitled to one vote per share on all matters to be voted upon generally by the stockholders;
- subject to preferences that may apply to shares of preferred stock outstanding, the holders of common stock are entitled to receive lawful dividends as may be declared by our Board of Directors, or the Board;
- upon our liquidation, dissolution or winding up, the holders of shares of common stock are entitled to receive a pro rata portion of all our assets remaining for distribution after satisfaction of all our liabilities and the payment of any liquidation preference of any outstanding preferred stock;
- there are no redemption or sinking fund provisions applicable to our common stock; and
- there are no preemptive or conversion rights applicable to our common stock.

Non-Voting Common Stock

The rights and preferences of shares of our non-voting common are substantially the same in all respects to the rights and preferences of shares of our common stock, except that (i) the holders of shares of non-voting common stock are not be entitled to vote, (ii) shares of non-voting common stock are convertible into shares of common stock, and (iii) shares of non-voting common stock are not listed on any stock exchange, including The Nasdaq Capital Market.

The following summarizes the rights of holders of our non-voting common stock:

- a holder of non-voting common stock is not entitled to vote on any matter submitted to a vote of the stockholders, however such holders are entitled to prior notice of, and to attend and observe, all meetings of the stockholders;

- subject to preferences that may apply to shares of preferred stock issued and outstanding, the holders of non-voting common stock are entitled to receive lawful dividends as may be declared by the Board on parity in all respects with the holders of common stock, provided that if the holders of common stock become entitled to receive a dividend or distribution of shares of common stock, holders of non-voting common stock shall receive, in lieu of the shares of common stock, an equal number of shares of non-voting common stock;

- upon liquidation, dissolution or winding up of Alto Ingredients, the holders of shares of common stock and non-voting common stock will be entitled to receive a pro rata portion of all of our assets remaining for distribution after satisfaction of all our liabilities and the payment of any liquidation preference of any outstanding preferred stock;
- there are no redemption or sinking fund provisions applicable to our non-voting common stock; and
- there are no preemptive rights applicable to our non-voting common stock.

Conversion

Each share of non-voting common stock is convertible at the option of the holder into one share of our common stock at any time. The conversion price is subject to customary adjustment for stock splits, stock combinations, stock dividends, mergers, consolidations, reorganizations, share exchanges, reclassifications, distributions of assets and issuances of convertible securities, and the like.

No shares of non-voting common stock may be converted into common stock if the holder of such shares or any of its affiliates would, after such conversion, beneficially own in excess of 9.99% of our outstanding shares of common stock (which we refer to in this prospectus as the “Blocker”). The Blocker applicable to the conversion of shares of non-voting common stock may be raised or lowered at the option of the holder to any percentage not in excess of 9.99%, except that any increase will only be effective upon 61-days’ prior notice to us.

When shares of non-voting common stock cease to be held by the initial holder or an affiliate of an initial holder of such shares, such shares shall automatically convert into one share of our common stock.

Preferred Stock

Our Board is authorized to issue from time to time, in one or more designated series, any or all of our authorized but unissued shares of preferred stock with dividend, redemption, conversion, exchange, voting and other provisions as may be provided in that particular series. The issuance need not be approved by our common stockholders and need only be approved by holders, if any, of our Series A Preferred Stock and Series B Preferred Stock if, as described below, the shares of preferred stock to be issued have preferences that are senior to or on parity with those of our Series A Preferred Stock and Series B Preferred Stock.

The rights of the holders of our common stock, Series A Preferred Stock and Series B Preferred Stock will be subject to, and may be adversely affected by, the rights of the holders of any preferred stock that may be issued in the future. Issuance of a new series of preferred stock, while providing desirable flexibility in connection with possible acquisitions and other corporate purposes, could have the effect of entrenching our Board and making it more difficult for a third-party to acquire, or discourage a third-party from acquiring, a majority of our outstanding voting stock. The following is a summary of the terms of the Series A Preferred Stock and the Series B Preferred Stock.

Series B Preferred Stock

As of June 22, 2023, 926,942 shares of Series B Preferred Stock were issued and outstanding and an aggregate of 1,419,210 shares of Series B Preferred Stock had been converted into shares of our common stock. The converted shares of Series B Preferred Stock have been returned to undesignated preferred stock. A balance of 653,848 shares of Series B Preferred Stock remain authorized for issuance.

Rank and Liquidation Preference

Shares of Series B Preferred Stock rank prior to our common stock as to distribution of assets upon liquidation events, which include a liquidation, dissolution or winding up of Alto Ingredients, whether voluntary or involuntary. The liquidation preference of each share of Series B Preferred Stock is equal to \$19.50, or the Series B Issue Price, plus any accrued but unpaid dividends on the Series B Preferred Stock. If assets remain after the amounts are distributed to the holders of Series B Preferred Stock, the assets shall be distributed pro rata, on an as-converted to common stock basis, to the holders of our common stock and Series B Preferred Stock. The written consent of a majority of the outstanding shares of Series B Preferred Stock is required before we can authorize the issuance of any class or series of capital stock that ranks senior to or on parity with shares of Series B Preferred Stock.

Dividend Rights

As long as shares of Series B Preferred Stock remain outstanding, each holder of shares of Series B Preferred Stock are entitled to receive, and shall be paid quarterly in arrears, in cash out of funds legally available therefor, cumulative dividends, in an amount equal to 7.0% of the Series B Issue Price per share per annum with respect to each share of Series B Preferred Stock. The dividends may, at our option, be paid in shares of Series B Preferred Stock valued at the Series B Issue Price. In the event we declare, order, pay or make a dividend or other distribution on our common stock, other than a dividend or distribution made in common stock, the holders of the Series B Preferred Stock shall be entitled to receive with respect to each share of Series B Preferred Stock held, any dividend or distribution that would be received by a holder of the number of shares of our common stock into which the Series B Preferred Stock is convertible on the record date for the dividend or distribution.

The Series B Preferred Stock ranks *pari passu* with respect to dividends and liquidation rights with the Series A Preferred Stock and *pari passu* with respect to any class or series of capital stock specifically ranking on parity with the Series B Preferred Stock.

Optional Conversion Rights

Each share of Series B Preferred Stock is convertible at the option of the holder into shares of our common stock at any time. Each share of Series B Preferred Stock is convertible into the number of shares of common stock as calculated by multiplying the number of shares of Series B Preferred Stock to be converted by the Series B Issue Price, and dividing the result thereof by the conversion price. The conversion price was initially \$682.50 per share of Series B Preferred Stock, subject to adjustment; therefore, each share of Series B Preferred Stock was initially convertible into 0.03 shares of common stock, which number is equal to the quotient of the Series B Issue Price of \$19.50

divided by the initial conversion price of \$682.50 per share of Series B Preferred Stock. Accrued and unpaid dividends are to be paid in cash upon any conversion.

Mandatory Conversion Rights

In the event of a Transaction which will result in an internal rate of return to holders of Series B Preferred Stock of 25% or more, each share of Series B Preferred Stock shall, concurrently with the closing of the Transaction, be converted into shares of common stock. A "Transaction" is defined as a sale, lease, conveyance or disposition of all or substantially all of our capital stock or assets or a merger, consolidation, share exchange, reorganization or other transaction or series of related transactions (whether involving us or a subsidiary) in which the stockholders immediately prior to the transaction do not retain a majority of the voting power in the surviving entity. Any mandatory conversion will be made into the number of shares of common stock determined on the same basis as the optional conversion rights above. Accrued and unpaid dividends are to be paid in cash upon any conversion.

No shares of Series B Preferred Stock will be converted into common stock on a mandatory basis unless at the time of the proposed conversion we have on file with the SEC an effective registration statement with respect to the shares of common stock issued or issuable to the holders on conversion of the Series B Preferred Stock then issued or issuable to the holders and the shares of common stock are eligible for trading on The Nasdaq Stock Market (or approved by and listed on a stock exchange approved by the holders of 66 2/3% of the then outstanding shares of Series B Preferred Stock).

Conversion Price Adjustments

The conversion price is subject to customary adjustment for stock splits, stock combinations, stock dividends, mergers, consolidations, reorganizations, share exchanges, reclassifications, distributions of assets and issuances of convertible securities, and the like. The conversion price is also subject to downward adjustments if we issue shares of common stock or securities convertible into or exercisable for shares of common stock, other than specified excluded securities, at per share prices less than the then effective conversion price. In this event, the conversion price shall be reduced to the price determined by dividing (i) an amount equal to the sum of (a) the number of shares of common stock outstanding immediately prior to the issue or sale multiplied by the then existing conversion price, and (b) the consideration, if any, received by us upon such issue or sale, by (ii) the total number of shares of common stock outstanding immediately after the issue or sale. For purposes of determining the number of shares of common stock outstanding as provided in clauses (i) and (ii) above, the number of shares of common stock issuable upon conversion of all outstanding shares of Series B Preferred Stock, and the exercise of all outstanding securities convertible into or exercisable for shares of common stock, will be deemed to be outstanding.

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The conversion price will not be adjusted in the case of the issuance or sale of the following: (i) securities issued to our employees, officers or directors or options to purchase common stock granted by us to our employees, officers or directors under any option plan, agreement or other arrangement duly adopted by us and the grant of which is approved by the compensation committee of our Board; (ii) the Series B Preferred Stock and any common stock issued upon conversion of the Series B Preferred Stock; (iii) securities issued on the conversion of any convertible securities, in each case, outstanding on the date of the filing of the Series B Certificate of Designations; and (iv) securities issued in connection with a stock split, stock dividend, combination, reorganization, recapitalization or other similar event for which adjustment is made in accordance with the foregoing.

Voting Rights and Protective Provisions

The Series B Preferred Stock votes together with all other classes and series of our voting stock as a single class on all actions to be taken by our stockholders. Each share of Series B Preferred Stock entitles the holder thereof to the number of votes equal to the number of shares of common stock into which each share of Series B Preferred Stock is convertible on all matters to be voted on by our stockholders, however, the number of votes for each share of Series B Preferred Stock may not exceed the number of shares of common stock into which each share of Series B Preferred Stock would be convertible if the applicable conversion price were \$682.50 (subject to appropriate adjustment for stock splits, stock dividends, combinations and other similar recapitalizations affecting the shares).

We are not permitted, without first obtaining the written consent of the holders of at least a majority of the then outstanding shares of Series B Preferred Stock voting as a separate class, to:

- increase or decrease the total number of authorized shares of Series B Preferred Stock or the authorized shares of our common stock reserved for issuance upon conversion of the Series B Preferred Stock (except as otherwise required by our certificate of incorporation or the Series B Certificate of Designations);
- increase or decrease the number of authorized shares of preferred stock or common stock (except as otherwise required by our certificate of incorporation or the Series B Certificate of Designations);
- alter, amend, repeal, substitute or waive any provision of our certificate of incorporation or our bylaws, so as to affect adversely the voting powers, preferences or other rights, including the liquidation preferences, dividend rights, conversion rights, redemption rights or any reduction in the stated value of the Series B Preferred Stock, whether by merger, consolidation or otherwise;
- authorize, create, issue or sell any securities senior to or on parity with the Series B Preferred Stock or securities that are convertible into securities senior to or on parity the Series B Preferred Stock with respect to voting, dividend, liquidation or redemption rights, including subordinated debt;
- authorize, create, issue or sell any securities junior to the Series B Preferred Stock other than common stock or securities that are convertible into securities junior to Series B Preferred Stock other than common stock with respect to voting, dividend, liquidation or redemption rights, including subordinated debt;
- authorize, create, issue or sell any additional shares of Series B Preferred Stock other than the Series B Preferred Stock initially authorized, created, issued and sold, Series B Preferred Stock issued as payment of dividends and Series B Preferred Stock issued in replacement or exchange therefore;
- engage in a Transaction that would result in an internal rate of return to holders of Series B Preferred Stock of less than 25%;

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- declare or pay any dividends or distributions on our capital stock in a cumulative amount in excess of the dividends and distributions paid on the Series B Preferred Stock in accordance with the Series B Certificate of Designations;
- authorize or effect the voluntary liquidation, dissolution, recapitalization, reorganization or winding up of our business; or
- purchase, redeem or otherwise acquire any of our capital stock other than Series B Preferred Stock, or any warrants or other rights to subscribe for or to purchase, or any options for the purchase of, our capital stock or securities convertible into or exchangeable for our capital stock.

Reservation of Shares

We initially were required to reserve 3,000,000 shares of common stock for issuance upon conversion of shares of Series B Preferred Stock and are required to maintain a sufficient number of reserved shares of common stock to allow for the conversion of all shares of Series B Preferred Stock.

Series A Preferred Stock

As of June 22, 2023, no shares of Series A Preferred Stock were issued and outstanding and an aggregate of 5,315,625 shares of Series A Preferred Stock had been converted into shares of our common stock and returned to undesignated preferred stock. A balance of 1,684,375 shares of Series A Preferred Stock remain authorized for issuance. The rights and preferences of the Series A Preferred Stock are substantially the same as the Series B Preferred Stock, except as follows:

- the Series A Issue Price, on which the Series A Preferred Stock liquidation preference is based, is \$16.00 per share;
- dividends accrue and are payable at a rate per annum of 5.0% of the Series A Issue Price per share;
- each share of Series A Preferred Stock is convertible at a rate equal to the Series A Issue Price divided by an initial conversion price of \$840.00 per share;
- holders of the Series A Preferred Stock have a number of votes equal to the number of shares of common stock into which each share of Series A Preferred Stock is convertible on all matters to be voted on by our stockholders, voting together as a single class; provided, however, that the number of votes for each share of Series A Preferred Stock shall not exceed the number of shares of common stock into which each share of Series A Preferred Stock would be convertible if the applicable conversion price were \$943.95 (subject to appropriate adjustment for stock splits, stock dividends, combinations and other similar recapitalizations affecting the shares); and
- we are not permitted, without first obtaining the written consent of the holders of at least a majority of the then outstanding shares of Series A Preferred Stock voting as a separate class, to:
 - o change the number of members of our Board to be more than nine members or less than seven members;
 - o effect any material change in our industry focus or that of our subsidiaries, considered on a consolidated basis;
 - o authorize or engage in, or permit any subsidiary to authorize or engage in, any transaction or series of transactions with one of our or our subsidiaries' current or former officers, directors or members with value in excess of \$100,000, excluding compensation or the grant of options approved by our Board; or
 - o authorize or engage in, or permit any subsidiary to authorize or engage in, any transaction with any entity or person that is affiliated with any of our or our subsidiaries' current or former directors, officers or members, excluding any director nominated by the initial holder of the Series B Preferred Stock.

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Preemptive Rights

Holders of our Series A Preferred Stock have preemptive rights to purchase a pro rata portion of all capital stock or securities convertible into capital stock that we issue, sell or exchange, or agree to issue, sell or exchange, or reserve or set aside for issuance, sale or exchange. We must deliver each holder of our Series A Preferred Stock a written notice of any proposed or intended issuance, sale or exchange of capital stock or securities convertible into capital stock which must include a description of the securities and the price and other terms upon which they are to be issued, sold or exchanged together with the identity of the persons or entities (if known) to which or with which the securities are to be issued, sold or exchanged, and an offer to issue and sell to or exchange with the holder of the Series A Preferred Stock the holder's pro rata portion of the securities, and any additional amount of the securities should the other holders of Series A Preferred Stock subscribe for less than the full amounts for which they are entitled to subscribe. In the case of a public offering of our common stock for a purchase price of at least \$12.00 per share and a total gross offering price of at least \$50 million, the preemptive rights of the holders of the Series A Preferred Stock shall be limited to 50% of the securities. Holders of our Series A Preferred Stock have a 30 day period during which to accept the offer. We will have 90 days from the expiration of this 30 day period to issue, sell or exchange all or any part of the securities as to which the offer has not been accepted by the holders of the Series A Preferred Stock, but only as to the offerees or purchasers described in the offer and only upon the terms and conditions that are not more favorable, in the aggregate, to the offerees or purchasers or less favorable to us than those contained in the offer.

The preemptive rights of the holders of the Series A Preferred Stock do not apply to any of the following securities: (i) securities issued to our employees, officers or directors or options to purchase common stock granted by us to our employees, officers or directors under any option plan, agreement or other arrangement duly adopted by us and the grant of which is approved by the compensation committee of our Board; (ii) the Series A Preferred Stock and any common stock issued upon conversion of the Series A Preferred Stock; (iii) securities issued on the conversion of any convertible securities, in each case, outstanding on the date of the filing of the Series A Certificate of Designations; (iv) securities issued in connection with a stock split, stock dividend, combination, reorganization, recapitalization or other similar event for which adjustment is made in accordance with the Series A Certificate of Designations; and (v) the issuance of our securities issued for consideration other than cash as a result of a merger, consolidation, acquisition or similar business combination by us approved by our Board.

Anti-Takeover Effects of Delaware Law and Our Certificate of Incorporation and Bylaws

A number of provisions of Delaware law, our certificate of incorporation and our bylaws contain provisions that could have the effect of delaying, deferring and discouraging another party from acquiring control of Alto Ingredients. These provisions, which are summarized below, are expected to discourage coercive takeover practices and inadequate takeover bids. These provisions are also designed to encourage persons seeking to acquire control of Alto Ingredients to first negotiate with our Board. We believe that the benefits of increased protection of our potential ability to negotiate with an unfriendly or unsolicited acquiror outweigh the disadvantages of discouraging a proposal to acquire Alto Ingredients because negotiation of these proposals could result in an improvement of their terms. However, the existence of these provisions also could limit the price that investors might be willing to pay for our securities.

Undesignated Preferred Stock

The ability to authorize undesignated preferred stock makes it possible for our Board to issue preferred stock with voting or other rights or preferences that could impede the success of any attempt to acquire us. These and other provisions may have the effect of deferring hostile takeovers or delaying changes in control or management of Alto Ingredients.

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Our bylaws provide that a stockholder seeking to bring business before an annual meeting of stockholders, or to nominate candidates for election as directors, must provide timely notice of such stockholder's intention in writing. To be timely, a stockholder nominating individuals for election to the Board or proposing business must provide advanced notice to Alto Ingredients (a) not later than the close of business on the 90th day, nor earlier than the close of business on the 120th day in advance of the anniversary of the previous year's annual meeting if such meeting is to be held on a day which is not more than thirty (30) days in advance of the anniversary of the previous year's annual meeting or not later than seventy (70) days after the anniversary of the previous year's annual meeting, and (b) with respect to any other annual meeting of stockholders, the close of business on the 10th day following the date of public disclosure of the date of such meeting. In the event we call a special meeting of stockholders for the purpose of electing one or more directors to the Board, any stockholder entitled to vote in such election of directors may nominate a person or persons (as the case may be) for election to such position(s) as specified in our notice of meeting, if the stockholder's notice is delivered to us not later than the close of business on the 90th day prior to such special meeting and not earlier than the close of business on the later of the 120th day prior to such special meeting or the 10th day following the date of public disclosure of the date of the special meeting and of the nominees proposed by the Board to be elected at such meeting. Stockholders who intend to solicit proxies in support of director nominees other than the nominees of Alto Ingredients must comply with the additional requirements of Rule 14a-19(b) of the Exchange Act.

Delaware Anti-Takeover Statute

We are subject to the provisions of Section 203 of the Delaware General Corporation Law (sometimes referred to as Section 203) regulating corporate takeovers. In general, Section 203 prohibits a publicly-held Delaware corporation from engaging, under specified circumstances, in a business combination with an interested stockholder for a period of three years following the date the person became an interested stockholder unless:

- prior to the date of the transaction, the board of directors of the corporation approved either the business combination or the transaction which resulted in the stockholder becoming an interested stockholder;
- upon consummation of the transaction that resulted in the stockholder becoming an interested stockholder, the stockholder owned at least 85% of the voting stock of the corporation outstanding at the time the transaction commenced, excluding for purposes of determining the number of shares of voting stock outstanding (but not the outstanding voting stock owned by the stockholder) (1) shares owned by persons who are directors and also officers and (2) shares owned by employee stock plans in which employee participants do not have the right to determine confidentially whether shares held subject to the plan will be tendered in a tender or exchange offer; or
- on or subsequent to the date of the transaction, the business combination is approved by the board and authorized at an annual or special meeting of stockholders, and not by written consent, by the affirmative vote of at least 66-2/3% of the outstanding voting stock that is not owned by the interested stockholder.

Generally, a business combination includes a merger, asset or stock sale, or other transaction resulting in a financial benefit to the interested stockholder. An interested stockholder is a person who, together with affiliates and associates, owns or, within three years prior to the determination of interested stockholder status, did own 15% or more of a corporation's outstanding voting securities. We expect the existence of this provision to have an anti-takeover effect with respect to transactions the Board does not approve in advance. We also anticipate that Section 203 may also discourage attempts that might result in a premium over the market price for the shares of our common stock held by stockholders.

The provisions of Delaware law, our certificate of incorporation and our bylaws could have the effect of discouraging others from attempting hostile takeovers and, as a consequence, they may also inhibit temporary fluctuations in the market price of our common stock that often result from actual or rumored hostile takeover attempts. These provisions may also have the effect of preventing changes in our management. It is possible that these provisions could make it more difficult to accomplish transactions that stockholders may otherwise deem to be in their best interests.

Choice of Forum

Our bylaws provide that, unless we consent in writing to the selection of an alternative forum, the Court of Chancery shall be the sole and exclusive forum for (a) any derivative action or proceeding brought on behalf of us, (b) any action asserting a claim of breach of a fiduciary duty owed by any director, officer or other employee of us to us or our stockholders, (c) any action asserting a claim arising pursuant to any provision of the Delaware General Corporation Law, or (d) any action asserting a claim governed by the internal affairs doctrine. For the avoidance of doubt, the exclusive forum provision described above does not apply to any claims arising under the Securities Act or Exchange Act. Section 27 of the Exchange Act creates exclusive federal jurisdiction over all suits brought to enforce any duty or liability created by the Exchange Act or the rules and regulations thereunder, and Section 22 of the Securities Act creates concurrent jurisdiction for federal and state courts over all suits brought to enforce any duty or liability created by the Securities Act or the rules and regulations thereunder.

DESCRIPTION OF PREFERRED STOCK

We may issue up to 6,734,835 shares of preferred stock, par value \$0.001 per share, from time to time in one or more classes or series, with the exact terms of each series or class established by our Board. Without seeking stockholder approval, our Board may issue preferred stock with voting and other rights that are greater than the rights of our common stock and could adversely affect the voting power of the holders of our common stock.

The rights, preferences, privileges and restrictions of the preferred stock of each series or class will be determined by our Board and set forth in a certificate of designations relating to such series or class that will amend our Certificate of Incorporation. We will include each certificate of designations as an exhibit to the registration statement that includes this prospectus, or as an exhibit to a filing with the SEC that is incorporated by reference into this prospectus. The description of preferred stock in any prospectus supplement will not necessarily describe all of the terms of the preferred stock in detail. You should read the applicable certificate of designations for a complete description of all of the terms.

This section describes the general terms of the preferred stock that we may offer using this prospectus. Further terms of the preferred stock will be stated in the applicable prospectus supplement. The following description and any description of the preferred stock in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the certificate of designations.

Terms

You should refer to the applicable prospectus supplement relating to the offering of any series of preferred stock for specific terms of the shares, including the following terms:

- the maximum number of shares in the series or class and the distinctive designation;
- number of shares offered and initial offering price;

- the terms on which dividends, if any, will be paid;
- the terms of any preemptive rights;
- the terms on which the shares may be redeemed, if at all;
- the liquidation preference, if any;
- the terms of any retirement or sinking fund for the repurchase or redemption of the shares of the series;
- the terms and conditions, if any, on which the shares of the series shall be convertible into, or exchangeable for, shares of any other class or classes of capital stock, including the conversion price, rate or other manner of calculation, conversion period and anti-dilution provisions, if applicable;
- terms and conditions upon which shares will be exchangeable into debt securities or any other securities, including the exchange price, rate or other manner of calculation, exchange period and any anti-dilution provisions, if applicable;
- the relative ranking and preference as to dividend rights and rights upon liquidation, dissolution or the winding up of our affairs, including liquidation preference amount;
- any limitation on issuance of any series of preferred stock ranking senior to or on a parity with that series of preferred stock as to dividend rights and rights upon liquidation, dissolution or the winding up of our affairs;
- the voting rights, if any, on the shares of the series;

- any or all other preferences and relative, participating, operational or other special rights or qualifications, limitations or restrictions of the shares; and
- any material United States federal income tax consequences.

The issuance of preferred stock may delay, deter or prevent a change in control.

Ranking

Unless we provide otherwise in an applicable prospectus supplement, the preferred stock offered through that supplement will, with respect to dividend rights and rights upon our liquidation, dissolution or winding up, rank:

- senior to all classes or series of our common stock, and to all other equity securities ranking junior to the offered preferred stock;
- on a parity with all of our equity securities ranking on a parity with the offered preferred stock; and
- junior to all of our equity securities ranking senior to the offered preferred stock.

As used herein, the term “equity securities” does not include convertible debt securities.

Voting Rights

Unless otherwise indicated in the applicable prospectus supplement, holders of our preferred stock will not have any voting rights, except as may be required by applicable law.

Dividends

Subject to any preferential rights of any outstanding shares or series of shares, our preferred stockholders are entitled to receive dividends, if any, when and as authorized by our Board, out of legally available funds, as specified in the applicable prospectus supplement.

Redemption

If we provide for a redemption right in a prospectus supplement, the preferred stock offered through that supplement will be subject to mandatory redemption or redemption at our option, in whole or in part, in each case upon the terms, at the times and at the redemption prices set forth in that prospectus supplement.

Liquidation Preference

In the event of our voluntary or involuntary dissolution, liquidation, or winding up, the holders of any series of our preferred stock will be entitled to receive, after distributions to holders of any series or class of our capital shares ranking senior, an amount equal to the stated or liquidation value of the series plus, if applicable, an amount equal to accrued and unpaid dividends. If the assets and funds to be distributed among the holders of our preferred stock will be insufficient to permit full payment to the holders, then the holders of our preferred stock will share ratably in any distribution of our assets in proportion to the amounts that they otherwise would receive on our preferred stock if the shares were paid in full.

Conversion Rights

The terms and conditions, if any, upon which any series of preferred stock is convertible into common stock or other securities will be set forth in the prospectus supplement relating to the offering of those preferred stock. These terms typically will include number of shares of common stock or other securities into which the preferred stock is convertible; conversion price (or manner of calculation); conversion period; provisions as to whether conversion will be at the option of the holders of the preferred stock or at our option; events, if any, requiring an adjustment of the conversion price; and provisions affecting conversion in the event of the redemption of that series of preferred stock.

Transfer Agent and Registrar

We will identify in a prospectus supplement the transfer agent and registrar for any series of preferred stock offered by this prospectus.

DESCRIPTION OF WARRANTS

The complete terms of the warrants we may issue will be contained in the applicable warrant agreement and warrant. These documents will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the warrant and warrant agreement. You should also read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the warrants to purchase common stock, preferred stock and/or debt securities that we may offer using this prospectus. Further terms of the warrants will be stated in the applicable prospectus supplement. The following description and any description of the rights in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of the warrant and warrant agreement.

General

We may issue warrants for the purchase of common stock, preferred stock and/or debt securities in one or more series. If we offer warrants, we will describe the terms in a prospectus supplement. Warrants may be offered independently, together with other securities offered by any prospectus supplement, or through a dividend or other distribution to stockholders and may be attached to or separate from other securities. Warrants may be issued under a written warrant agreement to be entered into between us and the holder or beneficial owner, or under a written warrant agreement with a warrant agent specified in a prospectus supplement. A warrant agent would act solely as our agent in connection with the warrants of a particular series and would not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of those warrants.

The following are some of the terms relating to a series of warrants that could be described in a prospectus supplement:

- title of the warrants;
- aggregate number of warrants;
- price or prices at which the warrants will be issued;
- designation, number, aggregate principal amount, denominations and terms of the securities that may be purchased on exercise of the warrants;
- date, if any, on and after which the warrants and the debt securities offered with the warrants, if any, will be separately transferable;
- purchase price for each security purchasable on exercise of the warrants;
- the terms for changes to or adjustments in the exercise price, if any;
- dates on which the right to purchase certain securities upon exercise of the warrants will begin and end;
- minimum or maximum number of securities that may be purchased at any one time upon exercise of the warrants;
- anti-dilution provisions or other adjustments to the exercise price of the warrants;
- terms of any right that we may have to redeem the warrants;
- effect of any merger, consolidation, sale or other transfer of our business on the warrants and the applicable warrant agreement;
- name and address of the warrant agent, if any;
- information with respect to book-entry procedures;
- any material United States federal income tax considerations; and
- other material terms, including terms relating to transferability, exchange, exercise or amendments of the warrants.

Until any warrants to purchase our securities are exercised, holders of the warrants will not have any rights of holders of the underlying securities.

Outstanding Warrants

As of June 22, 2023, we had no outstanding warrants to purchase shares of our common stock.

DESCRIPTION OF UNITS

The complete terms of the units will be contained in the unit agreement and any document applicable to the securities comprising the units. These documents will be included or incorporated by reference as exhibits to the registration statement of which this prospectus is a part. You should read the unit agreement and any related documents. You also should read the prospectus supplement, which will contain additional information and which may update or change some of the information below.

This section describes the general terms of the units that we may offer using this prospectus. Further terms of the units will be stated in the applicable prospectus supplement. The following description and any description of the units in a prospectus supplement may not be complete and is subject to and qualified in its entirety by reference to the terms of any agreement relating to the units and the related documents applicable to the securities constituting the units.

We may issue units, in one or more series, consisting of any combination of one or more of the other securities described in this prospectus. If we offer units, we will describe the terms in a prospectus supplement. Units may be issued under a written unit agreement to be entered into between us and the holder or beneficial owner, or we could issue units under a written unit agreement with a unit agent specified in a prospectus supplement. A unit agent would act solely as our agent in connection with the units of a particular series and would not assume any obligation or relationship of agency or trust for or with any holders or beneficial owners of those units.

Each unit will be issued so that the holder of the unit is also the holder of each security included in the unit. Thus, the holder of a unit will have the rights and obligations of a holder of each included security.

The following are some of the unit terms that could be described in a prospectus supplement:

- title of the units;
- aggregate number of units;
- price or prices at which the units will be issued;
- designation and terms of the units and of the securities comprising the units, including whether and under what circumstances those securities may be held or transferred separately;
- effect of any merger, consolidation, sale or other transfer of our business on the units and the applicable unit agreement;
- name and address of the unit agent;
- information with respect to book-entry procedures;
- any material United States federal income tax considerations; and
- other material terms, including terms relating to transferability, exchange, exercise or amendments of the units.

The provisions described in this section, as well as those described under “Description of Capital Stock,” “Description of Preferred Stock,” “Description of Debt Securities,” and “Description of Warrants,” will apply to each unit and to any common stock, preferred stock, debt security or warrant included in each unit, respectively.

Unless otherwise provided in the applicable prospectus supplement, the unit agreements will be governed by the laws of the State of New York. The unit agreement under which a unit is issued may provide that the securities included in the unit may not be held or transferred separately, at any time or at any time before a specified date. We will file as an exhibit to a filing with the SEC that is incorporated by reference into this prospectus the forms of the unit agreements containing the terms of the units being offered. The description of units in any prospectus supplement will not necessarily describe all of the terms of the units in detail. You should read the applicable unit agreements for a complete description of all of the terms.

GLOBAL SECURITIES

Book-Entry, Delivery and Form

Unless we indicate differently in any applicable prospectus supplement or free writing prospectus, the securities initially will be issued in book-entry form and represented by one or more global notes or global securities, or, collectively, global securities. The global securities will be deposited with, or on behalf of, The Depository Trust Company, New York, New York, as depository, or DTC, and registered in the name of Cede & Co., the nominee of DTC. Unless and until it is exchanged for individual certificates evidencing securities under the limited circumstances described below, a global security may not be transferred except as a whole by the depository to its nominee or by the nominee to the depository, or by the depository or its nominee to a successor depository or to a nominee of the successor depository.

DTC has advised us that it is:

- a limited-purpose trust company organized under the New York Banking Law;
- a “banking organization” within the meaning of the New York Banking Law;
- a member of the Federal Reserve System;
- a “clearing corporation” within the meaning of the New York Uniform Commercial Code; and
- a “clearing agency” registered pursuant to the provisions of Section 17A of the Exchange Act.

DTC holds securities that its participants deposit with DTC. DTC also facilitates the settlement among its participants of securities transactions, such as transfers and pledges, in deposited securities through electronic computerized book-entry changes in participants’ accounts, thereby eliminating the need for physical movement of securities certificates. “Direct participants” in DTC include securities brokers and dealers, including underwriters, banks, trust companies, clearing corporations and other organizations. DTC is a wholly-owned subsidiary of The Depository Trust & Clearing Corporation, or DTCC. DTCC is the holding company for DTC, National Securities Clearing Corporation and Fixed Income Clearing Corporation, all of which are registered clearing agencies. DTCC is owned by the users of its regulated subsidiaries. Access to the DTC system is also available to others, which we sometimes refer to as indirect participants, that clear through or maintain a custodial relationship with a direct participant, either directly or indirectly. The rules applicable to DTC and its participants are on file with the SEC.

Purchases of securities under the DTC system must be made by or through direct participants, which will receive a credit for the securities on DTC’s records. The ownership interest of the actual purchaser of a security, which we sometimes refer to as a beneficial owner, is in turn recorded on the direct and indirect participants’ records. Beneficial owners of securities will not receive written confirmation from DTC of their purchases. However, beneficial owners are expected to receive written confirmations providing details of their transactions, as well as periodic statements of their holdings, from the direct or indirect participants through which they purchased securities. Transfers of ownership interests in global securities are to be accomplished by entries made on the books of participants acting on behalf of beneficial owners. Beneficial owners will not receive certificates representing their ownership interests in the global securities, except under the limited circumstances described below.

To facilitate subsequent transfers, all global securities deposited by direct participants with DTC will be registered in the name of DTC’s partnership nominee, Cede & Co., or such other name as may be requested by an authorized representative of DTC. The deposit of securities with DTC and their registration in the name of Cede & Co. or such other nominee will not change the beneficial ownership of the securities. DTC has no knowledge of the actual beneficial owners of the securities. DTC’s records reflect only the identity of the direct participants to whose accounts the securities are credited, which may or may not be the beneficial owners. The participants are responsible for keeping account of their holdings on behalf of their customers.

So long as the securities are in book-entry form, you will receive payments and may transfer securities only through the facilities of the depositary and its direct and indirect participants. We will maintain an office or agency in the location specified in the prospectus supplement for the applicable securities, where notices and demands in respect of the securities and the indenture may be delivered to us and where certificated securities may be surrendered for payment, registration of transfer or exchange.

Conveyance of notices and other communications by DTC to direct participants, by direct participants to indirect participants and by direct participants and indirect participants to beneficial owners will be governed by arrangements among them, subject to any legal requirements in effect from time to time.

Redemption notices will be sent to DTC. If less than all of the securities of a particular series are being redeemed, DTC's practice is to determine by lot the amount of the interest of each direct participant in the securities of such series to be redeemed.

Neither DTC nor Cede & Co. (or such other DTC nominee) will consent or vote with respect to the securities. Under its usual procedures, DTC will mail an omnibus proxy to us as soon as possible after the record date. The omnibus proxy assigns the consenting or voting rights of Cede & Co. to those direct participants to whose accounts the securities of such series are credited on the record date, identified in a listing attached to the omnibus proxy.

So long as securities are in book-entry form, we will make payments on those securities to the depositary or its nominee, as the registered owner of such securities, by wire transfer of immediately available funds. If securities are issued in definitive certificated form under the limited circumstances described below and unless if otherwise provided in the description of the applicable securities herein or in the applicable prospectus supplement, we will have the option of making payments by check mailed to the addresses of the persons entitled to payment or by wire transfer to bank accounts in the United States designated in writing to the applicable trustee or other designated party at least 15 days before the applicable payment date by the persons entitled to payment, unless a shorter period is satisfactory to the applicable trustee or other designated party.

Redemption proceeds, distributions and dividend payments on the securities will be made to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC. DTC's practice is to credit direct participants' accounts upon DTC's receipt of funds and corresponding detail information from us on the payment date in accordance with their respective holdings shown on DTC records. Payments by participants to beneficial owners will be governed by standing instructions and customary practices, as is the case with securities held for the account of customers in bearer form or registered in "street name." Those payments will be the responsibility of participants and not of DTC or us, subject to any statutory or regulatory requirements in effect from time to time. Payment of redemption proceeds, distributions and dividend payments to Cede & Co., or such other nominee as may be requested by an authorized representative of DTC, is our responsibility, disbursement of payments to direct participants is the responsibility of DTC, and disbursement of payments to the beneficial owners is the responsibility of direct and indirect participants.

Except under the limited circumstances described below, purchasers of securities will not be entitled to have securities registered in their names and will not receive physical delivery of securities. Accordingly, each beneficial owner must rely on the procedures of DTC and its participants to exercise any rights under the securities and the indenture.

The laws of some jurisdictions may require that some purchasers of securities take physical delivery of securities in definitive form. Those laws may impair the ability to transfer or pledge beneficial interests in securities.

DTC may discontinue providing its services as securities depositary with respect to the securities at any time by giving reasonable notice to us. Under such circumstances, in the event that a successor depositary is not obtained, securities certificates are required to be printed and delivered.

As noted above, beneficial owners of a particular series of securities generally will not receive certificates representing their ownership interests in those securities. However, if:

- DTC notifies us that it is unwilling or unable to continue as a depositary for the global security or securities representing such series of securities or if DTC ceases to be a clearing agency registered under the Exchange Act at a time when it is required to be registered and a successor depositary is not appointed within 90 days of the notification to us or of our becoming aware of DTC's ceasing to be so registered, as the case may be;
- we determine, in our sole discretion, not to have such securities represented by one or more global securities; or
- an Event of Default has occurred and is continuing with respect to such series of securities,

we will prepare and deliver certificates for such securities in exchange for beneficial interests in the global securities. Any beneficial interest in a global security that is exchangeable under the circumstances described in the preceding sentence will be exchangeable for securities in definitive certificated form registered in the names that the depositary directs. It is expected that these directions will be based upon directions received by the depositary from its participants with respect to ownership of beneficial interests in the global securities.

Euroclear and Clearstream

If so provided in the applicable prospectus supplement, you may hold interests in a global security through Clearstream Banking S.A., which we refer to as "Clearstream," or Euroclear Bank S.A./N.V., as operator of the Euroclear System, which we refer to as "Euroclear," either directly if you are a participant in Clearstream or Euroclear or indirectly through organizations which are participants in Clearstream or Euroclear. Clearstream and Euroclear will hold interests on behalf of their respective participants through customers' securities accounts in the names of Clearstream and Euroclear, respectively, on the books of their respective U.S. depositaries, which in turn will hold such interests in customers' securities accounts in such depositaries' names on DTC's books.

Clearstream and Euroclear are securities clearance systems in Europe. Clearstream and Euroclear hold securities for their respective participating organizations and facilitate the clearance and settlement of securities transactions between those participants through electronic book-entry changes in their accounts, thereby eliminating the need for physical movement of certificates.

Payments, deliveries, transfers, exchanges, notices and other matters relating to beneficial interests in global securities owned through Euroclear or Clearstream must comply with the rules and procedures of those systems. Transactions between participants in Euroclear or Clearstream, on one hand, and other participants in DTC, on the other hand, are also subject to DTC's rules and procedures.

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers and other transactions involving any beneficial interests in global securities held through those systems only on days when those systems are open for business. Those systems may not be open for business on days when banks, brokers and other institutions are open for business in the United States.

Cross-market transfers between participants in DTC, on the one hand, and participants in Euroclear or Clearstream, on the other hand, will be effected through DTC in accordance with the DTC's rules on behalf of Euroclear or Clearstream, as the case may be, by their respective U.S. depositories; however, such cross-market transactions will require delivery of instructions to Euroclear or Clearstream, as the case may be, by the counterparty in such system in accordance with the rules and procedures and within the established deadlines (European time) of such system. Euroclear or Clearstream, as the case may be, will, if the transaction meets its settlement requirements, deliver instructions to its U.S. depository to take action to effect final settlement on its behalf by delivering or receiving interests in the global securities through DTC, and making or receiving payment in accordance with normal procedures for same-day fund settlement. Participants in Euroclear or Clearstream may not deliver instructions directly to their respective U.S. depositories.

Due to time zone differences, the securities accounts of a participant in Euroclear or Clearstream purchasing an interest in a global security from a direct participant in DTC will be credited, and any such crediting will be reported to the relevant participant in Euroclear or Clearstream, during the securities settlement processing day (which must be a business day for Euroclear or Clearstream) immediately following the settlement date of DTC. Cash received in Euroclear or Clearstream as a result of sales of interests in a global security by or through a participant in Euroclear or Clearstream to a direct participant in DTC will be received with value on the settlement date of DTC but will be available in the relevant Euroclear or Clearstream cash account only as of the business day for Euroclear or Clearstream following DTC's settlement date.

Other

The information in this section of this prospectus concerning DTC, Clearstream, Euroclear and their respective book-entry systems has been obtained from sources that we believe to be reliable, but we do not take responsibility for this information. This information has been provided solely as a matter of convenience. The rules and procedures of DTC, Clearstream and Euroclear are solely within the control of those organizations and could change at any time. Neither we nor the trustee nor any agent of ours or of the trustee has any control over those entities and none of us takes any responsibility for their activities. You are urged to contact DTC, Clearstream and Euroclear or their respective participants directly to discuss those matters. In addition, although we expect that DTC, Clearstream and Euroclear will perform the foregoing procedures, none of them is under any obligation to perform or continue to perform such procedures and such procedures may be discontinued at any time. Neither we nor any agent of ours will have any responsibility for the performance or nonperformance by DTC, Clearstream and Euroclear or their respective participants of these or any other rules or procedures governing their respective operations.

PLAN OF DISTRIBUTION

We may offer and sell the securities covered by this prospectus in any one or more of the following ways:

- to or through underwriters, brokers or dealers;
- directly to one or more other purchasers;
- upon the exercise of rights distributed or issued to our security holders;
- through a block trade in which the broker or dealer engaged to handle the block trade will attempt to sell the securities as agent, but may position and resell a portion of the block as principal to facilitate the transaction;
- in payment of our and our subsidiaries' outstanding indebtedness;
- through agents on a best-efforts basis; or
- otherwise through a combination of any of the above methods of sale.

We may sell the securities being offered by this prospectus by any other method permitted by law, including sales deemed to be an "at the market" offering as defined in Rule 415(a)(4) of the Securities Act, including without limitation sales made directly on The Nasdaq Capital Market, on any other existing trading market for our securities or to or through a market maker.

In addition, we may enter into option, share lending or other types of transactions that require us to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus. We may also enter into hedging transactions with respect to our securities. For example, we or the selling stockholders may:

- enter into transactions involving short sales of the shares of common stock by underwriters, brokers or dealers;
- sell shares of common stock short and deliver the shares to close out short positions;
- enter into option or other types of transactions that require us or the selling stockholders, as applicable, to deliver shares of common stock to an underwriter, broker or dealer, who will then resell or transfer the shares of common stock under this prospectus; or
- loan or pledge the shares of common stock to an underwriter, broker or dealer, who may sell the loaned shares or, in the event of default, sell the pledged shares.

We may enter into derivative transactions with third parties, or sell securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement or free writing prospectus indicates, in connection with those derivatives, the third parties may sell securities covered by this prospectus and the applicable prospectus supplement or free writing prospectus, including in short sale transactions. If so, the third party may use securities pledged by us or borrowed from us to settle those sales or to close out any related open borrowings of stock, and may use securities received from us or selling stockholders in settlement of those derivatives to close out any related open borrowings of stock. The third party in such sale transactions will be an underwriter identified in the applicable prospectus supplement or free writing prospectus. In addition, we may otherwise loan or pledge securities to a financial institution or other third party that in turn may sell the securities short using this prospectus. Such financial institution or other third party may transfer its economic short position to investors in our securities or in connection with a concurrent offering of other securities.

Each time we sell securities, we will provide a prospectus supplement that will name any underwriter, dealer or agent involved in the offer and sale of the securities. The prospectus supplement will also set forth the terms of the offering, including:

- the purchase price of the securities and the proceeds we will receive from the sale of the securities;
- any underwriting discounts and other items constituting underwriters' compensation;
- any public offering or purchase price and any discounts or commissions allowed or re-allowed or paid to dealers;
- any commissions allowed or paid to agents;
- any other offering expenses;
- any securities exchanges on which the securities may be listed;
- the method of distribution of the securities;
- the terms of any agreement, arrangement or understanding entered into with the underwriters, brokers or dealers; and
- any other information we think is important.

If underwriters or dealers are used in the sale, the securities will be acquired by the underwriters or dealers for their own account. The securities may be sold from time to time by us in one or more transactions:

- at a fixed price or prices, which may be changed;
- at market prices prevailing at the time of sale;
- at prices related to such prevailing market prices;
- at varying prices determined at the time of sale; or
- at negotiated prices.

Such sales may be effected:

- in transactions on any national securities exchange or quotation service on which the securities may be listed or quoted at the time of sale;
- in transactions in the over-the-counter market;
- in block transactions in which the broker or dealer so engaged will attempt to sell the securities as agent but may position and resell a portion of the block as principal to facilitate the transaction, or in crosses, in which the same broker acts as an agent on both sides of the trade;
- through the writing of options; or
- through other types of transactions.

The securities may be offered to the public either through underwriting syndicates represented by one or more managing underwriters or directly by one or more of such firms. Unless otherwise set forth in the prospectus supplement or free writing prospectus, the obligations of underwriters or dealers to purchase the securities offered will be subject to certain conditions precedent and the underwriters or dealers will be obligated to purchase all the offered securities if any are purchased. Any public offering price and any discount or concession allowed or reallocated or paid by underwriters or dealers to other dealers may be changed from time to time.

In order to facilitate the offering of the securities, any underwriters may engage in transactions that stabilize, maintain or otherwise affect the price of the securities or any other securities the prices of which may be used to determine payments on such securities. Specifically, any underwriters may over-allot in connection with the offering, creating a short position for their own accounts. In addition, to cover over-allotments or to stabilize the price of the securities or of any such other securities, the underwriters may bid for, and purchase, the securities or any such other securities in the open market. Finally, in any offering of the securities through a syndicate of underwriters, the underwriting syndicate may reclaim selling concessions allowed to an underwriter or a dealer for distributing the securities in the offering if the syndicate repurchases previously distributed securities in transactions to cover syndicate short positions, in stabilization transactions or otherwise. Any of these activities may stabilize or maintain the market price of the securities above independent market levels. Any such underwriters are not required to engage in these activities and may end any of these activities at any time.

Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in two business days, unless the parties to any such trade expressly agree otherwise. The applicable prospectus supplement may provide that the original issue date for your securities may be more than two scheduled business days after the trade date for your securities. Accordingly, in such a case, if you wish to trade securities on any date prior to the third business day before the original issue date for your securities, you will be required, by virtue of the fact that your securities initially are expected to settle in more than three scheduled business days after the trade date for your securities, to make alternative settlement arrangements to prevent a failed settlement.

The securities may be new issues of securities and may have no established trading market. The securities may or may not be listed on a national securities exchange. We can make no assurance as to the liquidity of or the existence of trading markets for any of the securities. The securities may be sold directly by us or through agents designated by us from time to time. Any agent involved in the offer or sale of the securities in respect of which this prospectus is delivered will be named, and any commissions payable by us to such agent will be set forth in, the prospectus supplement. Unless otherwise indicated in the prospectus supplement, any such agent will be acting on a best-efforts basis for the period of its appointment.

Offers to purchase the securities offered by this prospectus may be solicited, and sales of the securities may be made by us directly to institutional investors or others, who may be deemed to be underwriters within the meaning of the Securities Act with respect to any resale of the securities. The terms of any offer made in this manner will be included in the prospectus supplement relating to the offer.

If indicated in the applicable prospectus supplement, underwriters, dealers or agents will be authorized to solicit offers by certain institutional investors to purchase securities from us pursuant to contracts providing for payment and delivery at a future date. Institutional investors with which these contracts may be made include, among

others:

- commercial and savings banks;
- insurance companies;
- pension funds;
- investment companies; and
- educational and charitable institutions.

In all cases, these purchasers must be approved by us. Unless otherwise set forth in the applicable prospectus supplement, the obligations of any purchaser under any of these contracts will not be subject to any conditions except that (a) the purchase of the securities must not at the time of delivery be prohibited under the laws of any jurisdiction to which that purchaser is subject, and (b) if the securities are also being sold to underwriters, we must have sold to these underwriters the securities not subject to delayed delivery. Underwriters and other agents will not have any responsibility in respect of the validity or performance of these contracts.

Some of the underwriters, dealers or agents used by us in any offering of securities under this prospectus may be customers of, engage in transactions with, and perform services for us or affiliates of ours in the ordinary course of business. Underwriters, dealers, agents and other persons may be entitled under agreements which may be entered into with us to indemnification against and contribution toward certain civil liabilities, including liabilities under the Securities Act, and to be reimbursed by us for certain expenses.

Subject to any restrictions relating to debt securities in bearer form, any securities initially sold outside the United States may be resold in the United States through underwriters, dealers or otherwise.

Any underwriters to which offered securities are sold by us for public offering and sale may make a market in such securities, but those underwriters will not be obligated to do so and may discontinue any market making at any time.

The anticipated date of delivery of the securities offered by this prospectus will be described in the applicable prospectus supplement relating to the offering.

To comply with the securities laws of some states, if applicable, the securities may be sold in these jurisdictions only through registered or licensed brokers or dealers. In addition, in some states the securities may not be sold unless they have been registered or qualified for sale or an exemption from registration or qualification requirements is available and is complied with.

LEGAL MATTERS

Unless otherwise indicated in the applicable prospectus supplement or free writing prospectus, the validity of the securities being offered by this prospectus will be passed upon by Troutman Pepper Hamilton Sanders LLP, Irvine, California.

EXPERTS

The consolidated financial statements of Alto Ingredients as of December 31, 2022 and 2021, and for each of the three years in the period ended December 31, 2022, appearing in Alto Ingredients' Annual Report on Form 10-K for the year ended December 31, 2022 and the effectiveness of Alto Ingredients' internal control over financial reporting have been audited by RSM US LLP, an independent registered public accounting firm, as stated in their reports thereon, included therein, and incorporated herein by reference. Such consolidated financial statements are incorporated herein by reference in reliance upon such report given on the authority of such firm as experts in accounting and auditing.

WHERE YOU CAN FIND ADDITIONAL INFORMATION

We have filed with the SEC a registration statement on Form S-3 under the Securities Act, and the rules and regulations promulgated under the Securities Act, with respect to the securities offered under this prospectus. This prospectus, which constitutes a part of the registration statement, does not contain all of the information contained in the registration statement and the exhibits and schedules to the registration statement. Many of the contracts and documents described in this prospectus are filed as exhibits to the registration statements and you may review the full text of these contracts and documents by referring to these exhibits.

For further information with respect to us and the securities offered under this prospectus, reference is made to the registration statement and its exhibits and schedules. We file reports, including annual reports on Form 10-K, quarterly reports on Form 10-Q and current reports on Form 8-K with the SEC.

The SEC maintains an Internet web site that contains reports, proxy and information statements and other information regarding issuers, including Alto Ingredients, that file electronically with the SEC. The SEC's Internet website address is <http://www.sec.gov>. Our Internet website address is <http://www.altoingredients.com>. Our website and the information contained therein or connected thereto are not incorporated into this prospectus, and such information should not be considered part of this prospectus. You should not rely on any such information in making your decision whether to purchase our securities.

We do not anticipate that we will send an annual report to our stockholders until and unless we are required to do so by the rules of the SEC.

All trademarks or trade names referred to in this prospectus are the property of their respective owners.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC allows us to "incorporate by reference" the information we file with the SEC. This means that we can disclose important information to you by referring you to another filed document. Any information referred to in this way is considered part of this prospectus from the date we file that document. Any reports filed by us with the SEC after the date of this prospectus and before the date that the offering of the securities by means of this prospectus is terminated will automatically update and, where applicable, supersede any information contained in this prospectus or incorporated by reference in this prospectus. Accordingly, we incorporate by reference the following documents or information filed with the SEC:

- our Current Report on [Form 8-K](#), which we filed with the SEC on June 22, 2023;
- our Quarterly Report on [Form 10-Q](#) for the quarterly period ended March 31, 2023, which we filed with the SEC on May 9, 2023;
- our Annual Report on [Form 10-K](#) for the fiscal year ended December 31, 2022, which we filed with the SEC on March 14, 2023;

- the description of our capital stock contained in [Exhibit 4.1](#) of our Annual Report on Form 10-K, which we filed with the SEC on March 30, 2020, which description updates our Form 8-A description of securities; and
- all documents filed by us in accordance with Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before the termination of an offering under this prospectus, other than documents or information deemed furnished and not filed in accordance with SEC rules.

We will provide a copy of the documents we incorporate by reference, at no cost, to any person who received this prospectus. To request a copy of any or all of these documents, you should write or telephone us at: Investor Relations, Alto Ingredients, Inc., 1300 South Second Street, Pekin, Illinois 61554, (916) 403-2123. In addition, each document incorporated by reference is readily accessible on our website at www.altoingredients.com.

PART II
INFORMATION NOT REQUIRED IN PROSPECTUS

ITEM 14. OTHER EXPENSES OF ISSUANCE AND DISTRIBUTION

The following table sets forth all fees and expenses payable by the registrant in connection with the issuance and distribution of the securities registered hereby (other than underwriting discounts and commissions). All amounts are estimated.

SEC registration fee	\$	8,811.10
Accounting fees and expenses		*
Printing fees and expenses		*
Legal fees and expenses		*
Transfer agent fees and expenses		*
Trustee fees and expenses		*
Miscellaneous fees and expenses		*
Total	\$	*

* These fees are calculated based on the number of issuances and the amount of securities offered and accordingly cannot be estimated at this time. The applicable prospectus supplement will set forth the estimated amount of expenses of any offering of securities.

ITEM 15. INDEMNIFICATION OF DIRECTORS AND OFFICERS

Section 145 of the Delaware General Corporation Law (“DGCL”) permits a corporation to indemnify its directors and officers against expenses, judgments, fines and amounts paid in settlement actually and reasonably incurred in connection with a pending or completed action, suit or proceeding if the officer or director acted in good faith and in a manner the officer or director reasonably believed to be in the best interests of the corporation.

Our certificate of incorporation provides that, except in some specified instances, our directors shall not be personally liable to us or our stockholders for monetary damages for breach of their fiduciary duty as directors, except liability for the following:

- any breach of their duty of loyalty to Alto Ingredients or our stockholders;
- acts or omissions not in good faith or which involve intentional misconduct or a knowing violation of law;
- unlawful payments of dividends or unlawful stock repurchases or redemptions as provided in Section 174 of the DGCL; and
- any transaction from which the director derived an improper personal benefit.

In addition, our certificate of incorporation and bylaws obligate us to indemnify our directors and officers against expenses and other amounts reasonably incurred in connection with any proceeding arising from the fact that such person is or was an agent of ours. Our bylaws also authorize us to purchase and maintain insurance on behalf of any of our directors or officers against any liability asserted against that person in that capacity, whether or not we would have the power to indemnify that person under the provisions of the DGCL. We have entered and expect to continue to enter into agreements to indemnify our directors and officers as determined by our Board. These agreements provide for indemnification of related expenses including attorneys’ fees and settlement amounts incurred by any of these individuals in any action or proceeding. We believe that these bylaw provisions and indemnification agreements are necessary to attract and retain qualified persons as directors and officers. We also maintain directors’ and officers’ liability insurance.

The limitation of liability and indemnification provisions in our certificate of incorporation and bylaws may discourage stockholders from bringing a lawsuit against our directors for breach of their fiduciary duty. They may also reduce the likelihood of derivative litigation against our directors and officers, even though an action, if successful, might benefit us and other stockholders. Furthermore, a stockholder’s investment may be adversely affected to the extent that we pay the costs of settlement and damage awards against directors and officers as required by these indemnification provisions.

The underwriting agreements that we might enter into (Exhibits 1.1, 1.2, 1.3 and 1.4) will provide for indemnification by us of any underwriters, our directors, our officers who sign the registration statement and our controlling person for some liabilities, including liabilities arising under the Securities Act.

Insofar as the provisions of our certificate of incorporation or bylaws provide for indemnification of directors or officers for liabilities arising under the Securities Act, we have been informed that in the opinion of the SEC this indemnification is against public policy as expressed in the Securities Act and is therefore unenforceable.

ITEM 16. EXHIBITS

**Exhibit
Number**

Description

1.1*	Form of Underwriting Agreement for Common Stock
1.2*	Form of Underwriting Agreement for Preferred Stock
1.3*	Form of Underwriting Agreement for Units
1.4*	Form of Underwriting Agreement for Senior and Subordinated Debt Securities
4.1	Certificate of Incorporation (incorporated by reference to Exhibit 3.1 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.2	Certificate of Designations, Powers, Preferences and Rights of the Series A Cumulative Redeemable Convertible Preferred Stock (incorporated by reference to Exhibit 3.2 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.3	Certificate of Designations, Powers, Preferences and Rights of the Series B Cumulative Convertible Preferred Stock (incorporated by reference to Exhibit 3.3 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.4	Certificate of Amendment to Certificate of Incorporation dated June 3, 2010 (incorporated by reference to Exhibit 3.4 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.5	Certificate of Amendment to Certificate of Incorporation dated June 8, 2011 (incorporated by reference to Exhibit 3.5 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.6	Certificate of Amendment to Certificate of Incorporation dated May 14, 2013 (incorporated by reference to Exhibit 3.6 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)

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Exhibit Number	Description
4.7	Certificate of Amendment to Certificate of Incorporation dated July 1, 2015 (incorporated by reference to Exhibit 3.7 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.8	Certificate of Amendment to Certificate of Incorporation dated January 12, 2021 (incorporated by reference to Exhibit 3.8 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.9	Second Amended and Restated Bylaws (incorporated by reference to Exhibit 3.9 of the Company's Quarterly Report on Form 10-Q filed on May 17, 2021)
4.10	Specimen Common Stock Certificate
4.11	Form of Senior Debt Indenture
4.12	Form of Subordinated Debt Indenture
4.13*	Form of Senior Debt Security
4.14*	Form of Subordinated Debt Security
4.15*	Form of Certificate of Designations Creating New Series of Preferred Stock
4.16*	Form of Specimen Preferred Stock Certificate
4.17*	Form of Common Stock Warrant Agreement and Warrant Certificate
4.18*	Form of Preferred Stock Warrant Agreement and Warrant Certificate
4.19*	Form of Debt Securities Warrant Agreement and Warrant Certificate
4.20*	Form of Unit Agreement
5.1	Opinion of Troutman Pepper Hamilton Sanders LLP
23.1	Consent of Troutman Pepper Hamilton Sanders LLP (contained in Exhibit 5.1)
23.2	Consent of RSM US LLP
24.1	Power of Attorney
25.1**	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of trustee, as trustee under the indenture filed as Exhibit 4.11 above.
25.2**	Statement of Eligibility on Form T-1 under the Trust Indenture Act of 1939, as amended, of trustee, as trustee under the indenture filed as Exhibit 4.12 above.
107	Calculation of Filing Fee Table

* To be filed by amendment or incorporated by reference in connection with the offering of the securities.

** To be filed in accordance with Section 305(b)(2) of the Trust Indenture Act of 1939.

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ITEM 17. UNDERTAKINGS

The undersigned registrant hereby undertakes:

(a) (1) To file, during any period in which offers or sales are being made, a post-effective amendment to this registration statement:

(i) To include any prospectus required by Section 10(a)(3) of the Securities Act of 1933;

(ii) To reflect in the prospectus any facts or events arising after the effective date of the registration statement (or the most recent post-effective amendment thereof) which, individually or in the aggregate, represent a fundamental change in the information set forth in the registration statement. Notwithstanding the foregoing, any increase or decrease in volume of securities offered (if the total dollar value of securities offered would not exceed that which was registered) and any deviation from the low or high end of the estimated maximum offering range may be reflected in the form of prospectus filed with the Commission pursuant to Rule 424(b) if, in the aggregate, the changes in volume and price represent no more than a 20 percent change in the maximum aggregate offering price set forth in the "Calculation of Registration fee" table in the effective registration statement; and

(iii) To include any material information with respect to the plan of distribution not previously disclosed in the registration statement or any material change to such information in the registration statement;

provided, however, that paragraphs (1)(i), (1)(ii) and (1)(iii) shall not apply if the information required to be included in a post-effective amendment by those paragraphs is contained in reports filed with or furnished to the Commission by the Registrant pursuant to Section 13 or Section 15(d) of the Securities Exchange Act of 1934 that are incorporated by reference in the registration statement, or is contained in a form of prospectus filed pursuant to Rule 424(b) that is part of the registration statement.

(2) That, for the purpose of determining any liability under the Securities Act of 1933, each such post-effective amendment shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(3) To remove from registration by means of a post-effective amendment any of the securities being registered which remain unsold at the termination of the offering.

(4) That, for the purpose of determining liability under the Securities Act of 1933 to any purchaser:

(A) Each prospectus filed by the registrant pursuant to Rule 424(b)(3) shall be deemed to be part of the registration statement as of the date the filed prospectus was deemed part of and included in the registration statement; and

(B) Each prospectus required to be filed pursuant to Rule 424(b)(2), (b)(5), or (b)(7) as part of a registration statement in reliance on Rule 430B relating to an offering made pursuant to Rule 415(a)(1)(i), (vii), or (x) for the purpose of providing the information required by Section 10(a) of the Securities Act of 1933 shall be deemed to be part of and included in the registration statement as of the earlier of the date such form of prospectus is first used after effectiveness or the date of the first contract of sale of securities in the offering described in the prospectus. As provided in Rule 430B, for liability purposes of the issuer and any person that is at that date an underwriter, such date shall be deemed to be a new effective date of the registration statement relating to the securities in the registration statement to which that prospectus relates, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof. Provided, however, that no statement made in a registration statement or prospectus that is part of the registration statement or made in a document incorporated or deemed incorporated by reference into the registration statement or prospectus that is part of the registration statement will, as to a purchaser with a time of contract of sale prior to such effective date, supersede or modify any statement that was made in the registration statement or prospectus that was part of the registration statement or made in any such document immediately prior to such effective date.

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(5) That, for the purpose of determining liability of the registrant under the Securities Act of 1933 to any purchaser in the initial distribution of the securities:

The undersigned registrant undertakes that in a primary offering of securities of the undersigned registrant pursuant to this registration statement, regardless of the underwriting method used to sell the securities to the purchaser, if the securities are offered or sold to such purchaser by means of any of the following communications, the undersigned registrant will be a seller to the purchaser and will be considered to offer or sell such securities to such purchaser:

(i) Any preliminary prospectus or prospectus of the undersigned registrant relating to the offering required to be filed pursuant to Rule 424;

(ii) Any free writing prospectus relating to the offering prepared by or on behalf of the undersigned registrant or used or referred to by the undersigned registrant;

(iii) The portion of any other free writing prospectus relating to the offering containing material information about the undersigned registrant or its securities provided by or on behalf of the undersigned registrant; and

(iv) Any other communication that is an offer in the offering made by the undersigned registrant to the purchaser.

(b) The undersigned registrant hereby undertakes that, for purposes of determining any liability under the Securities Act of 1933, each filing of the registrant's annual report pursuant to Section 13(a) or Section 15(d) of the Securities Exchange Act of 1934 (and, where applicable, each filing of an employee benefit plan's annual report pursuant to section 15(d) of the Securities Exchange Act of 1934) that is incorporated by reference in the registration statement shall be deemed to be a new registration statement relating to the securities offered therein, and the offering of such securities at that time shall be deemed to be the initial *bona fide* offering thereof.

(c) Insofar as indemnification for liabilities arising under the Securities Act of 1933 may be permitted to directors, officers and controlling persons of the registrant pursuant to the foregoing provisions, or otherwise, the registrant has been advised that in the opinion of the SEC such indemnification is against public policy as expressed in the Securities Act and is, therefore, unenforceable. In the event that a claim for indemnification against such liabilities (other than the payment by the registrant of expenses incurred or paid by a director, officer or controlling person of the registrant in the successful defense of any action, suit or proceeding) is asserted by such director, officer or controlling person in connection with the securities being registered, the registrant will, unless in the opinion of its counsel the matter has been settled by controlling precedent, submit to a court of appropriate jurisdiction the question whether such indemnification by it is against public policy as expressed in the Securities Act of 1933 and will be governed by the final adjudication of such issue.

(d) The undersigned registrant hereby undertakes to file an application for the purpose of determining the eligibility of the trustee to act under subsection (a) of Section 310 of the Trust Indenture Act in accordance with the rules and regulations prescribed by the SEC under section 305(b)(2) of the Trust Indenture Act.

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SIGNATURES

Pursuant to the requirements of the Securities Act of 1933, the Registrant certifies that it has reasonable grounds to believe that it meets all of the requirements for filing on Form S-3 and has duly caused this Registration Statement to be signed on its behalf by the undersigned, thereunto duly authorized, in the City of Sacramento, State of California, on this 23rd day of June, 2023.

ALTO INGREDIENTS, INC.,
a Delaware corporation

By: /s/ MICHAEL D. KANDRIS
Michael D. Kandris
President and Chief Executive Officer

KNOW ALL PERSONS BY THESE PRESENTS, that each person whose signature appears below constitutes and appoints Michael D. Kandris his or her attorney-in-fact and agent, with the power of substitution and resubstitution, for him or her and in his or her name, place or stead, in any and all capacities, to sign any amendment to this registration statement on Form S-3, and to file such amendments, together with exhibits and other documents in connection therewith, with the SEC, granting to such attorney-in-fact and agent, full power and authority to do and perform each and every act and thing requisite and necessary to be done in and about the premises, as fully as he or she might or could do in person, and ratifying and confirming all that the attorney-in-fact and agent, or his substitute or substitutes, may do or cause to be done by virtue hereof.

Pursuant to the requirements of the Securities Act of 1933, this registration statement has been signed by the following persons in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ DOUGLAS L. KIETA</u> Douglas L. Kieta	Chairman of the Board and Director	June 23, 2023
<u>/s/ MICHAEL D. KANDRIS</u> Michael D. Kandris	President, Chief Executive Officer (principal executive officer), Chief Operating Officer and Director	June 23, 2023
<u>/s/ BRYON T. MCGREGOR</u> Bryon T. McGregor	Chief Financial Officer (principal financial and accounting officer)	June 23, 2023
<u>/s/ MARIA G. GRAY</u> Maria G. Gray	Director	June 23, 2023
<u>/s/ DIANNE S. NURY</u> Dianne S. Nury	Director	June 23, 2023
<u>/s/ GILBERT E. NATHAN</u> Gilbert E. Nathan	Director	June 23, 2023

SPECIMEN

NUMBER
AI 1001



SHARES
SPECIMEN
COMMON STOCK

INCORPORATED UNDER THE LAWS OF THE STATE OF DELAWARE

SEE REVERSE FOR CERTAIN DEFINITIONS

CUSIP 021513 10 6

THIS CERTIFIES THAT:

SPECIMEN

IS THE OWNER OF

FULLY PAID AND NON-ASSESSABLE SHARES OF COMMON STOCK OF \$0.001 PAR VALUE EACH OF

ALTO INGREDIENTS, Inc.

transferable on the books of the Corporation by the holder hereof in person or by duly authorized attorney upon surrender of this certificate duly endorsed. This certificate and the shares represented hereby are subject to the laws of the State of Delaware, and to the Certificate of Incorporation and Bylaws of the Corporation, as now in effect or as hereafter amended.

This certificate is not valid until countersigned and registered by the Transfer Agent and Registrar.

WITNESS the facsimile seal of the Corporation and the facsimile signatures of its duly authorized officers.

DATED:

Christopher W. Higin
SECRETARY



Michael D. Kovich
CHIEF EXECUTIVE OFFICER

AMERICAN STOCK TRANSFER & TRUST COMPANY, LLC
BROOKLYN, NY
TRANSFER AGENT AND REGISTRAR
[Signature]
AUTHORIZED SIGNATURE

SPECIMEN

ALTO INGREDIENTS, INC.

AND

[TRUSTEE]

Trustee

INDENTURE

DATED AS OF _____, 20__

SENIOR DEBT SECURITIES

ALTO INGREDIENTS, INC.
RECONCILIATION AND TIE BETWEEN TRUST INDENTURE ACT OF 1939, AS AMENDED,
AND INDENTURE, DATED AS OF _____, 20__

TRUST INDENTURE ACT SECTION	INDENTURE SECTION
Section 310(a)(1)	6.9
(a)(2)	6.9
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	6.9
(b)	6.8
Section 311	6.13
Section 312(a)	7.1, 7.2(a)
(b)	7.2(b)
(c)	7.2(c)
Section 313(a)	7.3
(b)	*
(c)	*
(d)	7.3
Section 314(a)	7.4
(a)(4)	10.5
(b)	Not Applicable
(c)(1)	1.3
(c)(2)	1.3
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	1.3
Section 315(a)	6.1(a)
(b)	6.2
(c)	6.1(b)
(d)	6.1(c)
(d)(1)	6.1(a)(1)
(d)(2)	6.1(c)(2)
(d)(3)	6.1(c)(3)
(e)	5.14
Section 316(a)	1.1, 1.2
(a)(1)(A)	5.2, 5.12
(a)(1)(B)	5.13
(a)(2)	Not Applicable
(b)	5.8
(c)	1.5(f)
Section 317(a)(1)	5.3
(a)(2)	5.4
(b)	10.3
Section 318(a)	1.8

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

* Deemed included pursuant to Section 318(c) of the Trust Indenture Act

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INDENTURE

INDENTURE, dated as of _____, 20__, between ALTO INGREDIENTS, INC., a corporation duly organized and existing under the laws of the State of Delaware (herein called the “**Company**”) and [TRUSTEE], a banking corporation organized under the laws of the United States, as trustee (the “**Trustee**”).

RECITALS

WHEREAS, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured senior debentures, notes or other evidences of indebtedness (herein called the “**Securities**”), to be issued in one or more series as provided in this Indenture;

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done; and

WHEREAS, this Indenture is subject to the provisions of the Trust Indenture Act that are required to be a part of this Indenture and, to the extent applicable, shall be governed by such provisions.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of series thereof, as follows:

ARTICLE ONE DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

1.1 Definitions. For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

(a) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;

(b) all terms used in this Indenture that are defined in the Trust Indenture Act, defined by a Trust Indenture Act reference to another statute or defined by an SEC rule under the Trust Indenture Act have the meanings so assigned to them;

(c) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with GAAP;

(d) the words “**herein**,” “**hereof**” and “**hereunder**” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision;

(e) the words “**Article**” and “**Section**” refer to an Article and Section, respectively, of this Indenture; and

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(f) the word “**includes**” and its derivatives means “**includes, but is not limited to**” and corresponding derivative definitions.

Certain terms, used principally in Article Six, are defined in that Article.

“**Act**,” when used with respect to any Holder, has the meaning specified in Section 1.5.

“**Additional Defeasible Provision**” means a covenant or other provision contained that is (a) made part of this Indenture pursuant to a supplemental indenture hereto, a Board Resolution or an Officer’s Certificate delivered pursuant to Section 3.1, and (b) pursuant to the terms set forth in such supplemental indenture, Board Resolution or Officer’s Certificate, made subject to the provisions of Article Thirteen.

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, “**control**,” as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise. For purposes of this definition, the terms “**controlling**,” “**controlled by**” and “**under common control with**” have correlative meanings.

“**Authenticating Agent**” means any Person authorized by the Trustee to act on behalf of the Trustee to authenticate Securities.

“**Banking Day**” means, in respect of any city, any date on which commercial banks are open for business in that city.

“**Bankruptcy Law**” means any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law.

“**Board of Directors**” means the board of directors of the Company or any duly authorized committee of that board to which the powers of that board have been lawfully delegated.

“**Board Resolution**” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company, the principal financial officer of the Company, any other authorized officer of the Company, or a person duly authorized by any of them, in each case as applicable, to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee. Where any provision of this Indenture refers to action to be taken pursuant to a Board Resolution (including the establishment of any series of the Securities and the forms and terms thereof), such action may be taken by any committee, officer or employee of the Company authorized to take such action by the Board of Directors as evidenced by a Board Resolution.

“**Business Day**,” when used with respect to any Place of Payment or other location, means, except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in that Place of Payment or other location are authorized or obligated by law, executive order or regulation to close.

2

“**CINS**” means the CUSIP International Numbering System.

“**Code**” means the United States Internal Revenue Code of 1986, as amended.

“**Company**” means the Person named as the “Company” in the first paragraph of this instrument until a successor or resulting corporation shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor or resulting corporation.

“**Company Request**” or “**Company Order**” means, in the case of the Company, a written request or order signed in the name of the Company by its Chairman of the Board, its Chief Executive Officer, its Chief Financial Officer, its Chief Operating Officer, its President, any of its Vice Presidents or any other duly authorized officer of the Company or any person duly authorized by any of them, and delivered to the Trustee.

“**Corporate Trust Office**” means the office of the Trustee at its address specified in Section 1.6 or such other address as to which the Trustee may give notice to the Company.

“**corporation**” includes corporations, companies, associations, partnerships, limited partnerships, limited liability companies, joint-stock companies and trusts.

“**Covenant Defeasance**” has the meaning specified in Section 13.3.

“**CUSIP**” means the Committee on Uniform Securities Identification Procedures.

“**Custodian**” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“**Debt**” means any obligation created or assumed by any Person for the repayment of money borrowed and any purchase money obligation created or assumed by such Person and any guarantee of the foregoing.

“**Default**” means, with respect to a series of Securities, any event that is, or after notice or lapse of time or both would be, an Event of Default.

“**Defaulted Interest**” has the meaning specified in Section 3.7.

“**Definitive Security**” means a security other than a Global Security or a temporary Security.

“**Depository**” means, with respect to the Securities of any series issuable or issued in whole or in part in the form of one or more Global Securities, a clearing agency registered under the Exchange Act that is designated to act as Depository for such Securities as contemplated by [Section 3.1](#), until a successor Depository shall have become such pursuant to the applicable provisions of this Indenture, and thereafter shall mean or include each Person which is a Depository hereunder, and if at any time there is more than one such Person, shall be a collective reference to such Persons.

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“**Dollar**” or “**\$**” means the coin or currency of the United States of America, which at the time of payment is legal tender for the payment of public and private debts.

“**Event of Default**” has the meaning specified in [Section 5.1](#).

“**Exchange Act**” means the Securities Exchange Act of 1934, as amended.

“**Foreign Currency**” means a currency used by the government of a country other than the United States of America.

“**GAAP**” means generally accepted accounting principles in the United States of America as in effect from time to time, including those set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as approved by a significant segment of the accounting profession. All ratios and computations based on GAAP contained in this Indenture will be computed in conformity with GAAP.

“**Global Security**” means a Security in global form that evidences all or part of a series of Securities and is authenticated and delivered to, and registered in the name of, the Depository for the Securities of such series or its nominee.

“**Holder**” means a Person in whose name a Security is registered in the Security Register.

“**Indenture**” means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, including, for all purposes of this instrument, and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be part of and govern this instrument and any such supplemental indenture, respectively. The term “Indenture” also shall include the terms of a particular series of Securities established as contemplated by [Section 3.1](#).

“**interest**,” when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“**Interest Payment Date**,” when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

“**Judgment Currency**” has the meaning specified in [Section 1.16](#).

“**Legal Defeasance**” has the meaning specified in [Section 13.2](#).

“**mandatory sinking fund payment**” has the meaning specified in [Section 12.1](#).

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“**Maturity**,” when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption or otherwise.

“**Notice of Default**” means a written notice of the kind specified in [Section 5.1\(e\)](#).

“**Officer’s Certificate**” means, in the case of the Company, a certificate signed by the Chairman of the Board, the Chief Executive Officer, the Chief Financial Officer, the Chief Operating Officer, the President, any Vice President or any other duly authorized officer of the Company, or a person duly authorized by any of them, and delivered to the Trustee.

“**Opinion of Counsel**” means a written opinion of counsel, who may be an employee of or counsel for the Company and who shall be reasonably acceptable to the Trustee.

“**optional sinking fund payment**” has the meaning specified in [Section 12.1](#).

“**Original Issue Discount Security**” means any Security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to [Section 5.2](#).

“**Outstanding**,” when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except:

(a) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(b) Securities for whose payment or redemption money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities; *provided, however*, that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;

(c) Securities which have been paid pursuant to [Section 3.6](#) or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company; and

(d) Securities, except to the extent provided in [Section 13.2](#) and [Section 13.3](#), with respect to which the Company has effected Legal Defeasance or Covenant

provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder, (i) the principal amount of an Original Issue Discount Security that shall be deemed to be Outstanding shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon acceleration of the Maturity thereof on such date pursuant to Section 5.2, (ii) the principal amount of a Security denominated in one or more currencies or currency units other than U.S. dollars shall be the U.S. dollar equivalent of such currencies or currency units, determined in the manner provided as contemplated by Section 3.1 on the date of original issuance of such Security or by Section 1.15, if not otherwise so provided pursuant to Section 3.1, of the principal amount (or, in the case of an Original Issue Discount Security, the U.S. dollar equivalent (as so determined) on the date of original issuance of such Security of the amount determined as provided in clause (i) above) of such Security, and (iii) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities which the Trustee knows to be so owned shall be so disregarded. Securities so owned as described in clause (iii) of the immediately preceding sentence which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee's right to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

"Paying Agent" means any Person authorized by the Company to pay the principal of and any premium or interest on any Securities on behalf of the Company.

"Periodic Offering" means an offering of Securities of a series from time to time, the specific terms of which Securities, including, without limitation, the rate or rates of interest or formula for determining the rate or rates of interest thereon, if any, the Stated Maturity or Stated Maturities thereof, the original issue date or dates thereof, the redemption provisions, if any, with respect thereto, and any other terms specified as contemplated by Section 3.1 with respect thereto, are to be determined by the Company upon the issuance of such Securities.

"Person" means any individual, corporation, company, limited liability company, partnership, limited partnership, joint venture, association, joint-stock company, trust, other entity, unincorporated organization or government or any agency or political subdivision thereof.

"Place of Payment," when used with respect to the Securities of any series, means, unless otherwise specifically provided for with respect to such series as contemplated by Section 3.1, the office or agency of the Company in the City of New York and such other place or places where, subject to the provisions of Section 10.2, the principal of and any premium and interest on the Securities of that series are payable as contemplated by Section 3.1.

"Predecessor Security" of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 3.6 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security.

"Redemption Date," when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

Redemption Price," when used with respect to any Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture.

"Regular Record Date" for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by Section 3.1.

"Required Currency" has the meaning specified in Section 1.16.

"Responsible Officer" when used with respect to the Trustee, means any officer within the Corporate Trust Administration of the Trustee (or any successor group of the Trustee) or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

"SEC" means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this instrument such commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

"Securities" has the meaning stated in the first recital of this Indenture and more particularly means any Securities authenticated and delivered under this Indenture.

"Security Register" and **"Security Registrar"** have the respective meanings specified in Section 3.5.

"Significant Subsidiary" means any Subsidiary that would be a "Significant Subsidiary" of the Company within the meaning of Rule 1-02 under Regulation S-X promulgated by the SEC.

"Special Record Date" for the payment of any Defaulted Interest means a date fixed by the Trustee pursuant to Section 3.7.

"Stated Maturity," when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

"Subsidiary" means (a) a corporation more than 50% of the outstanding voting stock of which is owned, directly or indirectly, by the Company or by one or more other Subsidiaries, or by the Company and one or more other Subsidiaries or (b) any partnership or similar business organization more than 50% of the ownership interests having ordinary voting power of which shall at the time be so owned. For the purposes of this definition, **"voting stock"** means capital stock or equity interests which ordinarily have voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

"Trustee" means the Person named as the "Trustee" in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the

applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean the Trustee with respect to Securities of that series.

“**Trust Indenture Act**” means the Trust Indenture Act of 1939, as amended, as in force at the date as of which this instrument was executed, except as provided in Section 9.5; *provided, however*, that if the Trust Indenture Act of 1939 is amended after such date, “**Trust Indenture Act**” means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

“**U.S. Person**” shall have the meaning assigned to such term in Section 7701(a)(30) of the Code.

“**U.S. Government Obligations**” means securities which are (a) direct obligations of the United States for the payment of which its full faith and credit is pledged, or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States, each of which are not callable or redeemable at the option of the issuer thereof.

“**Vice President**,” when used with respect to the Company or the Trustee, means any vice president, regardless of whether designated by a number or a word or words added before or after the title “vice president.”

1.2 Incorporation by Reference of Trust Indenture Act. Whenever this Indenture refers to a provision of the Trust Indenture Act, the provision is incorporated by reference in and made a part of this Indenture. The following Trust Indenture Act terms used in this Indenture have the following meanings:

“**commission**” means the SEC.

“**indenture securities**” means the Securities.

“**indenture security holder**” means a Holder.

“**indenture to be qualified**” means this Indenture.

“**indenture trustee**” or “**institutional trustee**” means the Trustee.

“**obligor**” on the indenture securities means the Company or any other obligor on the indenture securities.

All terms used in this Indenture that are defined by the Trust Indenture Act, defined by a Trust Indenture Act reference to another statute or defined by an SEC rule under the Trust Indenture Act have the meanings so assigned to them.

1.3 Compliance Certificates and Opinions. Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officer’s Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished except as required under Section 314(c) of the Trust Indenture Act.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (except for certificates provided for in Section 10.5) shall include:

(a) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(c) a statement that, in the opinion of each such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether such covenant or condition has been complied with; and

(d) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

1.4 Form of Documents Delivered to Trustee. In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, counsel, unless such officer knows or, in the exercise of reasonable care, should know that the certificate or opinion or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such certificate or opinion of counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information with respect to such factual matters is in the possession of the Company unless such counsel knows that the certificate or opinion or representations with respect to such matters are erroneous.

Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

1.5 Acts of Holders: Record Dates.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed (either physically or by means of a facsimile or an electronic transmission, provided that such electronic transmission is transmitted through the facilities of a Depository) by such Holders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is

hereby expressly required, to the Company. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Section 315 of the Trust Indenture Act) conclusive in favor of the Trustee and the Company if made in the manner provided in this Section.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner which the Trustee deems sufficient.

(c) The ownership, principal amount and serial numbers of Securities held by any Person, and the date of commencement of such Person's holding of same, shall be proved by the Security Register.

(d) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, regardless of whether notation of such action is made upon such Security.

(e) Without limiting the foregoing, a Holder entitled to give or take any action hereunder with regard to any particular Security may do so with regard to all or any part of the principal amount of such Security or by one or more duly appointed agents each of which may do so pursuant to such appointment with regard to all or any different part of such principal amount.

(f) The Company may set any day as the record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to give or take any request, demand, authorization, direction, notice, consent, waiver or other Act provided or permitted by this Indenture to be given or taken by Holders of Securities of such series, but the Company shall have no obligation to do so. With regard to any record date set pursuant to this paragraph, the Holders of Outstanding Securities of the relevant series on such record date (or their duly appointed agents), and only such Persons, shall be entitled to give or take the relevant action, regardless of whether such Holders remain Holders after such record date.

1.6 Notices, Etc., to Trustee and Company.

(a) Any notice or communication by the Company or the Trustee to the others is duly given if in writing and delivered in Person or mailed by first class mail (registered or certified, return receipt requested), telecopier or overnight air courier guaranteeing next day delivery, to the others' address:

If to the Company:

Alto Ingredients, Inc.
1300 South Second Street
Pekin, IL 61554
Facsimile: (916) 446-3937
Attention: General Counsel

If to the Trustee:

[Trustee]

Facsimile: _____

(b) The Company or the Trustee, by notice to the others, may designate additional or different addresses for subsequent notices or communications.

(c) All notices and communications (other than those sent to Holders) shall be deemed to have been duly given: at the time delivered by hand, if personally delivered; three Business Days after being deposited in the mail, postage prepaid, if mailed; when receipt acknowledged, if telecopied; and the next Business Day after timely delivery to the courier, if sent by overnight air courier guaranteeing next day delivery.

1.7 Notice to Holders; Waiver. Where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder affected by such event, at his address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, regardless of whether such Holder actually receives such notice.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

1.8 Conflict with Trust Indenture Act. If any provision hereof limits, qualifies or conflicts with a provision of the Trust Indenture Act that is required under such Act to be a part of and govern this Indenture, the latter provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or excluded, as the case may be.

1.9 Effect of Headings and Table of Contents. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

1.10 Successors and Assigns. All covenants and agreements in this Indenture by the Company shall bind its successors and assigns, whether so expressed or not.

1.11 Separability Clause. In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

1.12 Benefits of Indenture. Nothing in this Indenture or in the Securities express or implied, shall give to any Person, other than the parties hereto and their successors hereunder and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

1.13 Governing Law. THIS INDENTURE AND THE SECURITIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

1.14 Legal Holidays. In any case where any Interest Payment Date, Redemption Date or Stated Maturity of any Security shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or of the Securities (other than a provision of the Securities of any series that specifically states that such provision shall apply in lieu of this Section 1.14)) payment of interest or principal and any premium need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or Redemption Date, or at the Stated Maturity, provided that no interest shall accrue for the period from and after such Interest Payment Date, Redemption Date or Stated Maturity, as the case may be.

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1.15 Securities in a Composite Currency, Currency Unit or Foreign Currency Unless otherwise specified in an Officer's Certificate delivered pursuant to Section 3.1 of this Indenture with respect to a particular series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all series or all series affected by a particular action at the time Outstanding and, at such time, there are Outstanding Securities of any series which are denominated in a coin, currency or currencies other than Dollars (including, but not limited to, any composite currency, currency units or Foreign Currency), then the principal amount of Securities of such series which shall be deemed to be Outstanding for the purpose of taking such action shall be that amount of Dollars that could be obtained for such amount at the Market Exchange Rate. For purposes of this Section 1.15, the term "**Market Exchange Rate**" shall mean the noon Dollar buying rate in The City of New York for cable transfers of such currency or currencies as published by the Federal Reserve Bank of New York, as of the most recent available date. If such Market Exchange Rate is not so available for any reason with respect to such currency, the Trustee shall use, in its sole discretion and without liability on its part, such quotation of the Federal Reserve Bank of New York as of the most recent available date, or quotations or rates of exchange from one or more major banks in The City of New York or in the country of issue of the currency in question, which for purposes of euros shall be Brussels, Belgium, or such other quotations or rates of exchange as the Trustee shall deem appropriate. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a series denominated in a currency other than Dollars in connection with any action taken by Holders of Securities pursuant to the terms of this Indenture.

All decisions and determinations of the Trustee regarding the Market Exchange Rate or any alternative determination provided for in the preceding paragraph shall be in its sole discretion and shall, in the absence of manifest error, be conclusive to the extent permitted by law for all purposes and irrevocably binding upon the Issuer and all Holders.

1.16 Payment in Required Currency; Judgment Currency. The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest on the Securities of any series (the "**Required Currency**") into a currency in which a judgment will be rendered (the "**Judgment Currency**"), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a Banking Day, then, to the extent permitted by applicable law, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the Banking Day next preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by any tender, or any recovery pursuant to any judgment (regardless of whether entered in accordance with subclause (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture.

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1.17 Language of Notices, Etc. Any request, demand, authorization, direction, notice, consent, waiver or Act required or permitted under this Indenture shall be in the English language, except that any published notice may be in an official language of the country of publication.

1.18 Incorporators, Shareholders, Officers and Directors of the Company Exempt from Individual Liability No recourse under or upon any obligation, covenant or agreement of or contained in this Indenture or of or contained in any Security or for any claim based thereon or otherwise in respect thereof, or in any Security or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, member, officer, manager or director, as such, past, present or future, of the Company or any successor Person, either directly or through the Company or any successor Person, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise, it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a part of the consideration for, the execution of this Indenture and the issue of the Securities.

ARTICLE TWO **SECURITY FORMS**

2.1 Forms Generally. The Securities of each series shall be in substantially the form set forth in this Article Two, or in such other form or forms as shall be established by or pursuant to a Board Resolution or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or as may, consistently herewith, be determined by the officers executing such Securities as evidenced by their execution thereof.

The definitive Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities, as evidenced by their execution thereof. If the form of Securities of any series is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by an authorized officer or other authorized person on behalf of the Company and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 3.3 for the authentication and delivery of such Securities.

The forms of Global Securities of any series shall have such provisions and legends as are customary for Securities of such series in global form, including without

2.2 Form of Face of Security. [If the Security is an Original Issue Discount Security, insert—FOR PURPOSES OF SECTION 1275 OF THE UNITED STATES INTERNAL REVENUE CODE OF 1986, AS AMENDED, THE AMOUNT OF THE ORIGINAL ISSUE DISCOUNT IS , THE ISSUE DATE IS , 20 [AND] [,] THE YIELD TO MATURITY IS [,] [AND THE ORIGINAL ISSUE DISCOUNT FOR THE SHORT ACCRUAL PERIOD IS AND THE METHOD USED TO DETERMINE THE YIELD THEREFOR IS]]

[Insert any other legend required by the Code or the regulations thereunder.]

[If a Global Security,—insert legend required by Section 2.4 of the Indenture] [If applicable, insert —UNLESS THIS SECURITY IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY SECURITY ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.]

ALTO INGREDIENTS, INC.

[TITLE OF SECURITY]

No _____

U.S. \$ _____

[CUSIP No.]

ALTO INGREDIENTS, INC., a company duly incorporated under the laws of the State of Delaware (herein called the “Company,” which term includes any successor or resulting Person under the Indenture hereinafter referred to), for value received, hereby promises to pay to _____, or registered assigns, the principal sum of _____ United States Dollars on _____ [If the Security is to bear interest prior to Maturity, insert—, and to pay interest thereon from _____ or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on _____ and _____ in each year, commencing _____, at the rate of _____% per annum, until the principal hereof is paid or made available for payment [if applicable, insert—, and at the rate of _____% per annum on any overdue principal and premium and on any installment of interest (to the extent that the payment of such interest shall be legally enforceable)]. The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the _____ or _____ (regardless of whether a Business Day), as the case may be, next preceding such Interest Payment Date. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Securities of this series may be listed, and upon such notice as may be required by such exchange, all as more fully provided in said Indenture].

[If the Security is not to bear interest prior to Maturity, insert—The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at Stated Maturity and in such case the overdue principal of this Security shall bear interest at the rate of _____% per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such default in payment to the date payment of such principal has been made or duly provided for. Interest on any overdue principal shall be payable on demand. Any such interest on any overdue principal that is not so paid on demand shall bear interest at the rate of _____% per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such demand for payment to the date payment of such interest has been made or duly provided for, and such interest shall also be payable on demand.]

[If a Global Security, insert—Payment of the principal of (and premium, if any) and [if applicable, insert—any such] interest on this Security will be made by transfer of immediately available funds to a bank account in _____ designated by the Holder in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts [state other currency].]

[If a Definitive Security, insert—Payment of the principal of (and premium, if any) and [if applicable, insert—any such] interest on this Security will be made at the office or agency of the Company maintained for that purpose in _____, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts] [state other currency] [or subject to any laws or regulations applicable thereto and to the right of the Company (as provided in the Indenture) to rescind the designation of any such Paying Agent, at the [main] offices of _____ in _____, or at such other offices or agencies as the Company may designate, by [United States Dollar] [state other currency] check drawn on, or transfer to a [United States Dollar] account maintained by the payee with, a bank in The City of New York (so long as the applicable Paying Agency has received proper transfer instructions in writing at least _____ days prior to the payment date)] [if applicable, insert—; provided, however, that payment of interest may be made at the option of the Company by [United States Dollar] [state other currency] check mailed to the addresses of the Persons entitled thereto as such addresses shall appear in the Security Register][or by transfer to a [United States Dollar] [state other currency] account maintained by the payee with a bank in The City of New York[state other Place of Payment] (so long as the applicable Paying Agent has received proper transfer instructions in writing by the record date prior to the applicable Interest Payment Date)].]

Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any

benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

ALTO INGREDIENTS, INC.

By: _____

2.3 **Form of Reverse of Security.** This Security is one of a duly authorized issue of senior securities of the Company (herein called the "Securities"), issued and to be issued in one or more series under an Indenture, dated as of _____, 20__ (herein called the "Indenture"), between the Company and U.S. Bank, National Association, as Trustee (herein called the "Trustee," which term includes any successor trustee under the Indenture), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement, of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. As provided in the Indenture, the Securities may be issued in one or more series, which different series may be issued in various aggregate principal amounts, may mature at different times, may bear interest, if any, at different rates, may be subject to different redemption provisions, if any, may be subject to different sinking, purchase or analogous funds, if any, may be subject to different covenants and Events of Default and may otherwise vary as in the Indenture provided or permitted. This Security is one of the series designated on the face hereof [, **limited in aggregate principal amount to \$ _____**].

This security is the general, unsecured, senior obligation of the Company.

[If applicable, insert **The Securities of this series are subject to redemption upon not less than _____ days' notice by mail, [if applicable, insert, (1) on _____ in any year commencing with the year _____ and ending with the year _____ through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2)]** at any time [on or after _____, 20__], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount): If redeemed [on or before _____, _____%, and if redeemed] during the 12-month period beginning _____ of the years indicated,

Year	Redemption Price	Year	Redemption Price
------	------------------	------	------------------

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and thereafter at a Redemption Price equal to _____% of the principal amount, together in the case of any such redemption [if applicable, insert—(whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant record dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert—**The Securities of this series are subject to redemption upon not less than _____ nor more than _____ days' notice by mail, (1) on _____ in any year commencing with the year _____ and ending with the year _____ through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at anytime [on or after _____],** as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning _____ of the years indicated,

Year	Redemption Price for Redemption Through Operation of the Sinking Fund	Redemption Price for Redemption Otherwise Than Through Operation of the Sinking Fund
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and thereafter at a Redemption Price equal to _____% of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant record dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert—**Notwithstanding the foregoing, the Company may not, prior to _____, redeem any Securities of this series as contemplated by [clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than _____% per annum.**]

[If applicable, insert—**The sinking fund for this series provides for the redemption on _____ in each year beginning with the year _____ and ending with the year _____ of [not less than] \$ _____ [("mandatory sinking fund") and not more than \$ _____] aggregate principal amount of Securities of this series. [Securities of this series acquired or redeemed by the Company otherwise than through [mandatory] sinking fund payments may be credited against subsequent [mandatory] sinking fund payments otherwise required to be made [If applicable, insert— in the inverse order in which they become due].**]

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[If the Securities are subject to redemption in part of any kind, insert—**In the event of redemption of this Security in part only, a new Security or Securities of this series and of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the cancellation hereof.**]

[If applicable, insert—**The Securities of this series are not redeemable prior to Stated Maturity.**]

[If the Security is not an Original Issue Discount Security, insert—**If an Event of Default with respect to Securities of this series shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.**]

[If the Security is an Original Issue Discount Security, insert—**If an Event of Default with respect to Securities of this series shall occur and be continuing, an amount of principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture. Such amount shall be equal to—insert formula for determining the amount. Upon payment (i) of the amount of principal so declared due and payable and (ii) of interest on any overdue**

principal and overdue interest (in each case to the extent that the payment of such interest shall be legally enforceable), all of the Company's obligations in respect of the payment of the principal of and interest, if any, on the Securities of this series shall terminate.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities of each series to be affected under the Indenture at any time by the Company and the Trustee with the consent of the Holders of a majority in principal amount of the Securities at the time Outstanding of each series to be affected. The Indenture also contains provisions permitting the Holders of specified percentages in principal amount of the Securities of each series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and of any Security issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, regardless of whether notation of such consent or waiver is made upon this Security.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of (and premium, if any) and interest on this Security at the times, place(s) and rate, and in the coin or currency, herein prescribed.

[If a Global Security, insert—This Global Security or portion hereof may not be exchanged for Definitive Securities of this series except in the limited circumstances provided in the Indenture. The holders of beneficial interests in this Global Security will not be entitled to receive physical delivery of Definitive Securities except as described in the Indenture and will not be considered the Holders thereof for any purpose under the Indenture.]

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[If a Definitive Security, insert—As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Security is registerable in the Security Register, upon surrender of this Security for registration of transfer at the office or agency of the Company in [if applicable, insert—any place where the principal of and any premium and interest on this Security are payable] [if applicable, insert—The City of New York [, or, subject to any laws or regulations applicable thereto and to the right of the Company (limited as provided in the Indenture) to rescind the designation of any such transfer agent, at the [main] offices of _____ in _____ or at such other offices or agencies as the Company may designate]], duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or his attorney duly authorized in writing, and thereupon one or more new Securities of this series and of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.]

The Securities of this series are issuable only in registered form without coupons in denominations of U.S. \$ _____ and any integral multiple thereof. As provided in the Indenture and subject to certain limitations therein set forth, Securities of this series are exchangeable for a like aggregate principal amount of Securities of this series and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, regardless of whether this Security be overdue, and none of the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

No recourse under or upon any obligation, covenant or agreement of or contained in the Indenture or of or contained in any Security, or for any claim based thereon or otherwise in respect thereof, or in any Security, or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, member, officer, manager or director, as such, past, present or future, of the Company or of any successor Person, either directly or through the Company or any successor Person, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment, penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released by the acceptance hereof and as a condition of, and as part of the consideration for, the Securities and the execution of the Indenture.

The Indenture provides that the Company (a) will be discharged from any and all obligations in respect of the Securities (except for certain obligations described in the Indenture), or (b) need not comply with certain restrictive covenants of the Indenture, in each case if the Company deposits, in trust, with the Trustee money or U.S. Government Obligations (or a combination thereof) which through the payment of interest thereon and principal thereof in accordance with their terms will provide money, in an amount sufficient to pay all the principal of and interest on the Securities, but such money need not be segregated from other funds except to the extent required by law.

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Except as otherwise defined herein, all terms used in this Security which are defined in the Indenture shall have the meanings assigned to them in the Indenture.

[If a Definitive Security, insert as a separate page—

FOR VALUE RECEIVED, the undersigned hereby sell(s), assign(s) and transfer(s) unto

(Please Print or Typewrite Name and Address of Assignee)

the within instrument of ALTO INGREDIENTS, INC. and does hereby irrevocably constitute and appoint _____ Attorney to transfer said instrument on the books of the within-named Company, with full power of substitution in the premises.

Please Insert Social Security or Other Identifying Number of Assignee:

Dated: _____

(Signature)

NOTICE: The signature to this assignment must correspond with the name as written upon the face of the within instrument in every particular, without alteration or enlargement or any change whatever.]

2.4 Global Securities. Every Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO

AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY MAY NOT BE TRANSFERRED TO, OR REGISTERED OR EXCHANGED FOR SECURITIES REGISTERED IN THE NAME OF, ANY PERSON OTHER THAN THE DEPOSITARY OR A NOMINEE THEREOF AND NO SUCH TRANSFER MAY BE REGISTERED, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE.

EVERY SECURITY AUTHENTICATED AND DELIVERED UPON REGISTRATION OF TRANSFER OF, OR IN EXCHANGE FOR OR IN LIEU OF, THIS SECURITY SHALL BE A GLOBAL SECURITY SUBJECT TO THE FOREGOING, EXCEPT IN SUCH LIMITED CIRCUMSTANCES.

If Securities of a series are issuable in whole or in part in the form of one or more Global Securities, as specified as contemplated by Section 3.1, then, notwithstanding clause (i) of Section 3.1 and the provisions of Section 3.2, any Global Security shall represent such of the Outstanding Securities of such series as shall be specified therein and may provide that it shall represent the aggregate amount of Outstanding Securities from time to time endorsed thereon and that the aggregate amount of Outstanding Securities represented thereby may from time to time be reduced or increased, as the case may be, to reflect exchanges. Any endorsement of a Global Security to reflect the amount, or any reduction or increase in the amount, of Outstanding Securities represented thereby shall be made in such manner and upon instructions given by such Person or Persons as shall be specified therein or in a Company Order. Subject to the provisions of Section 3.3, Section 3.4 and Section 3.5, the Trustee shall deliver and redeliver any Global Security in the manner and upon instructions given by the Person or Persons specified therein or in the applicable Company Order. Any instructions by the Company with respect to endorsement or delivery or redelivery of a Global Security shall be in a Company Order (which need not comply with Section 1.3 and need not be accompanied by an Opinion of Counsel).

The provisions of the last sentence of Section 3.3 shall apply to any Security represented by a Global Security if such Security was never issued and sold by the Company and the Company delivers to the Trustee the Global Security together with a Company Order (which need not comply with Section 1.3 and need not be accompanied by an Opinion of Counsel) with regard to the reduction or increase, as the case may be, in the principal amount of Securities represented thereby, together with the written statement contemplated by the last sentence of Section 3.3.

2.5 Form of Trustee's Certificate of Authentication. The Trustee's certificate(s) of authentication shall be in substantially the following form:

This is one of the Securities of the series designated [insert title of applicable series] referred to in the within-mentioned Indenture.

as Trustee

By: _____
As Authenticating Officer

ARTICLE THREE THE SECURITIES

3.1 Amount Unlimited; Issuable in Series. The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution, and set forth, or determined in the manner provided, in an Officer's Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series,

(a) the title of the Securities of the series (which shall distinguish the Securities of the series from all other Securities and which may be part of a series of Securities previously issued);

(b) any limit upon the aggregate principal amount of the Securities of the series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 3.4, Section 3.5, Section 3.6, Section 9.6 or Section 11.7 and except for any Securities which, pursuant to Section 3.3, are deemed never to have been authenticated and delivered hereunder);

(c) the Person to whom any interest on a Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest;

(d) the date or dates on which the principal of the Securities of the series is payable or the method of determination thereof;

(e) the rate or rates at which the Securities of the series shall bear interest, if any, or the formula, method or provision pursuant to which such rate or rates are determined, the date or dates from which such interest shall accrue or the method of determination thereof, the Interest Payment Dates on which such interest shall be payable and the Regular Record Date for the interest payable on any Interest Payment Date;

(f) the place or places where, subject to the provisions of Section 10.2, the principal of and any premium and interest on Securities of the series shall be payable, Securities of the series may be surrendered for registration of transfer, Securities of the series may be surrendered for exchange and notices, and demands to or upon the Company in respect of the Securities of the series and this Indenture may be served;

(g) the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Company;

(h) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

(i) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which Securities of the series shall be issuable;

(j) whether payment of principal of and premium, if any, and interest, if any, on the Securities of the series shall be without deduction for taxes, assessments or

(k) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.2;

(l) if the amount of payments of principal of and any premium or interest on the Securities of the series may be determined with reference to an index, the manner in which such amounts shall be determined;

(m) if and as applicable, that the Securities of the series shall be issuable in whole or in part in the form of one or more Global Securities and, in such case, the Depository or Depositaries for such Global Security or Global Securities and any circumstances other than those set forth in Section 3.5 in which any such Global Security may be transferred to, and registered and exchanged for Securities registered in the name of, a Person other than the Depository for such Global Security or a nominee thereof and in which any such transfer may be registered;

(n) any deletions from, modifications of or additions to the Events of Default set forth in Section 5.1 or the covenants of the Company set forth in Article Ten with respect to the Securities of such series;

(o) whether and under what circumstances the Company will pay additional amounts on the Securities of the series held by a Person who is not a U.S. Person in respect of any tax, assessment or governmental charge withheld or deducted and, if so, whether the Company will have the option to redeem the Securities of the series rather than pay such additional amounts;

(p) if the Securities of the series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, the form and terms of such certificates, documents or conditions;

(q) if the Securities of the series are to be convertible into or exchangeable for any other security or property of the Company, including, without limitation, securities of another Person held by the Company or its Affiliates and, if so, the terms thereof;

(r) if other than as provided in Section 13.2 and Section 13.3, the means of Legal Defeasance or Covenant Defeasance as may be specified for the Securities of the series;

(s) if other than the Trustee, the identity of the initial Security Registrar and any initial Paying Agent; and

(t) any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture).

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to the Board Resolution referred to above and (subject to Section 3.3) set forth, or determined in the manner provided, in the Officer's Certificate referred to above or in any such indenture supplemental hereto.

All Securities of any one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the Holders, for increases in the aggregate principal amount of such series of Securities and issuances of additional Securities of such series or for the establishment of additional terms with respect to the Securities of such series.

If any of the terms of the series are established by action taken by or pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by an authorized officer or other authorized person on behalf of the Company and delivered to the Trustee at or prior to the delivery of the Officer's Certificate setting forth, or providing the manner for determining, the terms of the series.

With respect to Securities of a series subject to a Periodic Offering, such Board Resolution or Officer's Certificate may provide general terms for Securities of such series and provide either that the specific terms of particular Securities of such series shall be specified in a Company Order or that such terms shall be determined by the Company or one or more agents thereof designated in an Officer's Certificate, in accordance with a Company Order.

3.2 Denominations. The Securities of each series shall be issuable in registered form without coupons in such denominations as shall be specified as contemplated by Section 3.1. In the absence of any such provisions with respect to the Securities of any series, the Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof.

3.3 Execution, Authentication, Delivery and Dating. The Securities shall be executed on behalf of the Company by its Chairman of the Board, its Chief Executive Officer, its President, its Chief Financial Officer or any of its Vice Presidents and need not be attested. The signature of any of these officers on the Securities may be manual or facsimile.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities, and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities; provided, however, that in the case of Securities offered in a Periodic Offering, the Trustee shall authenticate and deliver such Securities from time to time in accordance with such other procedures (including, without limitation, the receipt by the Trustee of oral or electronic instructions from the Company or its duly authorized agents, thereafter promptly confirmed in writing) acceptable to the Trustee as may be specified by or pursuant to a Company Order delivered to the Trustee prior to the time of the first authentication of Securities of such series. If the forms or terms of the Securities of the series have been established in or pursuant to one or more Board Resolutions as permitted by Section 2.1 and Section 3.1, in authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive such documents as it may reasonably request. The Trustee shall also be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, an Opinion of Counsel stating,

(a) if the form or forms of such Securities has been established in or pursuant to a Board Resolution as permitted by Section 2.1, that each such form has been established in conformity with the provisions of this Indenture;

(b) if the terms of such Securities have been, or in the case of Securities of a series offered in a Periodic Offering will be, established in or pursuant to a Board Resolution as permitted by Section 3.1, that such terms have been, or in the case of Securities of a series offered in a Periodic Offering will be, established in conformity with the provisions of this Indenture, subject, in the case of Securities of a series offered in a Periodic Offering, to any conditions specified in such Opinion of Counsel; and

(c) that such Securities when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions and assumptions specified in such Opinion of Counsel, will constitute valid and legally binding obligations of the Company enforceable in accordance with their terms, subject to the following limitations: (i) bankruptcy, insolvency, moratorium, reorganization, liquidation, fraudulent conveyance or transfer and other similar laws of general applicability relating to or affecting the enforcement of creditors' rights, or to general equity principles, (ii) the availability of equitable remedies being subject to the discretion of the court to which application therefor is made; and (iii) such other usual and customary matters as shall be specified in such Opinion of Counsel.

If such form or forms or terms have been so established, the Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 3.1 and of the preceding paragraph, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver the Officer's Certificate otherwise required pursuant to Section 3.1 or the Company Order and Opinion of Counsel otherwise required pursuant to such preceding paragraph at or prior to the time of authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued.

With respect to Securities of a series offered in a Periodic Offering, the Trustee may rely, as to the authorization by the Company of any of such Securities, on the form or forms and terms thereof and the legality, validity, binding effect and enforceability thereof, upon the Opinion of Counsel and the other documents delivered pursuant to Section 2.1 and Section 3.1 and this Section, as applicable, in connection with the first authentication of Securities of such series.

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Each Security shall be dated the date of its authentication.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein executed by the Trustee by manual signature of an authorized officer, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.9 for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

3.4 Temporary Securities. Pending the preparation of Definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially of the tenor of the Definitive Securities in lieu of which they are issued and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as evidenced by their execution of such Securities.

If temporary Securities of any series are issued, the Company will cause Definitive Securities of that series to be prepared without unreasonable delay. After the preparation of Definitive Securities of such series, the temporary Securities of such series shall be exchangeable for Definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of Definitive Securities of the same series and tenor of authorized denominations. Until so exchanged the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as Definitive Securities of such series.

3.5 Registration, Registration of Transfer and Exchange. The Company shall cause to be kept at the office or agency of the Company in the Borough of Manhattan, the City of New York or in any other office or agency of the Company in a Place of Payment required by Section 10.2 a register (the register maintained in such office being herein sometimes referred to as the "**Security Register**") in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities and of transfers of Securities. The Trustee is hereby appointed as the initial "**Security Registrar**" for the purpose of registering Securities and transfers of Securities as herein provided, and its corporate trust office in New York City, which, at the date hereof, is located at [____], New York, New York [____], is the initial office or agency in the Borough of Manhattan where the Securities Register will be maintained. The Company may at any time replace such Security Registrar, change such office or agency or act as its own Security Registrar. The Company will give prompt written notice to the Trustee of any change of the Security Registrar or of the location of such office or agency.

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Upon surrender for registration of transfer of any Security of any series at the office or agency maintained pursuant to Section 10.2 for such purpose, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Securities of the same series and tenor, of any authorized denominations and of a like aggregate principal amount.

At the option of the Holder, Securities of any series (except a Global Security) may be exchanged for other Securities of the same series and tenor, of any authorized denominations and of a like aggregate principal amount, upon surrender of the Securities to be exchanged at such office or agency. Whenever any Securities are so surrendered for exchange, the Company shall execute and the Trustee shall authenticate and deliver the Securities, which the Holder making the exchange is entitled to receive.

All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed, by the Holder thereof or his attorney duly

authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.4, Section 9.6 or Section 11.7 not involving any transfer.

The Company shall not be required (a) to issue, register the transfer of or exchange Securities of any series during a period beginning at the opening of business 15 days before the day of the mailing of a notice of redemption of Securities of that series selected for redemption under Section 11.3 and ending at the close of business on the day of such mailing, or (b) to register the transfer of or exchange any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security being redeemed in part.

Notwithstanding any other provisions of this Indenture and except as otherwise specified with respect to any particular series of Securities as contemplated by Section 3.1, a Global Security representing all or a portion of the Securities of a series may not be transferred, except as a whole by the Depository for such series to a nominee of such Depository or by a nominee of such Depository to such Depository or another nominee of such Depository or by such Depository or any such nominee to a successor Depository for such series or a nominee of such successor Depository. Every Security authenticated and delivered upon registration of, transfer of, or in exchange for or in lieu of, a Global Security shall be a Global Security except as provided in the two paragraphs immediately following.

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If at any time the Depository for any Securities of a series represented by one or more Global Securities notifies the Company that it is unwilling or unable to continue as Depository for such Securities or if at any time the Depository for such Securities shall no longer be eligible to continue as Depository under Section 3.1 or ceases to be a clearing agency registered under the Exchange Act, the Company shall appoint a successor Depository with respect to such Securities. If a successor Depository for such Securities is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such ineligibility, the Company's election pursuant to Section 3.1 that such Securities be represented by one or more Global Securities shall no longer be effective and the Company will execute and the Trustee, upon receipt of a Company Order for the authentication and delivery of Definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form without coupons, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such Securities in exchange for such Global Security or Securities registered in the names of such Persons as the Depository shall direct.

The Company may at any time and in its sole discretion determine that the Securities of any series issued in the form of one or more Global Securities shall no longer be represented by a Global Security or Securities. In such event, the Company will execute and the Trustee, upon receipt of a Company Order for the authentication and delivery of the Definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form without coupons, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such Securities in exchange for such Global Security or Securities registered in the names of such Persons as the Depository shall direct.

If specified by the Company pursuant to Section 3.1 with respect to Securities represented by a Global Security, the Depository for such Global Security may surrender such Global Security in exchange in whole or in part for Securities of the same series and tenor in definitive registered form on such terms as are acceptable to the Company, the Trustee and such Depository. Thereupon, the Company shall execute, and the Trustee, upon receipt of a Company Order for the authentication and delivery of Securities in definitive registered form, shall authenticate and deliver, without service charge,

(a) to the Person specified by such Depository, a new Security or Securities of the same series and tenor, of any authorized denominations as requested by such Person, in an aggregate principal amount equal to and in exchange for such Person's beneficial interest in the Global Security; and

(b) to such Depository, a new Global Security in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Security and the aggregate principal amount of Securities authenticated and delivered pursuant to clause (a) above.

Every Person who takes or holds any beneficial interest in a Global Security agrees that:

(a) the Company and the Trustee may deal with the Depository as sole owner of the Global Security and as the authorized representative of such Person;

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(b) such Person's rights in the Global Security shall be exercised only through the Depository and shall be limited to those established by law and agreement between such Person and the Depository and/or direct and indirect participants of the Depository;

(c) the Depository and its participants make book-entry transfers of beneficial ownership among, and receive and transmit distributions of principal and interest on the Global Securities to, such Persons in accordance with their own procedures; and

(d) none of the Company, the Trustee, nor any agent of any of them will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

3.6 Mutilated, Destroyed, Lost and Stolen Securities. If any mutilated Security is surrendered to the Trustee, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them and any agent of any of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (a) evidence to their satisfaction of the destruction, loss or theft of any Security and (b) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a bona fide purchaser, the Company shall execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual

obligation of the Company regardless of whether the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

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3.7 Payment of Interest; Interest Rights Preserved. Except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, interest on any Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest.

Any interest on any Security of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called **Defaulted Interest**) shall forthwith cease to be payable to the Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (a) or (b) below:

(a) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon, the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Securities of such series at his address as it appears in the Security Register, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (b).

(b) The Company may make payment of any Defaulted Interest on the Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

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3.8 Persons Deemed Owners. Except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, prior to due presentment of a Security for registration of transfer, the Company, the Trustee and any agent thereof may treat the Person in whose name such Security is registered as the owner of such Security for the purpose of receiving payment of principal of and any premium and (subject to Section 3.5 and Section 3.7) any interest on such Security and for all other purposes whatsoever, regardless of whether such Security be overdue, and none of the Company, the Trustee nor any agent of any of them shall be affected by notice to the contrary.

No holder of any beneficial interest in any Global Security held on its behalf by a Depository shall have any rights under this Indenture with respect to such Global Security, and such Depository may be treated by the Company, the Trustee and any agent of thereof as the owner of such Global Security for all purposes whatsoever.

3.9 Cancellation. All Securities surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee and shall be promptly canceled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly canceled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities canceled as provided in this Section, except as expressly permitted by this Indenture. All canceled Securities held by the Trustee shall be disposed of in accordance with its customary practices, and the Trustee shall thereafter deliver to the Company a certificate with respect to such disposition from time to time upon written request.

3.10 Computation of Interest. Except as otherwise specified as contemplated by Section 3.1 for Securities of any series, interest on the Securities of each series shall be computed on the basis of a year of twelve 30-day months.

3.11 CUSIP or CINS Numbers. The Company in issuing the Securities may use "CUSIP" or "CINS" numbers (if then generally in use, and in addition to the other identification numbers printed on the Securities), and, if so, the Trustee shall use "CUSIP" or "CINS" numbers in notices of redemption as a convenience to Holders; provided, however, that any such notice may state that no representation is made as to the correctness of such "CUSIP" or "CINS" numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such "CUSIP" or "CINS" numbers.

ARTICLE FOUR **SATISFACTION AND DISCHARGE**

4.1 Satisfaction and Discharge of Indenture. This Indenture shall cease to be of further effect and will be discharged with respect to the Securities of any series (except as to any surviving rights of registration of transfer or exchange of Securities and certain rights of the Trustee, in each case, herein expressly provided for), and the Trustee, upon Company Request and at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture with respect to such Securities, when:

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(a) either

(i) all such Securities theretofore authenticated and delivered (other than (A) such Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 3.6, and (B) such Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 10.3) have been delivered to the Trustee for cancellation; or

(ii) all such Securities not theretofore delivered to the Trustee for cancellation

(A) have become due and payable, or

(B) will become due and payable at their Stated Maturity within one year, or

(C) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (A), (B) or (C) above, has deposited or caused to be deposited with the Trustee as trust funds in trust for such purpose an amount sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal (and premium, if any) and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be, together with instructions from the Company irrevocably directing the Trustee to apply such funds to the payment thereof at maturity or redemption, as the case may be;

(b) the Company has paid or caused to be paid all other sums payable hereunder by the Company with respect to such Securities; and

(c) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, which, taken together, state that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture with respect to such Securities have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture with respect to the Securities of any series, (x) the obligations of the Company to the Trustee under Section 6.7, the obligations of the Trustee to any Authenticating Agent under Section 6.14 and the right of the Trustee to resign under Section 6.10 shall survive, and (y) if money shall have been deposited with the Trustee pursuant to clause (a) of this Section, the obligations of the Company and the Trustee under Section 4.2, Section 6.6 and Section 10.2 and the last paragraph of Section 10.3 shall survive.

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4.2 Application of Trust Money. Subject to the provisions of the last paragraph of Section 10.3, all money deposited with the Trustee pursuant to Section 4.1 shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and any premium and interest for whose payment such money has been deposited with the Trustee.

ARTICLE FIVE REMEDIES

5.1 Events of Default. "Event of Default," wherever used herein with respect to Securities of any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

(a) default in the payment of any interest upon any Security of that series when it becomes due and payable, and continuance of such default for a period of 30 days; or

(b) default in the payment of the principal of (or premium, if any, on) any Security of that series at its Maturity; or

(c) default in the deposit of any sinking fund payment when due; or

(d) default in the performance, or breach, of the covenant set forth in Section 8.1; or

(e) default in the performance, or breach, of any covenant in this Indenture (other than the covenant in Section 8.1 or any other covenant a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of series of Securities other than that series), and continuance of such default or breach for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a "Notice of Default" hereunder; or

(f) the Company or any Significant Subsidiary pursuant to or within the meaning of any Bankruptcy Law (i) commences a voluntary case or proceeding, (ii) consents to the entry of any order for relief against it in an involuntary case or proceeding, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property, (iv) makes a general assignment for the benefit of its creditors, (v) consents to or acquiesces in the institution of a bankruptcy or an insolvency proceeding against it, (vi) takes any corporate action to authorize or effect any of the foregoing, or (vii) takes any comparable action under any foreign laws relating to insolvency; or

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(g) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (i) is for relief against the Company or any Significant Subsidiary in an involuntary case, (ii) appoints a Custodian of the Company or any Significant Subsidiary for all or substantially all of its property, or (iii) orders the liquidation or winding up of the Company or any Significant Subsidiary; and the order or decree remains unstayed and in effect for 30 consecutive days; or

(h) any other Event of Default provided with respect to Securities of that series in accordance with Section 3.1.

5.2 Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to Securities of any series at the time Outstanding occurs and is continuing, then in every such case the Trustee or the Holders of at least 25% in aggregate principal amount of the Outstanding Securities of that series may declare the principal

amount (or, if the Securities of that series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of that series), together with any accrued and unpaid interest thereon, of all of the Securities of that series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by Holders), and upon any such declaration such principal amount (or specified amount), together with any accrued and unpaid interest thereon, shall become immediately due and payable. Notwithstanding the foregoing, if an Event of Default specified in clause (f) or (g) of Section 5.1 occurs, the Securities of any series at the time Outstanding shall be due and payable immediately without further action or notice.

At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article Five provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if:

- (a) the Company has paid or deposited with the Trustee a sum sufficient to pay:
 - (i) all overdue interest on all Securities of that series,
 - (ii) the principal of (and premium, if any, on) any Securities of that series which have become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in such Securities,
 - (iii) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in such Securities, and

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(iv) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(b) all Events of Default with respect to Securities of that series, other than the non-payment of the principal of Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 5.13.

No such rescission shall affect any subsequent default or impair any right consequent thereon.

5.3 Collection of Indebtedness and Suits for Enforcement by Trustee The Company covenants that if:

- (a) default is made in the payment of any installment of interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days, or
- (b) default is made in the payment of the principal of (or premium, if any, on) any Security at the Maturity thereof,

the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and any premium and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and any premium and on any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

5.4 Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities, their property or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

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(a) to file and prove a claim for the whole amount of principal (and premium, if any) and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, if the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.7.

No provision of this Indenture shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, compromise, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding; provided, however, that the Trustee may, on behalf of the Holders, vote for the election of a trustee in bankruptcy or similar official and be a member of a creditors' or other similar committee.

5.5 Trustee May Enforce Claims Without Possession of Securities. All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

5.6 Application of Money Collected. Any money collected by the Trustee pursuant to this Article Five shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or any premium or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under Section 6.7;

SECOND: To the payment of the amounts then due and unpaid for principal of and any premium and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and any premium and interest, respectively; and

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THIRD: The balance, if any, to the Company.

5.7 Limitation on Suits. No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

(a) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;

(b) the Holders of not less than 25% in principal amount of the Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(c) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;

(d) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(e) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

5.8 Unconditional Right of Holders to Receive Principal, Premium and Interest. Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and any premium and (subject to Section 3.5 and Section 3.7) interest on such Security on the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on the Redemption Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

5.9 Restoration of Rights and Remedies. If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

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5.10 Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.6, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

5.11 Delay or Omission Not Waiver. To fullest extent permitted by applicable law, no delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article Five or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

5.12 Control by Holders. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such series; provided, however, that:

(a) such direction shall not be in conflict with any rule of law or with this Indenture;

(b) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction; and

(c) subject to the provisions of Section 6.1, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall determine that the proceeding so directed would involve the Trustee in personal liability.

5.13 Waiver of Past Defaults. By written notice to the Company and the Trustee, the Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series waive any past default hereunder with respect to such series and its consequences, except:

(a) a continuing default in the payment of the principal of or any premium or interest on any Security of such series, or

(b) a default in respect of a covenant or provision hereof which under Article Nine cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture, but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

5.14 Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant, other than the Trustee, in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section 5.14 shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Outstanding Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security on or after the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date).

5.15 Waiver of Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

ARTICLE SIX **THE TRUSTEE**

6.1 Certain Duties and Responsibilities.

(a) Except during the continuance of an Event of Default,

(i) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and as are provided by the Trust Indenture Act, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine whether they conform to the requirements of this Indenture.

(b) In case an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that

(i) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Securities of any series, given pursuant to Section 5.12, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such series; and

(iv) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

(d) Regardless of whether therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

6.2 Notice of Defaults. Within 90 days after the occurrence of any Default hereunder with respect to the Securities of any series, the Trustee shall transmit by mail to all Holders of Securities of such series, as their names and addresses appear in the Security Register, notice of such Default hereunder known to the Trustee, unless such Default shall have been cured or waived; *provided, however*, that, except in the case of a Default in the payment of the principal of or any premium or interest on any Security of such series or in the payment of any sinking fund installment with respect to Securities of such series, the Trustee may withhold from Holders of Securities notice of any continuing Default or Event of Default if the Trustee in good faith determines that the withholding of such notice is in the interest of the Holders of Securities of such series; and, *provided, further*, that in the case of any Default of the character specified in Section 5.1(c) with respect to Securities of such series, no such notice to Holders shall be given until at least 90 days after the occurrence thereof and that in the case of any Default of the character specified in Section 5.1(e) with respect to Securities of such series, no such notice to Holders shall be given until at least 180 days after the occurrence thereof.

6.3 Certain Rights of Trustee. Subject to the provisions of Section 6.1:

(a) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security to the Trustee for authentication and delivery pursuant to Section 3.3, which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(c) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) shall be entitled to receive and may, in the absence of bad faith on its part, rely upon an Officer's Certificate;

(d) the Trustee may consult with counsel and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

(e) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(f) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney;

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder and shall not be responsible for the supervision of officers and employees of such agents or attorneys;

(h) the Trustee may request that the Company deliver an Officer's Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officer's Certificate may be signed by any person authorized to sign an Officer's Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded;

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(i) the Trustee shall be entitled to the rights and protections afforded to the Trustee pursuant to this Article Six in acting as a Paying Agent or Security Registrar hereunder; and

(j) the Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the Notes and this Indenture.

6.4 Not Responsible for Recitals or Issuance of Securities. The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company and the Trustee or any Authenticating Agent assumes no responsibility for their correctness. Neither the Trustee nor any Authenticating Agent makes any representations as to the validity or sufficiency of this Indenture or of the Securities. The Trustee or any Authenticating Agent shall not be accountable for the use or application by the Company of Securities or the proceeds thereof.

6.5 May Hold Securities. The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other agent of the Company in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to Sections 310(b) and 311 of the Trust Indenture Act and Section 6.8, Section 6.9 and Section 6.13, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other agent.

6.6 Money Held in Trust. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed in writing with the Company.

6.7 Compensation and Reimbursement. The Company agrees:

(a) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);

(b) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and

(c) to indemnify each of the Trustee and its officers, directors, agents and employees for, and to hold it harmless against, any loss, liability or expense incurred without negligence or willful misconduct on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

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As security for the performance of the obligations of the Company under this Section the Trustee shall have a lien prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of (and premium, if any) or interest on particular Securities.

Without limiting any rights available to the Trustee under applicable law, when the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 5.1(f) or Section 5.1(g), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services of the Trustee are intended to constitute expenses of administration under any applicable Bankruptcy Law.

The provisions of this Section 6.7 shall survive the satisfaction and discharge of this Indenture and the Legal Defeatance of the Securities.

6.8 Disqualification; Conflicting Interests. Reference is made to Section 310(b) of the Trust Indenture Act. There shall be excluded from the operation of Section 310(b)(1) of the Trust Indenture Act this Indenture with respect to the Securities of more than one series.

6.9 Corporate Trustee Required; Eligibility. There shall at all times be a Trustee hereunder which shall be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus required by the Trust Indenture Act, subject to supervision or examination by Federal or State authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Trustee shall not be an obligor upon the Securities or an Affiliate thereof. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article Six.

6.10 Resignation and Removal; Appointment of Successor.

(a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 6.11.

(b) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 6.11 shall not have been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

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(c) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series, delivered to the Trustee and to the Company.

(d) If at any time:

(i) the Trustee shall fail to comply with Section 310(b) of the Trust Indenture Act after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Security for at least six months, or

(ii) the Trustee shall cease to be eligible under Section 6.9 and shall fail to resign after written request therefor by the Company or by any such Holder, or

(iii) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, (A) the Company by a Board Resolution may remove the Trustee with respect to all Securities, or (B) subject to Section 5.14, any Holder who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of Section 6.11. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 6.11, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders and accepted appointment in the manner required by Section 6.11, any Holder who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

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(f) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series to all Holders of Securities of such series in the manner provided in Section 1.7. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

6.11 Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (ii) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights,

powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

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(c) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article and the Trust Indenture Act.

6.12 Merger, Conversion, Consolidation or Succession to Business Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article Six, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

6.13 Preferential Collection of Claims Against Company. Reference is made to Section 311 of the Trust Indenture Act. For purposes of Section 311(b) of the Trust Indenture Act,

(a) the term “**cash transaction**” means any transaction in which full payment for goods or securities sold is made within seven days after delivery of the goods or securities in currency or in checks or other orders drawn upon banks or bankers and payable upon demand;

(b) the term “**self-liquidating paper**” means any draft, bill of exchange, acceptance or obligation which is made, drawn, negotiated or incurred by the Company for the purpose of financing the purchase, processing, manufacturing, shipment, storage or sale of goods, wares or merchandise and which is secured by documents evidencing title to, possession of, or a lien upon, the goods, wares or merchandise or the receivables or proceeds arising from the sale of the goods, wares or merchandise previously constituting the security, provided the security is received by the Trustee simultaneously with the creation of the creditor relationship with the Company arising from the making, drawing, negotiating or incurring of the draft, bill of exchange, acceptance or obligation.

6.14 Appointment of Authenticating Agent. The Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, registration of transfer or partial redemption thereof or pursuant to Section 3.6, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee’s certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or State authority. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

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Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to all or substantially all of the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall mail written notice of such appointment by first-class mail, postage prepaid, to all Holders of Securities of the series with respect to which such Authenticating Agent will serve, as their names and addresses appear in the Security Register. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

Except with respect to an Authenticating Agent appointed at the request of the Company, the Trustee agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section 6.14, and the Trustee shall be entitled to be reimbursed by the Company for such payments, subject to the provisions of Section 6.7.

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If an appointment with respect to one or more series is made pursuant to this Section 6.14, the Securities of such series may have endorsed thereon, in addition to the Trustee’s certificate of authentication, an alternate certificate of authentication in the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

As Trustee

By: _____
As Authenticating Agent

By: _____
As Authenticating Officer

ARTICLE SEVEN
HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

7.1 Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee:

- (a) semi-annually, not more than 15 days after each Regular Record Date for a series of Securities, a list for such series of Securities, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Securities of such series as of such Regular Record Date, and
- (b) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished; provided, however, that if and so long as the Trustee shall be the Security Registrar, no such list need be furnished with respect to such series of Securities.

7.2 Preservation of Information; Communications to Holders.

(a) The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders contained in the most recent list furnished to the Trustee as provided in Section 7.1 and the names and addresses of Holders received by the Trustee in its capacity as Security Registrar. The Trustee may destroy any list furnished to it as provided in Section 7.1 upon receipt of a new list so furnished.

(b) If three or more Holders (herein referred to as "applicants") apply in writing to the Trustee, and furnish to the Trustee reasonable proof that each such applicant has owned a Security for a period of at least six months preceding the date of such application, and such application states that the applicants desire to communicate with other Holders with respect to their rights under this Indenture or under the Securities and is accompanied by a copy of the form of proxy or other communication which such applicants propose to transmit, then the Trustee shall, within five business days after the receipt of such application, at its election, either

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(i) afford such applicants access to the information preserved at the time by the Trustee in accordance with Section 7.2(a), or

(ii) inform such applicants as to the approximate number of Holders whose names and addresses appear in the information preserved at the time by the Trustee in accordance with Section 7.2(a), and as to the approximate cost of mailing to such Holders the form of proxy or other communication, if any, specified in such application.

If the Trustee shall elect not to afford such applicants access to such information, the Trustee shall, upon the written request of such applicants, mail to each Holder whose name and address appear in the information preserved at the time by the Trustee in accordance with Section 7.2(a) a copy of the form of proxy or other communication which is specified in such request, with reasonable promptness after a tender to the Trustee of the material to be mailed and of payment, or provision for the payment, of the reasonable expenses of mailing, unless within five days after such tender the Trustee shall mail to such applicants and file with the SEC, together with a copy of the material to be mailed, a written statement to the effect that, in the opinion of the Trustee, such mailing would be contrary to the best interest of the Holders or would be in violation of applicable law. Such written statement shall specify the basis of such opinion. If the SEC, after opportunity for a hearing upon the objections specified in the written statement so filed, shall enter an order refusing to sustain any of such objections or if, after the entry of an order sustaining one or more of such objections, the SEC shall find, after notice and opportunity for hearing, that all the objections so sustained have been met and shall enter an order so declaring, the Trustee shall mail copies of such material to all such Holders with reasonable promptness after the entry of such order and the renewal of such tender; otherwise the Trustee shall be relieved of any obligation or duty to such applicants respecting their application.

(c) Every Holder of Securities, by receiving and holding the same, agrees with the Company and the Trustee that none of the Company nor the Trustee nor any agent of any of them shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with Section 7.2(b), regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 7.2(b).

7.3 Reports by Trustee. Any Trustee's report required pursuant to Section 313(a) of the Trust Indenture Act shall be dated as of May 15, and shall be transmitted within 60 days after May 15 of each year (but in all events at intervals of not more than 12 months), commencing with the year 20__, by mail to all Holders, as their names and addresses appear in the Security Register. A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange upon which any Securities are listed, with the SEC and with the Company. The Company will notify the Trustee when any Securities are listed on any stock exchange.

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7.4 Reports by Company. The Company shall:

(a) file with the Trustee, within 15 days after the Company files the same with the SEC, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) which the Company may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of said Sections, then it shall file with the Trustee and the SEC, in accordance with rules and regulations prescribed from time to time by the SEC, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations;

(b) file with the Trustee and the SEC, in accordance with rules and regulations prescribed from time to time by the SEC, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations; and

(c) transmit by mail to all Holders, as their names and addresses appear in the Security Register, within 30 days after the filing thereof with the Trustee, such summaries of any information, documents and reports required to be filed by the Company pursuant to clauses (a) and (b) of this Section as may be required by rules and

regulations prescribed from time to time by the SEC.

ARTICLE EIGHT
CONSOLIDATION, AMALGAMATION, MERGER AND SALE

8.1 Company May Consolidate, Etc., Only on Certain Terms. The Company shall not consolidate or merge with or into any other Person or sell, convey, transfer, lease or otherwise dispose of all or substantially all of the properties and assets of the Company on a consolidated basis to any other Person, and shall not permit any Person to consolidate or merge into the Company, unless:

(a) either: (i) the Company is the surviving corporation; or (ii) the Person formed by or surviving any such consolidation, amalgamation or merger or resulting from such conversion (if other than the Company) or to which such sale, assignment, transfer, conveyance or other disposition has been made is a corporation, limited liability company or limited partnership organized or existing under the laws of the United States, any state of the United States or the District of Columbia;

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(b) the Person formed by or surviving any such conversion, consolidation, amalgamation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all the obligations of the Company under the Securities and this Indenture pursuant to agreements reasonably satisfactory to the Trustee; provided that, unless such Person is a corporation, a corporate co-issuer of the Securities will be added to this Indenture by agreements reasonably satisfactory to the Trustee;

(c) immediately before and after giving pro forma effect to such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; and

(d) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, amalgamation, merger, conveyance, sale, transfer or lease and such supplemental indenture, if any, comply with this Article Eight and that all conditions precedent herein provided for relating to such transaction have been complied with.

8.2 Successor Substituted. Upon any consolidation or merger of the Company with or into any other Person or any sale, conveyance, transfer, lease or other disposition of all or substantially all of the properties and assets of the Company on a consolidated basis in accordance with Section 8.1, the successor or resulting Person formed by or resulting upon such consolidation or merger (if other than the Company) or to which such sale, conveyance, transfer, lease or other disposition is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein, and thereafter, except in the case of a lease, the predecessor Company shall be relieved of all obligations and covenants under this Indenture and the Securities.

ARTICLE NINE
AMENDMENT, SUPPLEMENT AND WAIVER

9.1 Without Consent of Holders. The Company and the Trustee may amend or supplement this indenture or the Securities without the consent of any holder of a Security:

(a) to cure any ambiguity or to correct or supplement any provision herein that may be inconsistent with any other provision herein in a manner that does not adversely affect the rights of any Holder of Securities in any material respect; or

(b) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and, to the extent applicable, to the Securities; or

(c) to provide for uncertificated Securities in addition to or in place of certificated Securities; provided that the uncertificated Securities are issued in registered form for purposes of Section 163(f) of the Code, or in the manner such that the uncertificated Securities are described in Section 163(f)(2)(B) of the Code; or

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(d) to secure the Securities of any series; or

(e) to add to the covenants of the Company such further covenants, restrictions, conditions or provisions as the Company shall consider to be appropriate for the benefit of the Holders of all or any series of Securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company and to make the occurrence, or the occurrence and continuance, of a Default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein set forth; provided, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default; or

(f) to make any change to any provision of this Indenture that does not adversely affect the rights or interests of any Holder of Securities; or

(g) to provide for the issuance of additional Securities in accordance with the provisions set forth in this Indenture on the date of this Indenture; or

(h) to add any additional Defaults or Events of Default in respect of all or any series of Securities; or

(i) to add to, change or eliminate any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the issuance of Securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons; or

(j) to change or eliminate any of the provisions of this Indenture; provided that any such change or elimination shall become effective only when there is no Security Outstanding of any series created prior to the execution of such supplemental indenture that is entitled to the benefit of such provision; or

(k) to establish the form or terms of Securities of any series as permitted by Section 2.1 and Section 3.1, including to reopen any series of any Securities as permitted under Section 3.1; or

(l) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 6.11(b); or

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(m) to conform the text of this Indenture (and/or any supplemental indenture) or any debt securities issued thereunder to any provision of a description of such debt securities appearing in a prospectus or prospectus supplement or an offering memorandum or offering circular to the extent that such provision was intended to be a verbatim recreation of a provision of the indenture (and/or any supplemental indenture) or any debt securities issued thereunder; or

(n) to modify, eliminate or add to the provisions of this Indenture to such extent as shall be necessary to effect the qualification of this Indenture under the Trust Indenture Act or under any similar federal statute subsequently enacted, and to add to this Indenture such other provisions as may be expressly required under the Trust Indenture Act.

After an amendment under this Section 9.1 becomes effective, the Company shall mail to Holders a notice briefly describing such amendment. The failure to give such notice to Holders, or any defect therein, shall not impair or affect the validity of an amendment under this Section 9.1.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, the Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations that may be therein contained and to accept the conveyance, transfer, assignment, mortgage, charge or pledge of any property thereunder, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

9.2 With Consent of Holders. The Company and the Trustee may amend or supplement this Indenture and the Securities with the consent of the Holders of a majority in aggregate principal amount of the Outstanding Securities of each series of Securities affected by such amendment or supplemental indenture, with each such series voting as a separate class (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for Securities) and, subject to Section 5.8 and Section 5.13 hereof, any existing Default or Event of Default or compliance with any provision of this Indenture or the Securities may be waived with respect to each series of Securities with the consent of the Holders of a majority in principal amount of the Outstanding Securities of such series voting as a separate class (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Securities).

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, and upon the filing with the Trustee of evidence satisfactory to the Trustee of the consent of the Holders of Securities as aforesaid, and upon receipt by the Trustee of the documents described in Section 6.3 hereof, the Trustee will join with the Company in the execution of such amended or supplemental indenture unless such amended or supplemental indenture directly affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but will not be obligated to, enter into such amended or supplemental Indenture.

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It is not necessary for the consent of the Holders of Securities under this Section 9.2 to approve the particular form of any proposed amendment or waiver, but it is sufficient if such consent approves the substance of the proposed amendment or waiver.

After an amendment, supplement or waiver under this Section 9.2 becomes effective, the Company will mail to the Holders of Securities affected thereby a notice briefly describing the amendment, supplement or waiver. Any failure of the Company to mail such notice, or any defect therein, will not, however, in any way impair or affect the validity of any such amended or supplemental indenture or waiver. Subject to Section 5.8 and Section 5.13 hereof, the application of or compliance with, either generally or in any particular instance, of any provision of this Indenture or the Securities may be waived as to each series of Securities by the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series. However, without the consent of each Holder affected, an amendment or waiver under this Section 9.2 may not (with respect to any Securities held by a non-consenting Holder):

(a) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2, or change any Place of Payment where, or the coin or currency in which, any Security or any premium or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date), or

(b) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture, or

(c) modify any of the provisions of this Section 9.2, Section 5.8, Section 5.13 or Section 10.6, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby, provided, however, that this clause (c) shall not be deemed to require the consent of any Holder with respect to changes in the references to "the Trustee" and concomitant changes in this Section, or the deletion of this proviso, in accordance with the requirements of Section 6.11(b) and Section 9.1(h); or

(d) waive a redemption payment with respect to any Security; provided, however, that any purchase or repurchase of Securities shall not be deemed a redemption of the Securities; or

(e) make any change in the foregoing amendment and waiver provisions.

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A supplemental indenture that changes or eliminates any covenant or other provision of this Indenture that has expressly been included solely for the benefit of one or more particular series of Securities, or that modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders under this Section 9.2 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

9.3 Execution of Supplemental Indentures. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

9.4 Effect of Supplemental Indentures. Upon the execution of any supplemental indenture under this Article Nine, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

9.5 Conformity with Trust Indenture Act. Every supplemental indenture executed pursuant to this Article Nine shall conform to the requirements of the Trust Indenture Act as then in effect.

9.6 Reference in Securities to Supplemental Indentures. Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article Nine may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

ARTICLE TEN COVENANTS

10.1 Payment of Principal, Premium and Interest. The Company covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay the principal of and any premium and interest on the Securities of that series in accordance with the terms of the Securities and this Indenture.

10.2 Maintenance of Office or Agency. The Company will maintain in the Borough of Manhattan, The City of New York, an office or agency (which may be an office of the Trustee or Registrar or agent of the Trustee or Registrar) where Securities of that series may be presented or surrendered for payment, where Securities of that series may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee.

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The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the Borough of Manhattan, The City of New York for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Except as otherwise specified with respect to a series of Securities as contemplated by Section 3.1, the Company hereby initially designates the office of the Trustee located at [____], New York, New York [____], as the Company's office or agency for each such purpose for each series of Securities.

10.3 Money for Securities Payments to Be Held in Trust. If the Company shall at any time act as its own Paying Agent, with respect to any series of Securities, it will, on or before each due date of the principal of and any premium or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and any premium and interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, prior to each due date of the principal of and any premium or interest on any Securities of that series, deposit with a Paying Agent a sum sufficient to pay the principal and any premium or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act. For purposes of this Section 10.3, should a due date for principal of and any premium or interest on, or sinking fund payment with respect to any series of Securities not be on a Business Day, such payment shall be due on the next Business Day without any interest for the period from the due date until such Business Day.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will:

(a) hold all sums held by it for the payment of the principal of and any premium or interest on Securities of that series in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;

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(b) give the Trustee notice of any Default by the Company (or any other obligor upon the Securities of that series) in the making of any payment of principal and any premium or interest on the Securities of that series; and

(c) at any time during the continuance of any such Default, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Subject to any applicable escheat or abandoned property laws, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of and any premium or interest on any Security of any series and remaining unclaimed for one year after such principal and any premium or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to

such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in the Borough of Manhattan, The City of New York, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

10.4 Existence. Subject to Article Eight, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its existence, rights (charter and statutory) and franchises; provided, however, that the Company shall not be required to preserve any such right or franchise if the Company shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company.

10.5 Statement by Officers as to Default. Annually, within 150 days after the close of each fiscal year beginning with the first fiscal year during which one or more series of Securities are Outstanding, the Company will deliver to the Trustee a brief certificate (which need not include the statements set forth in Section 1.3) from the principal executive officer, principal financial officer or principal accounting officer of the Company as to his or her knowledge of the Company's compliance (without regard to any period of grace or requirement of notice provided herein) with all conditions and covenants under the Indenture and, if the Company shall be in Default, specifying all such Defaults and the nature and status thereof of which such officer has knowledge.

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10.6 Additional Amounts. If the Securities of a series provide for the payment of additional amounts (as provided in Section 3.1(o)), at least 10 days prior to the first Interest Payment Date with respect to that series of Securities and at least 10 days prior to each date of payment of principal of, premium, if any, or interest on the Securities of that series if there has been a change with respect to the matters set forth in the below-mentioned Officer's Certificate, the Company shall furnish to the Trustee and the principal Paying Agent, if other than the Trustee, an Officer's Certificate instructing the Trustee and such Paying Agent whether such payment of principal of, premium, if any, or interest on the Securities of that series shall be made to holders of the Securities of that series without withholding or deduction for or on account of any tax, assessment or other governmental charge described in the Securities of that series. If any such withholding or deduction shall be required, then such Officer's Certificate shall specify by country the amount, if any, required to be withheld or deducted on such payments to such holders and shall certify the fact that additional amounts will be payable and the amounts so payable to each holder, and the Company shall pay to the Trustee or such Paying Agent the additional amounts required to be paid by this Section. The Company covenants to indemnify the Trustee and any Paying Agent for, and to hold them harmless against, any loss, liability or expense reasonably incurred without negligence or bad faith on their part arising out of or in connection with actions taken or omitted by any of them in reliance on any Officer's Certificate furnished pursuant to this Section 10.6.

Whenever in this Indenture there is mentioned, in any context, the payment of the principal of or any premium, interest or any other amounts on, or in respect of, any Securities of any series, such mention shall be deemed to include mention of the payment of additional amounts provided by the terms of such series established hereby or pursuant hereto to the extent that, in such context, additional amounts are, were or would be payable in respect thereof pursuant to such terms, and express mention of the payment of additional amounts (if applicable) in any provision hereof shall not be construed as excluding the payment of additional amounts in those provisions hereof where such express mention is not made.

ARTICLE ELEVEN

REDEMPTION OF SECURITIES

11.1 Applicability of Article. Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 3.1 for Securities of any series) in accordance with this Article Eleven.

11.2 Election to Redeem; Notice to Trustee. The election of the Company to redeem any Securities shall be evidenced by a Board Resolution. In case of any redemption at the election of the Company of less than all the Securities of any series, the Company shall, at least 15 days prior to the last date for the giving of notice of such redemption (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed and, if applicable, of the tenor of the Securities to be redeemed. In the case of any redemption of Securities (a) prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture or (b) pursuant to an election of the Company that is subject to a condition specified in the terms of the Securities of the series to be redeemed, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with such restriction or condition.

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11.3 Selection by Trustee of Securities to Be Redeemed. If less than all the Securities of any series are to be redeemed (unless all of the Securities of such series and of a specified tenor are to be redeemed), the particular Securities to be redeemed shall be selected not more than 45 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series not previously called for redemption, by lot, pro rata or by another method as the Trustee shall deem fair and appropriate, including any method required by the Depository with respect to any Global Securities (and in such manner as is not prohibited by applicable legal requirements) and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof) of the principal amount of Securities of such series of a denomination larger than the minimum authorized denomination for Securities of that series.

The Trustee shall promptly notify the Company in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed. If the Securities of any series to be redeemed consist of Securities having different dates on which the principal is payable or different rates of interest, or different methods by which interest may be determined or have any other different tenor or terms, then the Company may, by written notice to the Trustee, direct that the Securities of such series to be redeemed shall be selected from among the groups of such Securities having specified tenor or terms and the Trustee shall thereafter select the particular Securities to be redeemed in the manner set forth in the preceding paragraph from among the group of such Securities so specified.

For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal amount of such Securities which has been or is to be redeemed.

11.4 Notice of Redemption. Notice of redemption shall be given by first-class mail, postage prepaid, mailed not less than 30 nor more than 60 days prior to the Redemption Date, to each Holder of Securities to be redeemed, at his address appearing in the Security Register.

All notices of redemption shall state:

- (a) the Redemption Date,
- (b) the Redemption Price, or if not then ascertainable, the manner of calculation thereof,

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(c) if less than all the Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amounts) of the particular Securities to be redeemed,

(d) that on the Redemption Date the Redemption Price will become due and payable upon each such Security to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date,

(e) the place or places where such Securities are to be surrendered for payment of the Redemption Price, and

(f) that the redemption is for a sinking fund, if such is the case.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company.

11.5 Deposit of Redemption Price. Prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 10.3) an amount of money sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities which are to be redeemed on that date.

11.6 Securities Payable on Redemption Date. Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such Security for redemption in accordance with said notice, such Security shall be paid by the Company at the Redemption Price, together with accrued interest to the Redemption Date; provided, however, that unless otherwise specified with respect to Securities of any series as contemplated in Section 3.1, installments of interest whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant record dates according to their terms and the provisions of Section 3.7.

If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal (and premium, if any) shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Security.

11.7 Securities Redeemed in Part. Any Security which is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series and tenor, of any authorized denomination as requested by such Holder, in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered.

ARTICLE TWELVE SINKING FUNDS

12.1 Applicability of Article. The provisions of this Article Twelve shall be applicable to any sinking fund for the retirement of Securities of a series except as otherwise specified as contemplated by Section 3.1 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a "**mandatory sinking fund payment**," and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an "**optional sinking fund payment**." If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 12.2. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

12.2 Satisfaction of Sinking Fund Payments with Securities. The Company (a) may deliver Outstanding Securities of a series (other than any previously called for redemption) and (b) may apply as a credit Securities of a series which have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series; provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

12.3 Redemption of Securities for Sinking Fund. Not less than 45 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer's Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities of that series pursuant to Section 12.2 and stating the basis for such credit and that such Securities have not been previously so credited, and will also deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 11.3 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 11.4. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 11.6 and Section 11.7.

ARTICLE THIRTEEN DEFEASANCE

13.1 Option to Effect Legal Defeasance or Covenant Defeasance. The Company may, at the option of its Board of Directors evidenced by a resolution set forth in an Officer's Certificate, and at any time, elect to have either Section 13.2 or Section 13.3 hereof be applied to all outstanding Securities upon compliance with the conditions set forth below in this Article Thirteen.

13.2 Legal Defeasance and Discharge. Upon the Company's exercise under Section 13.1 hereof of the option applicable to this Section 13.2, the Company will, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, be deemed to have been discharged from their obligations with respect to all outstanding Securities on the date the conditions set forth below are satisfied (hereinafter, "**Legal Defeasance**"). For this purpose, Legal Defeasance means that the Company will be deemed to have

paid and discharged the entire Debt represented by the outstanding Securities, which will thereafter be deemed to be “outstanding” only for the purposes of Section 13.5 hereof and the other sections of this Indenture referred to in clauses (a) and (b) below, and to have satisfied all their other obligations under such Securities and this Indenture (and the Trustee, on demand of and at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following provisions which will survive until otherwise terminated or discharged hereunder:

- (a) the rights of Holders of Outstanding Securities to receive payments in respect of the principal of, or interest or premium, if any, on such Securities when such payments are due from the trust referred to in Section 13.4 hereof;
- (b) the Company’s obligations with respect to such Securities under Section 3.4, Section 3.5, Section 3.6, Section 10.2 and Section 10.3 hereof;
- (c) the rights, powers, trusts, duties and immunities of the Trustee hereunder and the Company’s obligations in connection therewith; and
- (d) this Article Thirteen.

Subject to compliance with this Article Thirteen, the Company may exercise its option under this Section 13.2 notwithstanding the prior exercise of its option under Section 13.3 hereof.

13.3 Covenant Defeasance. Upon the Company’s exercise under Section 13.1 hereof of the option applicable to this Section 13.3, the Company will, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, be released from each of their obligations under the covenants contained in Section 7.4, Section 8.1 and Section 10.4 hereof as well as any Additional Defeasible Provisions (such release and termination hereinafter referred to as “**Covenant Defeasance**”), and the Securities will thereafter be deemed not “outstanding” for the purposes of any direction, waiver, consent or declaration or act of Holders (and the consequences of any thereof) in connection with such covenants, but will continue to be deemed “outstanding” for all other purposes hereunder (it being understood that such Securities will not be deemed outstanding for accounting purposes). For this purpose, Covenant Defeasance means that, with respect to the outstanding Securities, the Company may omit to comply with and will have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of any reference in any such covenant to any other provision herein or in any other document and such omission to comply will not constitute a Default or an Event of Default under Section 5.1 hereof, but, except as specified above, the remainder of this Indenture and such Securities will be unaffected thereby. In addition, upon the Company’s exercise under Section 13.1 hereof of the option applicable to this Section 13.3 hereof, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, Section 5.1(c) and Section 5.1(e) hereof and will not constitute Events of Default.

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13.4 Conditions to Legal or Covenant Defeasance. In order to exercise either Legal Defeasance or Covenant Defeasance under either Section 13.2 or Section 13.3 hereof:

(a) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the Holders of the Securities, cash in U.S. dollars, non-callable U.S. Government Obligations, or a combination of cash in U.S. dollars and non-callable U.S. Government Obligations, in such amounts as will be sufficient, in the opinion of a nationally recognized investment bank, appraisal firm, or firm of independent public accountants to pay the principal of, or interest and premium, if any, on the Outstanding Securities on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Company must specify whether the Securities are being defeased to such stated date for payment or to a particular redemption date;

(b) in the case of an election under Section 13.2 hereof, the Company must deliver to the Trustee an Opinion of Counsel confirming that:

- (i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling; or
- (ii) since the Issue Date, there has been a change in the applicable federal income tax law,

in either case to the effect that, and based thereon such Opinion of Counsel will confirm that, the Holders of the Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(c) in the case of an election under Section 13.3 hereof, the Company must deliver to the Trustee an Opinion of Counsel confirming that the Holders of the Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

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(d) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit);

(e) the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Company is a party or by which the Company is bound;

(f) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than this Indenture) to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound;

(g) the Company must deliver to the Trustee an Officers’ Certificate stating that the deposit was not made by the Company with the intent of preferring the Holders of Securities over the other creditors of the Company with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company or others;

(h) the Company must deliver to the Trustee an Officer’s Certificate, stating that all conditions precedent set forth in clauses (a) through (g) of this Section 13.4 have been complied with; and

(i) the Company must deliver to the Trustee an Opinion of Counsel (which Opinion of Counsel may be subject to customary assumptions, qualifications and exclusions), stating that all conditions precedent set forth in clauses (b), (c) and (e) of this Section 13.4 have been complied with; provided that the Opinion of Counsel with respect to clause (e) of this Section 13.4 may be to the knowledge of such counsel.

13.5 Deposited Money and U.S. Government Obligations to be Held in Trust. Other Miscellaneous Provisions Subject to Section 13.6 hereof, all money and non-

callable U.S. Government Obligation (including the proceeds thereof) deposited with the Trustee (or other qualifying trustee, collectively for purposes of this Section 13.5, the "Trustee") pursuant to Section 13.4 hereof in respect of the Outstanding Securities will be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as Paying Agent) as the Trustee may determine, to the Holders of such Securities of all sums due and to become due thereon in respect of principal, premium, if any, and interest, but such money need not be segregated from other funds except to the extent required by law.

The Company will pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the cash or non-callable U.S. Government Obligations deposited pursuant to Section 13.4 hereof or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of the Outstanding Securities.

Notwithstanding anything in this Article Thirteen to the contrary, the Trustee will deliver or pay to the Company from time to time upon the request of the Company any money or non-callable U.S. Government Obligations held by it as provided in Section 13.4 hereof which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee (which may be the opinion delivered under Section 13.4(a) hereof), are in excess of the amount thereof that would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.

13.6 Repayment. Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of, premium, if any, or interest on any Security and remaining unclaimed for two years after such principal, premium, if any, or interest has become due and payable shall be paid to the Company on its request or (if then held by the Company) will be discharged from such trust; and the Holder of such Security will thereafter be permitted to look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, will thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in the *New York Times* and *The Wall Street Journal* (national edition), notice that such money remains unclaimed and that, after a date specified therein, which will not be less than 30 days from the date of such notification or publication, any unclaimed balance of such money then remaining will be repaid to the Company.

13.7 Reinstatement. If the Trustee or Paying Agent is unable to apply any United States dollars or non-callable U.S. Government Obligations in accordance with Section 13.2 or Section 13.3 hereof, as the case may be, by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Securities will be revived and reinstated as though no deposit had occurred pursuant to Section 13.2 or Section 13.3 hereof until such time as the Trustee or Paying Agent is permitted to apply all such money in accordance with Section 13.2 or Section 13.3 hereof, as the case may be; provided, however, that, if the Company makes any payment of principal of, premium, if any, or interest on any Note following the reinstatement of its obligations, the Company will be subrogated to the rights of the Holders of such Securities to receive such payment from the money held by the Trustee or Paying Agent.

This instrument may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, and their respective corporate seals to be hereunto affixed and attested, all as of the day and year first above written.

ALTO INGREDIENTS, INC.

By: _____
Name: _____
Title: _____

[TRUSTEE]

By: _____
Name: _____
Title: _____

ALTO INGREDIENTS, INC.

AND

[TRUSTEE]

Trustee

INDENTURE

DATED AS OF _____, 20__

SUBORDINATED DEBT SECURITIES

**ALTO INGREDIENTS, INC.
RECONCILIATION AND TIE BETWEEN TRUST INDENTURE ACT OF 1939, AS AMENDED,
AND INDENTURE, DATED AS OF _____, 20__**

TRUST INDENTURE ACT SECTION	INDENTURE SECTION
Section 310(a)(1)	6.9
(a)(2)	6.9
(a)(3)	Not Applicable
(a)(4)	Not Applicable
(a)(5)	6.9
(b)	6.8
Section 311	6.13
Section 312(a)	7.1, 7.2(a)
(b)	7.2(b)
(c)	7.2(c)
Section 313(a)	7.3
(b)	*
(c)	*
(d)	7.3
Section 314(a)	7.4
(a)(4)	10.5
(b)	Not Applicable
(c)(1)	1.3
(c)(2)	1.3
(c)(3)	Not Applicable
(d)	Not Applicable
(e)	1.3
Section 315(a)	6.1(a)
(b)	6.2
(c)	6.1(b)
(d)	6.1(c)
(d)(1)	6.1(a)(1)
(d)(2)	6.1(c)(2)
(d)(3)	6.1(c)(3)
(e)	5.14
Section 316(a)	1.1, 1.2
(a)(1)(A)	5.2, 5.12
(a)(1)(B)	5.13
(a)(2)	Not Applicable
(b)	5.8
(c)	1.5(f)
Section 317(a)(1)	5.3
(a)(2)	5.4
(b)	10.3
Section 318(a)	1.8

NOTE: This reconciliation and tie shall not, for any purpose, be deemed to be a part of the Indenture.

* Deemed included pursuant to Section 318(c) of the Trust Indenture Act

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INDENTURE

INDENTURE, dated as of _____, 20____, between ALTO INGREDIENTS, INC., a corporation duly organized and existing under the laws of the State of Delaware (herein called the “**Company**”) and [TRUSTEE], a banking corporation organized under the laws of the United States, as trustee (the “**Trustee**”).

RECITALS

WHEREAS, the Company has duly authorized the execution and delivery of this Indenture to provide for the issuance from time to time of its unsecured subordinated debentures, notes or other evidences of indebtedness (herein called the “**Securities**”), to be issued in one or more series as provided in this Indenture;

WHEREAS, all things necessary to make this Indenture a valid agreement of the Company, in accordance with its terms, have been done; and

WHEREAS, this Indenture is subject to the provisions of the Trust Indenture Act that are required to be a part of this Indenture and, to the extent applicable, shall be governed by such provisions.

NOW, THEREFORE, in consideration of the premises and the purchase of the Securities by the Holders thereof, it is mutually covenanted and agreed, for the equal and proportionate benefit of all Holders of the Securities or of series thereof, as follows:

ARTICLE ONE DEFINITIONS AND OTHER PROVISIONS OF GENERAL APPLICATION

1.1 Definitions. For all purposes of this Indenture, except as otherwise expressly provided or unless the context otherwise requires:

- (a) the terms defined in this Article have the meanings assigned to them in this Article and include the plural as well as the singular;
- (b) all terms used in this Indenture that are defined in the Trust Indenture Act, defined by a Trust Indenture Act reference to another statute or defined by an SEC rule under the Trust Indenture Act have the meanings so assigned to them;
- (c) all accounting terms not otherwise defined herein have the meanings assigned to them in accordance with GAAP;
- (d) the words “**herein**,” “**hereof**” and “**hereunder**” and other words of similar import refer to this Indenture as a whole and not to any particular Article, Section or other subdivision;
- (e) the words “**Article**” and “**Section**” refer to an Article and Section, respectively, of this Indenture; and

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- (f) the word “**includes**” and its derivatives means “**includes, but is not limited to**” and corresponding derivative definitions.

Certain terms, used principally in Article Six, are defined in that Article.

“**Act**,” when used with respect to any Holder, has the meaning specified in Section 1.5.

“**Additional Defeasible Provision**” means a covenant or other provision contained that is (a) made part of this Indenture pursuant to a supplemental indenture hereto, a Board Resolution or an Officer’s Certificate delivered pursuant to Section 3.1, and (b) pursuant to the terms set forth in such supplemental indenture, Board Resolution or Officer’s Certificate, made subject to the provisions of Article Thirteen.

“**Affiliate**” of any specified Person means any other Person directly or indirectly controlling or controlled by or under direct or indirect common control with such specified Person. For purposes of this definition, “**control**,” as used with respect to any Person, means the possession, directly or indirectly, of the power to direct or cause the direction of the management or policies of such Person, whether through the ownership of voting securities, by agreement or otherwise. For purposes of this definition, the terms “**controlling**,” “**controlled by**” and “**under common control with**” have correlative meanings.

“**Authenticating Agent**” means any Person authorized by the Trustee to act on behalf of the Trustee to authenticate Securities.

“**Banking Day**” means, in respect of any city, any date on which commercial banks are open for business in that city.

“**Bankruptcy Law**” means any applicable Federal or State bankruptcy, insolvency, reorganization or other similar law.

“**Board of Directors**” means the board of directors of the Company or any duly authorized committee of that board to which the powers of that board have been lawfully delegated.

“**Board Resolution**” means a copy of a resolution certified by the Secretary or an Assistant Secretary of the Company, the principal financial officer of the Company, any other authorized officer of the Company, or a person duly authorized by any of them, in each case as applicable, to have been duly adopted by the Board of Directors and to be in full force and effect on the date of such certification, and delivered to the Trustee. Where any provision of this Indenture refers to action to be taken pursuant to a Board Resolution (including the establishment of any series of the Securities and the forms and terms thereof), such action may be taken by any committee, officer or employee of the Company authorized to take such action by the Board of Directors as evidenced by a Board Resolution.

“**Business Day**,” when used with respect to any Place of Payment or other location, means, except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, each Monday, Tuesday, Wednesday, Thursday and Friday which is not a day on which banking institutions in that Place of Payment or other location are authorized or obligated by law, executive order or regulation to close.

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“**CINS**” means the CUSIP International Numbering System.

“Code” means the United States Internal Revenue Code of 1986, as amended.

“Company” means the Person named as the “Company” in the first paragraph of this instrument until a successor or resulting corporation shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Company” shall mean such successor or resulting corporation.

“Company Request” or “Company Order” means, in the case of the Company, a written request or order signed in the name of the Company by its Chairman of the Board, its Chief Executive Officer, its Chief Financial Officer, its Chief Operating Officer, its President, any of its Vice Presidents or any other duly authorized officer of the Company or any person duly authorized by any of them, and delivered to the Trustee.

“Corporate Trust Office” means the office of the Trustee at its address specified in Section 1.6 or such other address as to which the Trustee may give notice to the Company.

“corporation” includes corporations, companies, associations, partnerships, limited partnerships, limited liability companies, joint-stock companies and trusts.

“Covenant Defeasance” has the meaning specified in Section 13.3.

“CUSIP” means the Committee on Uniform Securities Identification Procedures.

“Custodian” means any receiver, trustee, assignee, liquidator or similar official under any Bankruptcy Law.

“Debt” means any obligation created or assumed by any Person for the repayment of money borrowed and any purchase money obligation created or assumed by such Person and any guarantee of the foregoing.

“Default” means, with respect to a series of Securities, any event that is, or after notice or lapse of time or both would be, an Event of Default.

“Defaulted Interest” has the meaning specified in Section 3.7.

“Definitive Security” means a security other than a Global Security or a temporary Security.

“Depository” means, with respect to the Securities of any series issuable or issued in whole or in part in the form of one or more Global Securities, a clearing agency registered under the Exchange Act that is designated to act as Depository for such Securities as contemplated by Section 3.1, until a successor Depository shall have become such pursuant to the applicable provisions of this Indenture, and thereafter shall mean or include each Person which is a Depository hereunder, and if at any time there is more than one such Person, shall be a collective reference to such Persons.

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“Designated Senior Debt” shall have the meaning given to such term in any Board Resolution or indenture supplemental hereto.

“Dollar” or “\$” means the coin or currency of the United States of America, which at the time of payment is legal tender for the payment of public and private debts.

“Event of Default” has the meaning specified in Section 5.1.

“Exchange Act” means the Securities Exchange Act of 1934, as amended.

“Foreign Currency” means a currency used by the government of a country other than the United States of America.

“GAAP” means generally accepted accounting principles in the United States of America as in effect from time to time, including those set forth in the opinions and pronouncements of the Accounting Principles Board of the American Institute of Certified Public Accountants and statements and pronouncements of the Financial Accounting Standards Board or in such other statements by such other entity as approved by a significant segment of the accounting profession. All ratios and computations based on GAAP contained in this Indenture will be computed in conformity with GAAP.

“Global Security” means a Security in global form that evidences all or part of a series of Securities and is authenticated and delivered to, and registered in the name of, the Depository for the Securities of such series or its nominee.

“Holder” means a Person in whose name a Security is registered in the Security Register.

“Indenture” means this instrument as originally executed or as it may from time to time be supplemented or amended by one or more indentures supplemental hereto entered into pursuant to the applicable provisions hereof, including, for all purposes of this instrument, and any such supplemental indenture, the provisions of the Trust Indenture Act that are deemed to be part of and govern this instrument and any such supplemental indenture, respectively. The term “Indenture” also shall include the terms of particular series of Securities established as contemplated by Section 3.1.

“interest,” when used with respect to an Original Issue Discount Security which by its terms bears interest only after Maturity, means interest payable after Maturity.

“Interest Payment Date,” when used with respect to any Security, means the Stated Maturity of an installment of interest on such Security.

“Judgment Currency” has the meaning specified in Section 1.16.

“Legal Defeasance” has the meaning specified in Section 13.2.

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“mandatory sinking fund payment” has the meaning specified in Section 12.1.

“Maturity,” when used with respect to any Security, means the date on which the principal of such Security or an installment of principal becomes due and payable as therein or herein provided, whether at the Stated Maturity or by declaration of acceleration, call for redemption or otherwise.

“**Notice of Default**” means a written notice of the kind specified in Section 5.1(d).

“**Officer’s Certificate**” means, in the case of the Company, a certificate signed by the Chairman of the Board, the Chief Executive Officer, the Chief Financial Officer, the Chief Operating Officer, the President, any Vice President or any other duly authorized officer of the Company, or a person duly authorized by any of them, and delivered to the Trustee.

“**Opinion of Counsel**” means a written opinion of counsel, who may be an employee of or counsel for the Company and who shall be reasonably acceptable to the Trustee.

“**optional sinking fund payment**” has the meaning specified in Section 12.1.

“**Original Issue Discount Security**” means any Security which provides for an amount less than the principal amount thereof to be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2.

“**Outstanding**,” when used with respect to Securities, means, as of the date of determination, all Securities theretofore authenticated and delivered under this Indenture, except:

(a) Securities theretofore canceled by the Trustee or delivered to the Trustee for cancellation;

(b) Securities for whose payment or redemption money in the necessary amount has been theretofore deposited with the Trustee or any Paying Agent (other than the Company) in trust or set aside and segregated in trust by the Company (if the Company shall act as its own Paying Agent) for the Holders of such Securities; provided, however, that, if such Securities are to be redeemed, notice of such redemption has been duly given pursuant to this Indenture or provision therefor satisfactory to the Trustee has been made;

(c) Securities which have been paid pursuant to Section 3.6 or in exchange for or in lieu of which other Securities have been authenticated and delivered pursuant to this Indenture, other than any such Securities in respect of which there shall have been presented to the Trustee proof satisfactory to it that such Securities are held by a bona fide purchaser in whose hands such Securities are valid obligations of the Company; and

(d) Securities, except to the extent provided in Section 13.2 and Section 13.3, with respect to which the Company has effected Legal Defeasance or Covenant Defeasance as provided in Article Thirteen, which Legal Defeasance or Covenant Defeasance then continues in effect;

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provided, however, that in determining whether the Holders of the requisite principal amount of the Outstanding Securities have given any request, demand, authorization, direction, notice, consent or waiver hereunder, (i) the principal amount of an Original Issue Discount Security that shall be deemed to be Outstanding shall be the amount of the principal thereof that would be due and payable as of the date of such determination upon acceleration of the Maturity thereof on such date pursuant to Section 5.2, (ii) the principal amount of a Security denominated in one or more currencies or currency units other than U.S. dollars shall be the U.S. dollar equivalent of such currencies or currency units, determined in the manner provided as contemplated by Section 3.1 on the date of original issuance of such Security or by Section 1.15, if not otherwise so provided pursuant to Section 3.1, of the principal amount (or, in the case of an Original Issue Discount Security, the U.S. dollar equivalent (as so determined) on the date of original issuance of such Security of the amount determined as provided in clause (i) above) of such Security, and (iii) Securities owned by the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor shall be disregarded and deemed not to be Outstanding, except that, in determining whether the Trustee shall be protected in relying upon any such request, demand, authorization, direction, notice, consent or waiver, only Securities which the Trustee knows to be so owned shall be so disregarded. Securities so owned as described in clause (iii) of the immediately preceding sentence which have been pledged in good faith may be regarded as Outstanding if the pledgee establishes to the satisfaction of the Trustee the pledgee’s right to act with respect to such Securities and that the pledgee is not the Company or any other obligor upon the Securities or any Affiliate of the Company or of such other obligor.

“**Paying Agent**” means any Person authorized by the Company to pay the principal of and any premium or interest on any Securities on behalf of the Company.

“**Periodic Offering**” means an offering of Securities of a series from time to time, the specific terms of which Securities, including, without limitation, the rate or rates of interest or formula for determining the rate or rates of interest thereon, if any, the Stated Maturity or Stated Maturities thereof, the original issue date or dates thereof, the redemption provisions, if any, with respect thereto, and any other terms specified as contemplated by Section 3.1 with respect thereto, are to be determined by the Company upon the issuance of such Securities.

“**Person**” means any individual, corporation, company, limited liability company, partnership, limited partnership, joint venture, association, joint-stock company, trust, other entity, unincorporated organization or government or any agency or political subdivision thereof.

“**Place of Payment**,” when used with respect to the Securities of any series, means, unless otherwise specifically provided for with respect to such series as contemplated by Section 3.1, the office or agency of the Company in the City of New York and such other place or places where, subject to the provisions of Section 10.2, the principal of and any premium and interest on the Securities of that series are payable as contemplated by Section 3.1.

“**Predecessor Security**” of any particular Security means every previous Security evidencing all or a portion of the same debt as that evidenced by such particular Security; and, for the purposes of this definition, any Security authenticated and delivered under Section 3.6 in exchange for or in lieu of a mutilated, destroyed, lost or stolen Security shall be deemed to evidence the same debt as the mutilated, destroyed, lost or stolen Security.

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“**Redemption Date**,” when used with respect to any Security to be redeemed, means the date fixed for such redemption by or pursuant to this Indenture.

“**Redemption Price**,” when used with respect to any Security to be redeemed, means the price at which it is to be redeemed pursuant to this Indenture.

“**Regular Record Date**” for the interest payable on any Interest Payment Date on the Securities of any series means the date specified for that purpose as contemplated by Section 3.1.

“**Required Currency**” has the meaning specified in Section 1.16.

“**Responsible Officer**” when used with respect to the Trustee, means any officer within the Corporate Trust Administration of the Trustee (or any successor group of the Trustee) or any other officer of the Trustee customarily performing functions similar to those performed by any of the above designated officers and also means, with

respect to a particular corporate trust matter, any other officer to whom such matter is referred because of his knowledge of and familiarity with the particular subject.

“**SEC**” means the Securities and Exchange Commission, as from time to time constituted, created under the Exchange Act, or, if at any time after the execution of this instrument such commission is not existing and performing the duties now assigned to it under the Trust Indenture Act, then the body performing such duties at such time.

“**Securities**” has the meaning stated in the first recital of this Indenture and more particularly means any Securities authenticated and delivered under this Indenture.

“**Security Register**” and “**Security Registrar**” have the respective meanings specified in Section 3.5.

“**Senior Debt**” means (a) all Debt of the Company, whether currently outstanding or hereafter issued, unless, by the terms of the instrument creating or evidencing such Debt, it is provided that such Debt is not superior in right of payment to the Securities, and (b) any modifications, refunding, deferrals, renewals or extensions of any such Debt or securities, notes or other evidence of Debt issued in exchange for such Debt; provided that in no event shall “**Senior Debt**” include (i) Debt of the Company owed or owing to any Subsidiary of the Company or any officer, director or employee of the Company or any Subsidiary of the Company, (ii) Debt to trade creditors or (iii) any liability for taxes owned or owing by the Company.

“**Significant Subsidiary**” means any Subsidiary that would be a “Significant Subsidiary” of the Company within the meaning of Rule 1-02 under Regulation S-X promulgated by the SEC.

“**Special Record Date**” for the payment of any Defaulted Interest means a date fixed by the Trustee pursuant to Section 3.7.

“**Stated Maturity**,” when used with respect to any Security or any installment of principal thereof or interest thereon, means the date specified in such Security as the fixed date on which the principal of such Security or such installment of principal or interest is due and payable.

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“**Subsidiary**” means (a) a corporation more than 50% of the outstanding voting stock of which is owned, directly or indirectly, by the Company or by one or more other Subsidiaries, or by the Company and one or more other Subsidiaries or (b) any partnership or similar business organization more than 50% of the ownership interests having ordinary voting power of which shall at the time be so owned. For the purposes of this definition, “**voting stock**” means capital stock or equity interests which ordinarily have voting power for the election of directors, whether at all times or only so long as no senior class of stock has such voting power by reason of any contingency.

“**Trustee**” means the Person named as the “Trustee” in the first paragraph of this instrument until a successor Trustee shall have become such pursuant to the applicable provisions of this Indenture, and thereafter “Trustee” shall mean or include each Person who is then a Trustee hereunder, and if at any time there is more than one such Person, “Trustee” as used with respect to the Securities of any series shall mean the Trustee with respect to Securities of that series.

“**Trust Indenture Act**” means the Trust Indenture Act of 1939, as amended, as in force at the date as of which this instrument was executed, except as provided in Section 9.5; *provided, however*, that if the Trust Indenture Act of 1939 is amended after such date, “**Trust Indenture Act**” means, to the extent required by any such amendment, the Trust Indenture Act of 1939 as so amended.

“**U.S. Person**” shall have the meaning assigned to such term in Section 7701(a)(30) of the Code.

“**U.S. Government Obligations**” means securities which are (a) direct obligations of the United States for the payment of which its full faith and credit is pledged, or (b) obligations of a Person controlled or supervised by and acting as an agency or instrumentality of the United States, the payment of which is unconditionally guaranteed as a full faith and credit obligation by the United States, each of which are not callable or redeemable at the option of the issuer thereof.

“**Vice President**,” when used with respect to the Company or the Trustee, means any vice president, regardless of whether designated by a number or a word or words added before or after the title “vice president.”

1.2 Incorporation by Reference of Trust Indenture Act. Whenever this Indenture refers to a provision of the Trust Indenture Act, the provision is incorporated by reference in and made a part of this Indenture. The following Trust Indenture Act terms used in this Indenture have the following meanings:

“**commission**” means the SEC.

“**indenture securities**” means the Securities.

“**indenture security holder**” means a Holder.

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“**indenture to be qualified**” means this Indenture.

“**indenture trustee**” or “**institutional trustee**” means the Trustee.

“**obligor**” on the indenture securities means the Company or any other obligor on the indenture securities.

All terms used in this Indenture that are defined by the Trust Indenture Act, defined by a Trust Indenture Act reference to another statute or defined by an SEC rule under the Trust Indenture Act have the meanings so assigned to them.

1.3 Compliance Certificates and Opinions. Upon any application or request by the Company to the Trustee to take any action under any provision of this Indenture, the Company shall furnish to the Trustee an Officer’s Certificate stating that all conditions precedent, if any, provided for in this Indenture relating to the proposed action have been complied with and an Opinion of Counsel stating that in the opinion of such counsel all such conditions precedent, if any, have been complied with, except that in the case of any such application or request as to which the furnishing of such documents is specifically required by any provision of this Indenture relating to such particular application or request, no additional certificate or opinion need be furnished except as required under Section 3.14(c) of the Trust Indenture Act.

Every certificate or opinion with respect to compliance with a condition or covenant provided for in this Indenture (except for certificates provided for in Section 10.5) shall include:

(a) a statement that each individual signing such certificate or opinion has read such covenant or condition and the definitions herein relating thereto;

(b) a brief statement as to the nature and scope of the examination or investigation upon which the statements or opinions contained in such certificate or opinion are based;

(c) a statement that, in the opinion of each such individual, he has made such examination or investigation as is necessary to enable him to express an informed opinion as to whether such covenant or condition has been complied with; and

(d) a statement as to whether, in the opinion of each such individual, such condition or covenant has been complied with.

1.4 Form of Documents Delivered to Trustee. In any case where several matters are required to be certified by, or covered by an opinion of, any specified Person, it is not necessary that all such matters be certified by, or covered by the opinion of, only one such Person, or that they be so certified or covered by only one document, but one such Person may certify or give an opinion with respect to some matters and one or more other such Persons as to other matters, and any such Person may certify or give an opinion as to such matters in one or several documents.

Any certificate or opinion of an officer of the Company may be based, insofar as it relates to legal matters, upon a certificate or opinion of, or representations by, counsel, unless such officer knows or, in the exercise of reasonable care, should know that the certificate or opinion or representations with respect to the matters upon which his certificate or opinion is based are erroneous. Any such certificate or opinion of counsel may be based, insofar as it relates to factual matters, upon a certificate or opinion of, or representations by, an officer or officers of the Company stating that the information with respect to such factual matters is in the possession of the Company unless such counsel knows that the certificate or opinion or representations with respect to such matters are erroneous.

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Where any Person is required to make, give or execute two or more applications, requests, consents, certificates, statements, opinions or other instruments under this Indenture, they may, but need not, be consolidated and form one instrument.

1.5 Acts of Holders: Record Dates.

(a) Any request, demand, authorization, direction, notice, consent, waiver or other action provided by this Indenture to be given or taken by Holders may be embodied in and evidenced by one or more instruments of substantially similar tenor signed (either physically or by means of a facsimile or an electronic transmission, provided that such electronic transmission is transmitted through the facilities of a Depository) by such Holders in person or by agent duly appointed in writing; and, except as herein otherwise expressly provided, such action shall become effective when such instrument or instruments are delivered to the Trustee and, where it is hereby expressly required, to the Company. Such instrument or instruments (and the action embodied therein and evidenced thereby) are herein sometimes referred to as the "Act" of the Holders signing such instrument or instruments. Proof of execution of any such instrument or of a writing appointing any such agent shall be sufficient for any purpose of this Indenture and (subject to Section 315 of the Trust Indenture Act) conclusive in favor of the Trustee and the Company, if made in the manner provided in this Section.

(b) The fact and date of the execution by any Person of any such instrument or writing may be proved by the affidavit of a witness of such execution or by a certificate of a notary public or other officer authorized by law to take acknowledgments of deeds, certifying that the individual signing such instrument or writing acknowledged to him the execution thereof. Where such execution is by a signer acting in a capacity other than his individual capacity, such certificate or affidavit shall also constitute sufficient proof of his authority. The fact and date of the execution of any such instrument or writing, or the authority of the Person executing the same, may also be proved in any other manner which the Trustee deems sufficient.

(c) The ownership, principal amount and serial numbers of Securities held by any Person, and the date of commencement of such Person's holding of same, shall be proved by the Security Register.

(d) Any request, demand, authorization, direction, notice, consent, waiver or other Act of the Holder of any Security shall bind every future Holder of the same Security and the Holder of every Security issued upon the registration of transfer thereof or in exchange therefor or in lieu thereof in respect of anything done, omitted or suffered to be done by the Trustee or the Company in reliance thereon, regardless of whether notation of such action is made upon such Security.

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(e) Without limiting the foregoing, a Holder entitled to give or take any action hereunder with regard to any particular Security may do so with regard to all or any part of the principal amount of such Security or by one or more duly appointed agents each of which may do so pursuant to such appointment with regard to all or any different part of such principal amount.

(f) The Company may set any day as the record date for the purpose of determining the Holders of Outstanding Securities of any series entitled to give or take any request, demand, authorization, direction, notice, consent, waiver or other Act provided or permitted by this Indenture to be given or taken by Holders of Securities of such series, but the Company shall have no obligation to do so. With regard to any record date set pursuant to this paragraph, the Holders of Outstanding Securities of the relevant series on such record date (or their duly appointed agents), and only such Persons, shall be entitled to give or take the relevant action, regardless of whether such Holders remain Holders after such record date.

1.6 Notices, Etc., to Trustee and Company.

(a) Any notice or communication by the Company or the Trustee to the others is duly given if in writing and delivered in Person or mailed by first class mail (registered or certified, return receipt requested), telecopier or overnight air courier guaranteeing next day delivery, to the others' address:

If to the Company:

Alto Ingredients, Inc.
1300 South Second Street
Pekin, IL 61554
Facsimile: (916) 446-3937
Attention: General Counsel

If to the Trustee:

[TRUSTEE], as Trustee

Facsimile: _____

(b) The Company or the Trustee, by notice to the others, may designate additional or different addresses for subsequent notices or communications.

(c) All notices and communications (other than those sent to Holders) shall be deemed to have been duly given: at the time delivered by hand, if personally delivered; three Business Days after being deposited in the mail, postage prepaid, if mailed; when receipt acknowledged, if telecopied; and the next Business Day after timely delivery to the courier, if sent by overnight air courier guaranteeing next day delivery.

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1.7 Notice to Holders: Waiver. Where this Indenture provides for notice to Holders of any event, such notice shall be sufficiently given (unless otherwise herein expressly provided) if in writing and mailed, first-class postage prepaid, to each Holder affected by such event, at his address as it appears in the Security Register, not later than the latest date, and not earlier than the earliest date, prescribed for the giving of such notice. In any case where notice to Holders is given by mail, neither the failure to mail such notice, nor any defect in any notice so mailed, to any particular Holder shall affect the sufficiency of such notice with respect to other Holders. Any notice mailed to a Holder in the manner herein prescribed shall be conclusively deemed to have been received by such Holder, regardless of whether such Holder actually receives such notice.

Where this Indenture provides for notice in any manner, such notice may be waived in writing by the Person entitled to receive such notice, either before or after the event, and such waiver shall be the equivalent of such notice. Waivers of notice by Holders shall be filed with the Trustee, but such filing shall not be a condition precedent to the validity of any action taken in reliance upon such waiver.

In case by reason of the suspension of regular mail service or by reason of any other cause it shall be impracticable to give such notice by mail, then such notification as shall be made with the approval of the Trustee shall constitute a sufficient notification for every purpose hereunder.

1.8 Conflict with Trust Indenture Act. If any provision hereof limits, qualifies or conflicts with a provision of the Trust Indenture Act that is required under such Act to be a part of and govern this Indenture, the latter provision shall control. If any provision of this Indenture modifies or excludes any provision of the Trust Indenture Act that may be so modified or excluded, the latter provision shall be deemed to apply to this Indenture as so modified or excluded, as the case may be.

1.9 Effect of Headings and Table of Contents. The Article and Section headings herein and the Table of Contents are for convenience only and shall not affect the construction hereof.

1.10 Successors and Assigns. All covenants and agreements in this Indenture by the Company shall bind their respective successors and assigns, whether so expressed or not.

1.11 Separability Clause. In case any provision in this Indenture or in the Securities shall be invalid, illegal or unenforceable, the validity, legality and enforceability of the remaining provisions shall not in any way be affected or impaired thereby.

1.12 Benefits of Indenture. Nothing in this Indenture or in the Securities express or implied, shall give to any Person, other than the parties hereto and their successors hereunder, the holders of Senior Debt and the Holders, any benefit or any legal or equitable right, remedy or claim under this Indenture.

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1.13 Governing Law. THIS INDENTURE AND THE SECURITIES SHALL BE GOVERNED BY AND CONSTRUED IN ACCORDANCE WITH THE LAWS OF THE STATE OF NEW YORK.

1.14 Legal Holidays. In any case where any Interest Payment Date, Redemption Date or Stated Maturity of any Security shall not be a Business Day at any Place of Payment, then (notwithstanding any other provision of this Indenture or of the Securities (other than a provision of the Securities of any series that specifically states that such provision shall apply in lieu of this Section 1.14)) payment of interest or principal and any premium need not be made at such Place of Payment on such date, but may be made on the next succeeding Business Day at such Place of Payment with the same force and effect as if made on the Interest Payment Date or Redemption Date, or at the Stated Maturity, provided that no interest shall accrue for the period from and after such Interest Payment Date, Redemption Date or Stated Maturity, as the case may be.

1.15 Securities in a Composite Currency, Currency Unit or Foreign Currency. Unless otherwise specified in an Officer's Certificate delivered pursuant to Section 3.1 of this Indenture with respect to a particular series of Securities, whenever for purposes of this Indenture any action may be taken by the Holders of a specified percentage in aggregate principal amount of Securities of all series or all series affected by a particular action at the time Outstanding and, at such time, there are Outstanding Securities of any series which are denominated in a coin, currency or currencies other than Dollars (including, but not limited to, any composite currency, currency units or Foreign Currency), then the principal amount of Securities of such series which shall be deemed to be Outstanding for the purpose of taking such action shall be that amount of Dollars that could be obtained for such amount at the Market Exchange Rate. For purposes of this Section 1.15, the term "Market Exchange Rate" shall mean the noon Dollar buying rate in The City of New York for cable transfers of such currency or currencies as published by the Federal Reserve Bank of New York, as of the most recent available date. If such Market Exchange Rate is not so available for any reason with respect to such currency, the Trustee shall use, in its sole discretion and without liability on its part, such quotation of the Federal Reserve Bank of New York as of the most recent available date, or quotations or rates of exchange from one or more major banks in The City of New York or in the country of issue of the currency in question, which for purposes of euros shall be Brussels, Belgium, or such other quotations or rates of exchange as the Trustee shall deem appropriate. The provisions of this paragraph shall apply in determining the equivalent principal amount in respect of Securities of a series denominated in a currency other than Dollars in connection with any action taken by Holders of Securities pursuant to the terms of this Indenture.

All decisions and determinations of the Trustee regarding the Market Exchange Rate or any alternative determination provided for in the preceding paragraph shall be in its sole discretion and shall, in the absence of manifest error, be conclusive to the extent permitted by law for all purposes and irrevocably binding upon the Issuer and all Holders.

1.16 Payment in Required Currency: Judgment Currency. The Company agrees, to the fullest extent that it may effectively do so under applicable law, that (a) if for the purpose of obtaining judgment in any court it is necessary to convert the sum due in respect of the principal of or interest on the Securities of any series (the "Required Currency") into a currency in which a judgment will be rendered (the "Judgment Currency"), the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the day on which final unappealable judgment is entered, unless such day is not a Banking Day, then, to the extent permitted by applicable law, the rate of exchange used shall be the rate at which in accordance with normal banking procedures the Trustee could purchase in The City of New York the Required Currency with the Judgment Currency on the Banking Day next preceding the day on which final unappealable judgment is entered and (b) its obligations under this Indenture to make payments in the Required Currency (i) shall not be discharged or satisfied by

any tender, or any recovery pursuant to any judgment (regardless of whether entered in accordance with subclause (a)), in any currency other than the Required Currency, except to the extent that such tender or recovery shall result in the actual receipt, by the payee, of the full amount of the Required Currency expressed to be payable in respect of such payments, (ii) shall be enforceable as an alternative or additional cause of action for the purpose of recovering in the Required Currency the amount, if any, by which such actual receipt shall fall short of the full amount of the Required Currency so expressed to be payable and (iii) shall not be affected by judgment being obtained for any other sum due under this Indenture.

1.17 Language of Notices, Etc. Any request, demand, authorization, direction, notice, consent, waiver or Act required or permitted under this Indenture shall be in the English language, except that any published notice may be in an official language of the country of publication.

1.18 Incorporators, Shareholders, Officers and Directors of the Company Exempt from Individual Liability No recourse under or upon any obligation, covenant or agreement of or contained in this Indenture or of or contained in any Security or for any claim based thereon or otherwise in respect thereof, or in any Security or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, member, officer, manager or director, as such, past, present or future, of the Company or any successor Person, either directly or through the Company or any successor Person, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment or penalty or otherwise, it being expressly understood that all such liability is hereby expressly waived and released as a condition of, and as a part of the consideration for, the execution of this Indenture and the issue of the Securities.

**ARTICLE TWO
SECURITY FORMS**

2.1 Forms Generally. The Securities of each series shall be in substantially the form set forth in this Article Two, or in such other form or forms as shall be established by or pursuant to a Board Resolution or in one or more indentures supplemental hereto, in each case with such appropriate insertions, omissions, substitutions and other variations as are required or permitted by this Indenture, and may have such letters, numbers or other marks of identification and such legends or endorsements placed thereon as may be required to comply with the rules of any securities exchange or as may, consistently herewith, be determined by the officers executing such Securities as evidenced by their execution thereof.

The definitive Securities shall be printed, lithographed or engraved on steel engraved borders or may be produced in any other manner, all as determined by the officers executing such Securities, as evidenced by their execution thereof. If the form of Securities of any series is established by action taken pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by an authorized officer or other authorized person on behalf of the Company and delivered to the Trustee at or prior to the delivery of the Company Order contemplated by Section 3.3 for the authentication and delivery of such Securities.

The forms of Global Securities of any series shall have such provisions and legends as are customary for Securities of such series in global form, including without limitation any legend required by the Depository for the Securities of such series.

2.2 Form of Face of Security. **[If the Security is an Original Issue Discount Security, insert—FOR PURPOSES OF SECTION 1275 OF THE UNITED STATES INTERNAL REVENUE CODE OF 1986, AS AMENDED, THE AMOUNT OF THE ORIGINAL ISSUE DISCOUNT IS _____, THE ISSUE DATE IS _____, 20__ [AND] [_____] THE YIELD TO MATURITY IS _____ [_____] [AND THE ORIGINAL ISSUE DISCOUNT FOR THE SHORT ACCRUAL PERIOD IS _____ AND THE METHOD USED TO DETERMINE THE YIELD THEREFOR IS _____]]**

[Insert any other legend required by the Code or the regulations thereunder.]

[If a Global Security,—insert legend required by Section 2.4 of the Indenture] [If applicable, insert —UNLESS THIS SECURITY IS PRESENTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY, A NEW YORK CORPORATION, TO THE COMPANY OR ITS AGENT FOR REGISTRATION OF TRANSFER, EXCHANGE OR PAYMENT, AND ANY SECURITY ISSUED IS REGISTERED IN THE NAME OF CEDE & CO. OR SUCH OTHER NAME AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY (AND ANY PAYMENT IS MADE TO CEDE & CO. OR TO SUCH OTHER ENTITY AS IS REQUESTED BY AN AUTHORIZED REPRESENTATIVE OF THE DEPOSITORY TRUST COMPANY), ANY TRANSFER, PLEDGE OR OTHER USE HEREOF FOR VALUE OR OTHERWISE BY OR TO ANY PERSON IS WRONGFUL SINCE THE REGISTERED OWNER HEREOF, CEDE & CO., HAS AN INTEREST HEREIN.]

ALTO INGREDIENTS, INC.

[TITLE OF SECURITY]

No _____

U.S. \$ _____

[CUSIP No. _____]

ALTO INGREDIENTS, INC., a company duly incorporated under the laws of the State of Delaware (herein called the "Company," which term includes any successor or resulting Person under the Indenture hereinafter referred to), for value received, hereby promises to pay to _____, or registered assigns, the principal sum of _____ United States Dollars on _____. **[If the Security is to bear interest prior to Maturity, insert—, and to pay interest thereon from _____ or from the most recent Interest Payment Date to which interest has been paid or duly provided for, semi-annually on _____ and _____ in each year, commencing _____, at the rate of _____ % per annum, until the principal hereof is paid or made available for payment [if applicable, insert—, and at the rate of _____ % per annum on any overdue principal and premium and on any installment of interest (to the extent that the payment of such interest shall be legally enforceable)].** The interest so payable, and punctually paid or duly provided for, on any Interest Payment Date will, as provided in such Indenture, be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest, which shall be the _____ or _____ (regardless of whether a Business Day), as the case may be, next preceding such Interest Payment Date. Any such interest not so punctually paid or duly provided for will forthwith cease to be payable to the Holder on such Regular Record Date and may either be paid to the Person in whose name this Security (or one or more Predecessor Securities) is registered at the close of business on a Special Record Date for the payment of such Defaulted Interest to be fixed by the Trustee, notice whereof shall be given to Holders of Securities of this series not less than 10 days prior to such Special Record Date, or be paid at any time in any other lawful manner not inconsistent with the requirements of any securities exchange on which the Securities of this series may be listed, and upon such notice as may be required by such exchange, all as more fully provided in said Indenture].

[If the Security is not to bear interest prior to Maturity, insert—The principal of this Security shall not bear interest except in the case of a default in payment of principal upon acceleration, upon redemption or at Stated Maturity and in such case the overdue principal of this Security shall bear interest at the rate of ____% per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such default in payment to the date payment of such principal has been made or duly provided for. Interest on any overdue principal shall be payable on demand. Any such interest on any overdue principal that is not so paid on demand shall bear interest at the rate of ____% per annum (to the extent that the payment of such interest shall be legally enforceable), which shall accrue from the date of such demand for payment to the date payment of such interest has been made or duly provided for, and such interest shall also be payable on demand.]

[If a Global Security, insert—Payment of the principal of (and premium, if any) and [if applicable, insert—any such] interest on this Security will be made by transfer of immediately available funds to a bank account in _____ designated by the Holder in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts [state other currency].]

[If a Definitive Security, insert—Payment of the principal of (and premium, if any) and [if applicable, insert—any such] interest on this Security will be made at the office or agency of the Company maintained for that purpose in _____, in such coin or currency of the United States of America as at the time of payment is legal tender for payment of public and private debts] [state other currency] [or subject to any laws or regulations applicable thereto and to the right of the Company (as provided in the Indenture) to rescind the designation of any such Paying Agent, at the [main] offices of _____ in _____, or at such other offices or agencies as the Company may designate, by [United States Dollar] [state other currency] check drawn on, or transfer to a [United States Dollar] account maintained by the payee with, a bank in The City of New York (so long as the applicable Paying Agency has received proper transfer instructions in writing at least ____ days prior to the payment date)] [if applicable, insert—; provided, however, that payment of interest may be made at the option of the Company by [United States Dollar] [state other currency] check mailed to the addresses of the Persons entitled thereto as such addresses shall appear in the Security Register][or by transfer to a [United States Dollar] [state other currency] account maintained by the payee with a bank in The City of New York[state other Place of Payment] (so long as the applicable Paying Agent has received proper transfer instructions in writing by the record date prior to the applicable Interest Payment Date)].]

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Reference is hereby made to the further provisions of this Security set forth on the reverse hereof, which further provisions shall for all purposes have the same effect as if set forth at this place.

Unless the certificate of authentication hereon has been executed by the Trustee referred to on the reverse hereof by manual signature, this Security shall not be entitled to any benefit under the Indenture or be valid or obligatory for any purpose.

IN WITNESS WHEREOF, the Company has caused this instrument to be duly executed.

Dated: _____

ALTO INGREDIENTS, INC.

By: _____

2.3 **Form of Reverse of Security.** This Security is one of a duly authorized issue of subordinated securities of the Company (herein called the "Securities"), issued and to be issued in one or more series under an Indenture, dated as of _____, 20__ (herein called the "Indenture"), between the Company and [TRUSTEE] (herein called the "Trustee," which term includes any successor trustee under the Indenture), to which Indenture and all indentures supplemental thereto reference is hereby made for a statement, of the respective rights, limitations of rights, duties and immunities thereunder of the Company, the Trustee and the Holders of the Securities and of the terms upon which the Securities are, and are to be, authenticated and delivered. As provided in the Indenture, the Securities may be issued in one or more series, which different series may be issued in various aggregate principal amounts, may mature at different times, may bear interest, if any, at different rates, may be subject to different redemption provisions, if any, may be subject to different sinking, purchase or analogous funds, if any, may be subject to different covenants and Events of Default and may otherwise vary as in the Indenture provided or permitted. This Security is one of the series designated on the face hereof [, limited in aggregate principal amount to \$_____].

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This security is the general, unsecured, subordinated obligation of the Company.

[If applicable, insert—The Securities of this series are subject to redemption upon not less than ____ days' notice by mail, [if applicable, insert, —(1) on _____ in any year commencing with the year ____ and ending with the year ____ through operation of the sinking fund for this series at a Redemption Price equal to 100% of the principal amount, and (2)] at any time [on or after _____, 20__], as a whole or in part, at the election of the Company, at the following Redemption Prices (expressed as percentages of the principal amount): If redeemed [on or before _____, ____%, and if redeemed] during the 12-month period beginning _____ of the years indicated,

Year

Redemption Price

Year

Redemption Price

and thereafter at a Redemption Price equal to % of the principal amount, together in the case of any such redemption[if applicable, insert—(whether through operation of the sinking fund or otherwise)] with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant record dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert—The Securities of this series are subject to redemption upon not less than ____ nor more than ____ days' notice by mail, (1) on _____ in any year commencing with the year and ending with the year ____ through operation of the sinking fund for this series at the Redemption Prices for redemption through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below, and (2) at anytime [on or after _____], as a whole or in part, at the election of the Company, at the Redemption Prices for redemption otherwise than through operation of the sinking fund (expressed as percentages of the principal amount) set forth in the table below: If redeemed during the 12-month period beginning _____ of the years indicated,

Year	Redemption Price for Redemption Through Operation of the Sinking Fund	Redemption Price for Redemption Otherwise Than Through Operation of the Sinking Fund
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and thereafter at a Redemption Price equal to ____% of the principal amount, together in the case of any such redemption (whether through operation of the sinking fund or otherwise) with accrued interest to the Redemption Date, but interest installments whose Stated Maturity is on or prior to such Redemption Date will be payable to the Holders of such Securities, or one or more Predecessor Securities, of record at the close of business on the relevant record dates referred to on the face hereof, all as provided in the Indenture.]

[If applicable, insert—Notwithstanding the foregoing, the Company may not, prior to _____, redeem any Securities of this series as contemplated by [clause (2) of] the preceding paragraph as a part of, or in anticipation of, any refunding operation by the application, directly or indirectly, of moneys borrowed having an interest cost to the Company (calculated in accordance with generally accepted financial practice) of less than ____% per annum.]

[If applicable, insert—The sinking fund for this series provides for the redemption on _____ in each year beginning with the year ____ and ending with the year ____ of [not less than] \$ _____ [(*“mandatory sinking fund”)] and not more than \$ _____] aggregate principal amount of Securities of this series. [Securities of this series acquired or redeemed by the Company otherwise than through [mandatory] sinking fund payments may be credited against subsequent [mandatory] sinking fund payments otherwise required to be made [If applicable, insert— in the inverse order in which they become due].]

[If the Securities are subject to redemption in part of any kind, insert—In the event of redemption of this Security in part only, a new Security or Securities of this series and of like tenor for the unredeemed portion hereof will be issued in the name of the Holder hereof upon the cancellation hereof.]

[If applicable, insert—The Securities of this series are not redeemable prior to Stated Maturity.]

[If the Security is not an Original Issue Discount Security, insert—If an Event of Default with respect to Securities of this series shall occur and be continuing, the principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture.]

[If the Security is an Original Issue Discount Security, insert—If an Event of Default with respect to Securities of this series shall occur and be continuing, an amount of principal of the Securities of this series may be declared due and payable in the manner and with the effect provided in the Indenture. Such amount shall be equal to—insert formula for determining the amount. Upon payment (i) of the amount of principal so declared due and payable and (ii) of interest on any overdue principal and overdue interest (in each case to the extent that the payment of such interest shall be legally enforceable), all of the Company’s obligations in respect of the payment of the principal of and interest, if any, on the Securities of this series shall terminate.]

The Indenture permits, with certain exceptions as therein provided, the amendment thereof and the modification of the rights and obligations of the Company and the rights of the Holders of the Securities of each series to be affected under the Indenture at any time by the Company and the Trustee with the consent of the Holders of a majority in principal amount of the Securities at the time Outstanding of each series to be affected. The Indenture also contains provisions permitting the Holders of specified percentages in principal amount of the Securities of each series at the time Outstanding, on behalf of the Holders of all Securities of such series, to waive compliance by the Company with certain provisions of the Indenture and certain past defaults under the Indenture and their consequences. Any such consent or waiver by the Holder of this Security shall be conclusive and binding upon such Holder and upon all future Holders of this Security and of any Security issued upon the registration of transfer hereof or in exchange herefor or in lieu hereof, regardless of whether notation of such consent or waiver is made upon this Security.

No reference herein to the Indenture and no provision of this Security or of the Indenture shall alter or impair the obligation of the Company, which is absolute and unconditional, to pay the principal of (and premium, if any) and interest on this Security at the times, place(s) and rate, and in the coin or currency, herein prescribed.

[If a Global Security, insert—This Global Security or portion hereof may not be exchanged for Definitive Securities of this series except in the limited circumstances provided in the Indenture. The holders of beneficial interests in this Global Security will not be entitled to receive physical delivery of Definitive Securities except as described in the Indenture and will not be considered the Holders thereof for any purpose under the Indenture.]

[If a Definitive Security, insert—As provided in the Indenture and subject to certain limitations therein set forth, the transfer of this Security is registerable in the Security Register, upon surrender of this Security for registration of transfer at the office or agency of the Company in [If applicable, insert—any place where the principal of and any premium and interest on this Security are payable] [If applicable, insert—The City of New York [, or, subject to any laws or regulations applicable thereto and to the right of the Company (limited as provided in the Indenture) to rescind the designation of any such transfer agent, at the [main] offices of _____ in _____ or at such other offices or agencies as the Company may designate]], duly endorsed by, or accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed by, the Holder hereof or his attorney duly authorized in writing, and thereupon one or more new Securities of this series and of like tenor, of authorized denominations and for the same aggregate principal amount, will be issued to the designated transferee or transferees.]

The Securities of this series are issuable only in registered form without coupons in denominations of U.S. \$ _____ and any integral multiple thereof. As provided in the Indenture and subject to certain limitations therein set forth, Securities of this series are exchangeable for a like aggregate principal amount of Securities of this series and of like tenor of a different authorized denomination, as requested by the Holder surrendering the same.

No service charge shall be made for any such registration of transfer or exchange, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge payable in connection therewith.

Prior to due presentment of this Security for registration of transfer, the Company, the Trustee and any agent of the Company or the Trustee may treat the Person in whose name this Security is registered as the owner hereof for all purposes, regardless of whether this Security be overdue, and none of the Company, the Trustee nor any such agent shall be affected by notice to the contrary.

This Security is subordinated in right of payment to Senior Debt, to the extent and in the manner provided in the Indenture.

No recourse under or upon any obligation, covenant or agreement of or contained in the Indenture or of or contained in any Security, or for any claim based thereon or otherwise in respect thereof, or in any Security, or because of the creation of any indebtedness represented thereby, shall be had against any incorporator, stockholder, member, officer, manager or director, as such, past, present or future, of the Company or of any successor Person, either directly or through the Company or any successor Person, whether by virtue of any constitution, statute or rule of law, or by the enforcement of any assessment, penalty or otherwise; it being expressly understood that all such liability is hereby expressly waived and released by the acceptance hereof and as a condition of, and as part of the consideration for, the Securities and the execution of the Indenture.

The Indenture provides that the Company (a) will be discharged from any and all obligations in respect of the Securities (except for certain obligations described in the Indenture), or (b) need not comply with certain restrictive covenants of the Indenture, in each case if the Company deposits, in trust, with the Trustee money or U.S. Government Obligations (or a combination thereof) which through the payment of interest thereon and principal thereof in accordance with their terms will provide money, in an amount sufficient to pay all the principal of and interest on the Securities, but such money need not be segregated from other funds except to the extent required by law.

Except as otherwise defined herein, all terms used in this Security which are defined in the Indenture shall have the meanings assigned to them in the Indenture.

[If a Definitive Security, insert as a separate page—

FOR VALUE RECEIVED, the undersigned hereby sell(s), assign(s) and transfer(s) unto

(Please Print or Typewrite Name and Address of Assignee)

the within instrument of ALTO INGREDIENTS, INC. and does hereby irrevocably constitute and appoint _____ Attorney to transfer said instrument on the books of the within-named Company, with full power of substitution in the premises.

Please Insert Social Security or Other Identifying Number of Assignee:

Dated: _____

(Signature)

NOTICE: The signature to this assignment must correspond with the name as written upon the face of the within instrument in every particular, without alteration or enlargement or any change whatever.]

2.4 Global Securities. Every Global Security authenticated and delivered hereunder shall bear a legend in substantially the following form:

THIS SECURITY IS A GLOBAL SECURITY WITHIN THE MEANING OF THE INDENTURE HEREINAFTER REFERRED TO AND IS REGISTERED IN THE NAME OF A DEPOSITARY OR A NOMINEE THEREOF. THIS SECURITY MAY NOT BE TRANSFERRED TO, OR REGISTERED OR EXCHANGED FOR SECURITIES REGISTERED IN THE NAME OF, ANY PERSON OTHER THAN THE DEPOSITARY OR A NOMINEE THEREOF AND NO SUCH TRANSFER MAY BE REGISTERED, EXCEPT IN THE LIMITED CIRCUMSTANCES DESCRIBED IN THE INDENTURE.

EVERY SECURITY AUTHENTICATED AND DELIVERED UPON REGISTRATION OF TRANSFER OF, OR IN EXCHANGE FOR OR IN LIEU OF, THIS SECURITY SHALL BE A GLOBAL SECURITY SUBJECT TO THE FOREGOING, EXCEPT IN SUCH LIMITED CIRCUMSTANCES.

If Securities of a series are issuable in whole or in part in the form of one or more Global Securities, as specified as contemplated by Section 3.1, then, notwithstanding clause (i) of Section 3.1 and the provisions of Section 3.2, any Global Security shall represent such of the Outstanding Securities of such series as shall be specified therein and may provide that it shall represent the aggregate amount of Outstanding Securities from time to time endorsed thereon and that the aggregate amount of Outstanding Securities represented thereby may from time to time be reduced or increased, as the case may be, to reflect exchanges. Any endorsement of a Global Security to reflect the amount, or any reduction or increase in the amount, of Outstanding Securities represented thereby shall be made in such manner and upon instructions given by such Person or Persons as shall be specified therein or in a Company Order. Subject to the provisions of Section 3.3, Section 3.4 and Section 3.5, the Trustee shall deliver and redeliver any Global Security in the manner and upon instructions given by the Person or Persons specified therein or in the applicable Company Order. Any instructions by the Company with respect to endorsement or delivery or redelivery of a Global Security shall be in a Company Order (which need not comply with Section 1.3 and need not be accompanied by an Opinion of Counsel).

The provisions of the last sentence of Section 3.3 shall apply to any Security represented by a Global Security if such Security was never issued and sold by the Company and the Company delivers to the Trustee the Global Security together with a Company Order (which need not comply with Section 1.3 and need not be accompanied by an Opinion of Counsel) with regard to the reduction or increase, as the case may be, in the principal amount of Securities represented thereby, together with the written statement contemplated by the last sentence of Section 3.3.

2.5 Form of Trustee's Certificate of Authentication. The Trustee's certificate(s) of authentication shall be in substantially the following form:

This is one of the Securities of the series designated [insert title of applicable series] referred to in the within-mentioned Indenture.

as Trustee

By: _____
As Authenticating Officer

3.1 Amount Unlimited; Issuable in Series. The aggregate principal amount of Securities which may be authenticated and delivered under this Indenture is unlimited.

The Securities may be issued in one or more series. There shall be established in or pursuant to a Board Resolution, and set forth, or determined in the manner provided, in an Officer's Certificate, or established in one or more indentures supplemental hereto, prior to the issuance of Securities of any series,

(a) the title of the Securities of the series (which shall distinguish the Securities of the series from all other Securities and which may be part of a series of Securities previously issued);

(b) any limit upon the aggregate principal amount of the Securities of the series which may be authenticated and delivered under this Indenture (except for Securities authenticated and delivered upon registration of transfer of, or in exchange for, or in lieu of, other Securities of the series pursuant to Section 3.4, Section 3.5, Section 3.6, Section 9.6 or Section 11.7 and except for any Securities which, pursuant to Section 3.3, are deemed never to have been authenticated and delivered hereunder);

(c) the Person to whom any interest on a Security of the series shall be payable, if other than the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest;

(d) the date or dates on which the principal of the Securities of the series is payable or the method of determination thereof;

(e) the rate or rates at which the Securities of the series shall bear interest, if any, or the formula, method or provision pursuant to which such rate or rates are determined, the date or dates from which such interest shall accrue or the method of determination thereof, the Interest Payment Dates on which such interest shall be payable and the Regular Record Date for the interest payable on any Interest Payment Date;

(f) the place or places where, subject to the provisions of Section 10.2, the principal of and any premium and interest on Securities of the series shall be payable, Securities of the series may be surrendered for registration of transfer, Securities of the series may be surrendered for exchange and notices, and demands to or upon the Company in respect of the Securities of the series and this Indenture may be served;

(g) the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series may be redeemed, in whole or in part, at the option of the Company;

(h) the obligation, if any, of the Company to redeem or purchase Securities of the series pursuant to any sinking fund or analogous provisions or at the option of a Holder thereof and the period or periods within which, the price or prices at which and the terms and conditions upon which Securities of the series shall be redeemed or purchased, in whole or in part, pursuant to such obligation;

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(i) if other than denominations of \$1,000 and any integral multiple thereof, the denominations in which Securities of the series shall be issuable;

(j) whether payment of principal of and premium, if any, and interest, if any, on the Securities of the series shall be without deduction for taxes, assessments or governmental charges paid by Holders of the series;

(k) if other than the principal amount thereof, the portion of the principal amount of Securities of the series which shall be payable upon declaration of acceleration of the Maturity thereof pursuant to Section 5.2;

(l) if the amount of payments of principal of and any premium or interest on the Securities of the series may be determined with reference to an index, the manner in which such amounts shall be determined;

(m) if and as applicable, that the Securities of the series shall be issuable in whole or in part in the form of one or more Global Securities and, in such case, the Depository or Depositories for such Global Security or Global Securities and any circumstances other than those set forth in Section 3.5 in which any such Global Security may be transferred to, and registered and exchanged for Securities registered in the name of, a Person other than the Depository for such Global Security or a nominee thereof and in which any such transfer may be registered;

(n) any deletions from, modifications of or additions to the Events of Default set forth in Section 5.1 or the covenants of the Company set forth in Article Ten with respect to the Securities of such series;

(o) whether and under what circumstances the Company will pay additional amounts on the Securities of the series held by a Person who is not a U.S. Person in respect of any tax, assessment or governmental charge withheld or deducted and, if so, whether the Company will have the option to redeem the Securities of the series rather than pay such additional amounts;

(p) if the Securities of the series are to be issuable in definitive form (whether upon original issue or upon exchange of a temporary Security of such series) only upon receipt of certain certificates or other documents or satisfaction of other conditions, the form and terms of such certificates, documents or conditions;

(q) if the Securities of the series are to be convertible into or exchangeable for any other security or property of the Company, including, without limitation, securities of another Person held by the Company or its Affiliates and, if so, the terms thereof;

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(r) if other than as provided in Section 13.2 and Section 13.3, the means of Legal Defeasance or Covenant Defeasance as may be specified for the Securities of the series;

(s) if other than the Trustee, the identity of the initial Security Registrar and any initial Paying Agent; and

(t) any other terms of the series (which terms shall not be inconsistent with the provisions of this Indenture).

All Securities of any one series shall be substantially identical except as to denomination and except as may otherwise be provided in or pursuant to the Board Resolution referred to above and (subject to Section 3.3) set forth, or determined in the manner provided, in the Officer's Certificate referred to above or in any such indenture supplemental hereto.

All Securities of any one series need not be issued at the same time and, unless otherwise provided, a series may be reopened, without the consent of the Holders, for increases in the aggregate principal amount of such series of Securities and issuances of additional Securities of such series or for the establishment of additional terms with respect to the Securities of such series.

If any of the terms of the series are established by action taken by or pursuant to a Board Resolution, a copy of an appropriate record of such action shall be certified by an authorized officer or other authorized person on behalf of the Company and delivered to the Trustee at or prior to the delivery of the Officer's Certificate setting forth, or providing the manner for determining, the terms of the series.

With respect to Securities of a series subject to a Periodic Offering, such Board Resolution or Officer's Certificate may provide general terms for Securities of such series and provide either that the specific terms of particular Securities of such series shall be specified in a Company Order or that such terms shall be determined by the Company or one or more agents thereof designated in an Officer's Certificate, in accordance with a Company Order.

3.2 Denominations. The Securities of each series shall be issuable in registered form without coupons in such denominations as shall be specified as contemplated by Section 3.1. In the absence of any such provisions with respect to the Securities of any series, the Securities of such series shall be issuable in denominations of \$1,000 and any integral multiple thereof.

3.3 Execution, Authentication, Delivery and Dating The Securities shall be executed on behalf of the Company by its Chairman of the Board, its Chief Executive Officer, its President, its Chief Financial Officer or any of its Vice Presidents and need not be attested. The signature of any of these officers on the Securities may be manual or facsimile.

Securities bearing the manual or facsimile signatures of individuals who were at any time the proper officers of the Company shall bind the Company notwithstanding that such individuals or any of them have ceased to hold such offices prior to the authentication and delivery of such Securities or did not hold such offices at the date of such Securities.

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At any time and from time to time after the execution and delivery of this Indenture, the Company may deliver Securities of any series executed by the Company to the Trustee for authentication, together with a Company Order for the authentication and delivery of such Securities, and the Trustee in accordance with the Company Order shall authenticate and deliver such Securities; provided, however, that in the case of Securities offered in a Periodic Offering, the Trustee shall authenticate and deliver such Securities from time to time in accordance with such other procedures (including, without limitation, the receipt by the Trustee of oral or electronic instructions from the Company or its duly authorized agents, thereafter promptly confirmed in writing) acceptable to the Trustee as may be specified by or pursuant to a Company Order delivered to the Trustee prior to the time of the first authentication of Securities of such series. If the forms or terms of the Securities of the series have been established in or pursuant to one or more Board Resolutions as permitted by Section 2.1 and Section 3.1, in authenticating such Securities, and accepting the additional responsibilities under this Indenture in relation to such Securities, the Trustee shall be entitled to receive such documents as it may reasonably request. The Trustee shall also be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, an Opinion of Counsel stating,

(a) if the form or forms of such Securities has been established in or pursuant to a Board Resolution as permitted by Section 2.1, that each such form has been established in conformity with the provisions of this Indenture;

(b) if the terms of such Securities have been, or in the case of Securities of a series offered in a Periodic Offering will be, established in or pursuant to a Board Resolution as permitted by Section 3.1, that such terms have been, or in the case of Securities of a series offered in a Periodic Offering will be, established in conformity with the provisions of this Indenture, subject, in the case of Securities of a series offered in a Periodic Offering, to any conditions specified in such Opinion of Counsel; and

(c) that such Securities when authenticated and delivered by the Trustee and issued by the Company in the manner and subject to any conditions and assumptions specified in such Opinion of Counsel, will constitute valid and legally binding obligations of the Company enforceable in accordance with their terms, subject to the following limitations: (i) bankruptcy, insolvency, moratorium, reorganization, liquidation, fraudulent conveyance or transfer and other similar laws of general applicability relating to or affecting the enforcement of creditors' rights, or to general equity principles, (ii) the availability of equitable remedies being subject to the discretion of the court to which application therefor is made; and (iii) such other usual and customary matters as shall be specified in such Opinion of Counsel.

If such form or forms or terms have been so established, the Trustee shall not be required to authenticate such Securities if the issue of such Securities pursuant to this Indenture will affect the Trustee's own rights, duties or immunities under the Securities and this Indenture or otherwise in a manner which is not reasonably acceptable to the Trustee.

Notwithstanding the provisions of Section 3.1 and of the preceding paragraph, if all Securities of a series are not to be originally issued at one time, it shall not be necessary to deliver the Officer's Certificate otherwise required pursuant to Section 3.1 or the Company Order and Opinion of Counsel otherwise required pursuant to such preceding paragraph at or prior to the time of authentication of each Security of such series if such documents are delivered at or prior to the authentication upon original issuance of the first Security of such series to be issued.

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With respect to Securities of a series offered in a Periodic Offering, the Trustee may rely, as to the authorization by the Company of any of such Securities, on the form or forms and terms thereof and the legality, validity, binding effect and enforceability thereof, upon the Opinion of Counsel and the other documents delivered pursuant to Section 2.1 and Section 3.1 and this Section, as applicable, in connection with the first authentication of Securities of such series.

Each Security shall be dated the date of its authentication.

No Security shall be entitled to any benefit under this Indenture or be valid or obligatory for any purpose unless there appears on such Security a certificate of authentication substantially in the form provided for herein executed by the Trustee by manual signature of an authorized officer, and such certificate upon any Security shall be conclusive evidence, and the only evidence, that such Security has been duly authenticated and delivered hereunder and is entitled to the benefits of this Indenture. Notwithstanding the foregoing, if any Security shall have been authenticated and delivered hereunder but never issued and sold by the Company, and the Company shall deliver such Security to the Trustee for cancellation as provided in Section 3.9 for all purposes of this Indenture such Security shall be deemed never to have been authenticated and delivered hereunder and shall never be entitled to the benefits of this Indenture.

3.4 Temporary Securities. Pending the preparation of Definitive Securities of any series, the Company may execute, and upon Company Order the Trustee shall authenticate and deliver, temporary Securities which are printed, lithographed, typewritten, mimeographed or otherwise produced, in any authorized denomination, substantially

of the tenor of the Definitive Securities in lieu of which they are issued and with such appropriate insertions, omissions, substitutions and other variations as the officers executing such Securities may determine, as evidenced by their execution of such Securities.

If temporary Securities of any series are issued, the Company will cause Definitive Securities of that series to be prepared without unreasonable delay. After the preparation of Definitive Securities of such series, the temporary Securities of such series shall be exchangeable for Definitive Securities of such series upon surrender of the temporary Securities of such series at the office or agency of the Company in a Place of Payment for that series, without charge to the Holder. Upon surrender for cancellation of any one or more temporary Securities of any series the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a like principal amount of Definitive Securities of the same series and tenor of authorized denominations. Until so exchanged the temporary Securities of any series shall in all respects be entitled to the same benefits under this Indenture as Definitive Securities of such series.

3.5 Registration, Registration of Transfer and Exchange. The Company shall cause to be kept at the office or agency of the Company in the Borough of Manhattan, the City of New York or in any other office or agency of the Company in a Place of Payment required by Section 10.2 a register (the register maintained in such office being herein sometimes referred to as the “Security Register”) in which, subject to such reasonable regulations as it may prescribe, the Company shall provide for the registration of Securities and of transfers of Securities. The Trustee is hereby appointed as the initial “Security Registrar” for the purpose of registering Securities and transfers of Securities as herein provided, and its corporate trust office in New York City, which, at the date hereof, is located at [____], New York, New York [____], is the initial office or agency in the Borough of Manhattan where the Securities Register will be maintained. The Company may at any time replace such Security Registrar, change such office or agency or act as its own Security Registrar. The Company will give prompt written notice to the Trustee of any change of the Security Registrar or of the location of such office or agency.

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Upon surrender for registration of transfer of any Security of any series at the office or agency maintained pursuant to Section 10.2 for such purpose, the Company shall execute, and the Trustee shall authenticate and deliver, in the name of the designated transferee or transferees, one or more new Securities of the same series and tenor, of any authorized denominations and of a like aggregate principal amount.

At the option of the Holder, Securities of any series (except a Global Security) may be exchanged for other Securities of the same series and tenor, of any authorized denominations and of a like aggregate principal amount, upon surrender of the Securities to be exchanged at such office or agency. Whenever any Securities are so surrendered for exchange, the Company shall execute and the Trustee shall authenticate and deliver the Securities, which the Holder making the exchange is entitled to receive.

All Securities issued upon any registration of transfer or exchange of Securities shall be the valid obligations of the Company evidencing the same debt, and entitled to the same benefits under this Indenture, as the Securities surrendered upon such registration of transfer or exchange.

Every Security presented or surrendered for registration of transfer or for exchange shall (if so required by the Company or the Trustee) be duly endorsed, or be accompanied by a written instrument of transfer in form satisfactory to the Company and the Security Registrar duly executed, by the Holder thereof or his attorney duly authorized in writing.

No service charge shall be made for any registration of transfer or exchange of Securities, but the Company may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any registration of transfer or exchange of Securities, other than exchanges pursuant to Section 3.4, Section 9.6 or Section 11.7 not involving any transfer.

The Company shall not be required (a) to issue, register the transfer of or exchange Securities of any series during a period beginning at, the opening of business 15 days before the day of the mailing of a notice of redemption of Securities of that series selected for redemption under Section 11.3 and ending at the close of business on the day of such mailing, or (b) to register the transfer of or exchange any Security so selected for redemption in whole or in part, except the unredeemed portion of any Security being redeemed in part.

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Notwithstanding any other provisions of this Indenture and except as otherwise specified with respect to any particular series of Securities as contemplated by Section 3.1, a Global Security representing all or a portion of the Securities of a series may not be transferred, except as a whole by the Depository for such series to a nominee of such Depository or by a nominee of such Depository to such Depository or another nominee of such Depository or by such Depository or any such nominee to a successor Depository for such series or a nominee of such successor Depository. Every Security authenticated and delivered upon registration of, transfer of, or in exchange for or in lieu of, a Global Security shall be a Global Security except as provided in the two paragraphs immediately following.

If at any time the Depository for any Securities of a series represented by one or more Global Securities notifies the Company that it is unwilling or unable to continue as Depository for such Securities or if at any time the Depository for such Securities shall no longer be eligible to continue as Depository under Section 3.1 or ceases to be a clearing agency registered under the Exchange Act, the Company shall appoint a successor Depository with respect to such Securities. If a successor Depository for such Securities is not appointed by the Company within 90 days after the Company receives such notice or becomes aware of such ineligibility, the Company’s election pursuant to Section 3.1 that such Securities be represented by one or more Global Securities shall no longer be effective and the Company will execute and the Trustee, upon receipt of a Company Order for the authentication and delivery of Definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form without coupons, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such Securities in exchange for such Global Security or Securities registered in the names of such Persons as the Depository shall direct.

The Company may at any time and in its sole discretion determine that the Securities of any series issued in the form of one or more Global Securities shall no longer be represented by a Global Security or Securities. In such event, the Company will execute and the Trustee, upon receipt of a Company Order for the authentication and delivery of the Definitive Securities of such series, will authenticate and deliver, Securities of such series in definitive registered form without coupons, in any authorized denominations, in an aggregate principal amount equal to the principal amount of the Global Security or Securities representing such Securities in exchange for such Global Security or Securities registered in the names of such Persons as the Depository shall direct.

If specified by the Company pursuant to Section 3.1 with respect to Securities represented by a Global Security, the Depository for such Global Security may surrender such Global Security in exchange in whole or in part for Securities of the same series and tenor in definitive registered form on such terms as are acceptable to the Company, the Trustee and such Depository. Thereupon, the Company shall execute, and the Trustee, upon receipt of a Company Order for the authentication and delivery of Securities in definitive registered form, shall authenticate and deliver, without service charge,

(a) to the Person specified by such Depository a new Security or Securities of the same series and tenor, of any authorized denominations as requested by such Person, in an aggregate principal amount equal to and in exchange for such Person’s beneficial interest in the Global Security; and

(b) to such Depository a new Global Security in a denomination equal to the difference, if any, between the principal amount of the surrendered Global Security and the aggregate principal amount of Securities authenticated and delivered pursuant to clause (a) above.

Every Person who takes or holds any beneficial interest in a Global Security agrees that:

- (a) the Company and the Trustee may deal with the Depository as sole owner of the Global Security and as the authorized representative of such Person;
- (b) such Person's rights in the Global Security shall be exercised only through the Depository and shall be limited to those established by law and agreement between such Person and the Depository and/or direct and indirect participants of the Depository;
- (c) the Depository and its participants make book-entry transfers of beneficial ownership among, and receive and transmit distributions of principal and interest on the Global Securities to, such Persons in accordance with their own procedures; and
- (d) none of the Company, the Trustee, nor any agent of any of them will have any responsibility or liability for any aspect of the records relating to or payments made on account of beneficial ownership interests of a Global Security or for maintaining, supervising or reviewing any records relating to such beneficial ownership interests.

3.6 Mutilated, Destroyed, Lost and Stolen Securities. If any mutilated Security is surrendered to the Trustee, together with, in proper cases, such security or indemnity as may be required by the Company or the Trustee to save each of them and any agent of any of them harmless, the Company shall execute and the Trustee shall authenticate and deliver in exchange therefor a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

If there shall be delivered to the Company and the Trustee (a) evidence to their satisfaction of the destruction, loss or theft of any Security and (b) such security or indemnity as may be required by them to save each of them and any agent of either of them harmless, then, in the absence of notice to the Company or the Trustee that such Security has been acquired by a bona fide purchaser, the Company shall execute and upon its request the Trustee shall authenticate and deliver, in lieu of any such destroyed, lost or stolen Security, a new Security of the same series and of like tenor and principal amount and bearing a number not contemporaneously outstanding.

In case any such mutilated, destroyed, lost or stolen Security has become or is about to become due and payable, the Company in its discretion may, instead of issuing a new Security, pay such Security.

Upon the issuance of any new Security under this Section, the Company may require the payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in relation thereto and any other expenses (including the fees and expenses of the Trustee) connected therewith.

Every new Security of any series issued pursuant to this Section in lieu of any destroyed, lost or stolen Security shall constitute an original additional contractual obligation of the Company regardless of whether the destroyed, lost or stolen Security shall be at any time enforceable by anyone, and shall be entitled to all the benefits of this Indenture equally and proportionately with any and all other Securities of that series duly issued hereunder.

The provisions of this Section are exclusive and shall preclude (to the extent lawful) all other rights and remedies with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities.

3.7 Payment of Interest: Interest Rights Preserved. Except as otherwise provided as contemplated by [Section 3.1](#) with respect to any series of Securities, interest on any Security which is payable, and is punctually paid or duly provided for, on any Interest Payment Date shall be paid to the Person in whose name that Security (or one or more Predecessor Securities) is registered at the close of business on the Regular Record Date for such interest.

Any interest on any Security of any series which is payable, but is not punctually paid or duly provided for, on any Interest Payment Date (herein called **Defaulted Interest**) shall forthwith cease to be payable to the Holder on the relevant Regular Record Date by virtue of having been such Holder, and such Defaulted Interest may be paid by the Company, at its election in each case, as provided in clause (a) or (b) below:

- (a) The Company may elect to make payment of any Defaulted Interest to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on a Special Record Date for the payment of such Defaulted Interest, which shall be fixed in the following manner. The Company shall notify the Trustee in writing of the amount of Defaulted Interest proposed to be paid on each Security of such series and the date of the proposed payment, and at the same time the Company shall deposit with the Trustee an amount of money equal to the aggregate amount proposed to be paid in respect of such Defaulted Interest or shall make arrangements satisfactory to the Trustee for such deposit prior to the date of the proposed payment, such money when deposited to be held in trust for the benefit of the Persons entitled to such Defaulted Interest as in this clause provided. Thereupon, the Trustee shall fix a Special Record Date for the payment of such Defaulted Interest which shall be not more than 15 days and not less than 10 days prior to the date of the proposed payment and not less than 10 days after the receipt by the Trustee of the notice of the proposed payment. The Trustee shall promptly notify the Company of such Special Record Date and, in the name and at the expense of the Company, shall cause notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor to be mailed, first-class postage prepaid, to each Holder of Securities of such series at his address as it appears in the Security Register, not less than 10 days prior to such Special Record Date. Notice of the proposed payment of such Defaulted Interest and the Special Record Date therefor having been so mailed, such Defaulted Interest shall be paid to the Persons in whose names the Securities of such series (or their respective Predecessor Securities) are registered at the close of business on such Special Record Date and shall no longer be payable pursuant to the following clause (b).

- (b) The Company may make payment of any Defaulted Interest on the Securities of any series in any other lawful manner not inconsistent with the requirements of any securities exchange on which such Securities may be listed, and upon such notice as may be required by such exchange, if, after notice given by the Company to the Trustee of the proposed payment pursuant to this clause, such manner of payment shall be deemed practicable by the Trustee.

Subject to the foregoing provisions of this Section, each Security delivered under this Indenture upon registration of transfer of or in exchange for or in lieu of any other Security shall carry the rights to interest accrued and unpaid, and to accrue, which were carried by such other Security.

3.8 Persons Deemed Owners. Except as otherwise provided as contemplated by Section 3.1 with respect to any series of Securities, prior to due presentment of a Security for registration of transfer, the Company, the Trustee and any agent thereof may treat the Person in whose name such Security is registered as the owner of such Security for the purpose of receiving payment of principal of and any premium and (subject to Section 3.5 and Section 3.7) any interest on such Security and for all other purposes whatsoever, regardless of whether such Security be overdue, and none of the Company, the Trustee nor any agent of any of them shall be affected by notice to the contrary.

No holder of any beneficial interest in any Global Security held on its behalf by a Depository shall have any rights under this Indenture with respect to such Global Security, and such Depository may be treated by the Company, the Trustee and any agent thereof as the owner of such Global Security for all purposes whatsoever.

3.9 Cancellation. All Securities surrendered for payment, redemption, registration of transfer or exchange or for credit against any sinking fund payment shall, if surrendered to any Person other than the Trustee, be delivered to the Trustee and shall be promptly canceled by it. The Company may at any time deliver to the Trustee for cancellation any Securities previously authenticated and delivered hereunder which the Company may have acquired in any manner whatsoever, and may deliver to the Trustee (or to any other Person for delivery to the Trustee) for cancellation any Securities previously authenticated hereunder which the Company has not issued and sold, and all Securities so delivered shall be promptly canceled by the Trustee. No Securities shall be authenticated in lieu of or in exchange for any Securities canceled as provided in this Section, except as expressly permitted by this Indenture. All canceled Securities held by the Trustee shall be disposed of in accordance with its customary practices, and the Trustee shall thereafter deliver to the Company a certificate with respect to such disposition from time to time upon written request.

3.10 Computation of Interest. Except as otherwise specified as contemplated by Section 3.1 for Securities of any series, interest on the Securities of each series shall be computed on the basis of a year of twelve 30-day months.

3.11 CUSIP or CINS Numbers. The Company in issuing the Securities may use "CUSIP" or "CINS" numbers (if then generally in use, and in addition to the other identification numbers printed on the Securities), and, if so, the Trustee shall use "CUSIP" or "CINS" numbers in notices of redemption as a convenience to Holders; *provided, however*, that any such notice may state that no representation is made as to the correctness of such "CUSIP" or "CINS" numbers either as printed on the Securities or as contained in any notice of a redemption and that reliance may be placed only on the other identification numbers printed on the Securities, and any such redemption shall not be affected by any defect in or omission of such "CUSIP" or "CINS" numbers.

ARTICLE FOUR **SATISFACTION AND DISCHARGE**

4.1 Satisfaction and Discharge of Indenture. This Indenture shall cease to be of further effect and will be discharged with respect to the Securities of any series (except as to any surviving rights of registration of transfer or exchange of Securities and certain rights of the Trustee, in each case, herein expressly provided for), and the Trustee, upon Company Request and at the expense of the Company, shall execute proper instruments acknowledging satisfaction and discharge of this Indenture with respect to such Securities, when:

(a) either

(i) all such Securities theretofore authenticated and delivered (other than (A) such Securities which have been destroyed, lost or stolen and which have been replaced or paid as provided in Section 3.6, and (B) such Securities for whose payment money has theretofore been deposited in trust or segregated and held in trust by the Company and thereafter repaid to the Company or discharged from such trust, as provided in Section 10.3) have been delivered to the Trustee for cancellation; or

(ii) all such Securities not theretofore delivered to the Trustee for cancellation:

(A) have become due and payable, or

(B) will become due and payable at their Stated Maturity within one year, or

(C) are to be called for redemption within one year under arrangements satisfactory to the Trustee for the giving of notice of redemption by the Trustee in the name, and at the expense, of the Company,

and the Company, in the case of (A), (B) or (C) above, has deposited or caused to be deposited with the Trustee as trust funds in trust for such purpose an amount sufficient to pay and discharge the entire indebtedness on such Securities not theretofore delivered to the Trustee for cancellation, for principal (and premium, if any) and interest to the date of such deposit (in the case of Securities which have become due and payable) or to the Stated Maturity or Redemption Date, as the case may be, together with instructions from the Company irrevocably directing the Trustee to apply such funds to the payment thereof at maturity or redemption, as the case may be;

(b) the Company has paid or caused to be paid all other sums payable hereunder by the Company with respect to such Securities; and

(c) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, which, taken together, state that all conditions precedent herein provided for relating to the satisfaction and discharge of this Indenture with respect to such Securities have been complied with.

Notwithstanding the satisfaction and discharge of this Indenture with respect to the Securities of any series, (x) the obligations of the Company to the Trustee under Section 6.7, the obligations of the Trustee to any Authenticating Agent under Section 6.14 and the right of the Trustee to resign under Section 6.10 shall survive, and (y) if money shall have been deposited with the Trustee pursuant to clause (a) of this Section, the obligations of the Company and the Trustee under Section 4.2, Section 6.6 and Section 10.2 and the last paragraph of Section 10.3 shall survive.

4.2 Application of Trust Money. Subject to the provisions of the last paragraph of Section 10.3, all money deposited with the Trustee pursuant to Section 4.1 shall be held in trust and applied by it, in accordance with the provisions of the Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as its own Paying Agent) as the Trustee may determine, to the Persons entitled thereto, of the principal and any premium and interest for whose payment such money has been deposited with the Trustee.

ARTICLE FIVE **REMEDIES**

5.1 Events of Default. “**Event of Default**,” wherever used herein with respect to Securities of any series, means any one of the following events (whatever the reason for such Event of Default and whether it shall be voluntary or involuntary or be effected by operation of law or pursuant to any judgment, decree or order of any court or any order, rule or regulation of any administrative or governmental body):

- (a) default in the payment of any interest upon any Security of that series when it becomes due and payable, and continuance of such default for a period of 30 days (regardless of whether such payment is prohibited by the provisions of Article Fourteen hereof); or
- (b) default in the payment of the principal of (or premium, if any, on) any Security of that series at its Maturity (regardless of whether such payment is prohibited by the provisions of Article Fourteen hereof); or
- (c) default in the performance, or breach, of the covenant set forth in Section 8.1; or

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(d) default in the performance, or breach, of any covenant in this Indenture (other than the covenant in Section 8.1 or any other covenant a default in whose performance or whose breach is elsewhere in this Section specifically dealt with or which has expressly been included in this Indenture solely for the benefit of a series of Securities other than that series), and continuance of such default or breach for a period of 60 days after there has been given, by registered or certified mail, to the Company by the Trustee or to the Company and the Trustee by the Holders of at least 25% in principal amount of the Outstanding Securities of that series a written notice specifying such default or breach and requiring it to be remedied and stating that such notice is a “**Notice of Default**” hereunder; or

(e) the Company or any Significant Subsidiary pursuant to or within the meaning of any Bankruptcy Law (i) commences a voluntary case or proceeding, (ii) consents to the entry of any decree or order for relief against it in an involuntary case or proceeding, (iii) consents to the appointment of a Custodian of it or for all or substantially all of its property, (iv) makes a general assignment for the benefit of its creditors, (v) consents to or acquiesces in the institution of a bankruptcy or an insolvency proceeding against it, (vi) takes any corporate action to authorize or effect any of the foregoing, or (vii) takes any comparable action under any foreign laws relating to insolvency; or

(f) a court of competent jurisdiction enters an order or decree under any Bankruptcy Law that (i) is for relief against the Company or any Significant Subsidiary in an involuntary case, (ii) appoints a Custodian of the Company or any Significant Subsidiary for all or substantially all of its property, or (iii) orders the liquidation or winding up of the Company or any Significant Subsidiary; and the order or decree remains unstayed and in effect for 30 consecutive days; or

(g) default in the deposit of any sinking fund payment when due; or

(h) any other Event of Default provided with respect to Securities of that series in accordance with Section 3.1.

5.2 Acceleration of Maturity; Rescission and Annulment. If an Event of Default with respect to Securities of any series at the time Outstanding occurs and is continuing, then in every such case the Trustee or the Holders of at least 25% in aggregate principal amount of the Outstanding Securities of that series may declare the principal amount (or, if the Securities of that series are Original Issue Discount Securities, such portion of the principal amount as may be specified in the terms of that series), together with any accrued and unpaid interest thereon, of all of the Securities of that series to be due and payable immediately, by a notice in writing to the Company (and to the Trustee if given by Holders), and upon any such declaration such principal amount (or specified amount), together with any accrued and unpaid interest thereon, shall become immediately due and payable. Notwithstanding the foregoing, if an Event of Default specified in clause (e) or (f) of Section 5.1 occurs, the Securities of any series at the time Outstanding shall be due and payable immediately without further action or notice.

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At any time after such a declaration of acceleration with respect to Securities of any series has been made and before a judgment or decree for payment of the money due has been obtained by the Trustee as hereinafter in this Article Five provided, the Holders of a majority in principal amount of the Outstanding Securities of that series, by written notice to the Company and the Trustee, may rescind and annul such declaration and its consequences if:

(a) the Company has paid or deposited with the Trustee a sum sufficient to pay:

- (i) all overdue interest on all Securities of that series,
- (ii) the principal of (and premium, if any, on) any Securities of that series which have become due otherwise than by such declaration of acceleration and any interest thereon at the rate or rates prescribed therefor in such Securities,
- (iii) to the extent that payment of such interest is lawful, interest upon overdue interest at the rate or rates prescribed therefor in such Securities, and
- (iv) all sums paid or advanced by the Trustee hereunder and the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel; and

(b) all Events of Default with respect to Securities of that series, other than the non-payment of the principal of Securities of that series which have become due solely by such declaration of acceleration, have been cured or waived as provided in Section 5.13.

No such rescission shall affect any subsequent default or impair any right consequent thereon.

5.3 Collection of Indebtedness and Suits for Enforcement by Trustee. The Company covenants that if:

(a) default is made in the payment of any installment of interest on any Security when such interest becomes due and payable and such default continues for a period of 30 days (regardless of whether such payment is prohibited by the provisions of Article Fourteen hereof), or

(b) default is made in the payment of the principal of (or premium, if any, on) any Security at the Maturity thereof (regardless of whether such payment is prohibited by the provisions of Article Fourteen hereof),

the Company will, upon demand of the Trustee, pay to it, for the benefit of the Holders of such Securities, the whole amount then due and payable on such Securities for principal and any premium and interest and, to the extent that payment of such interest shall be legally enforceable, interest on any overdue principal and any premium and on any overdue interest, at the rate or rates prescribed therefor in such Securities, and, in addition thereto, such further amount as shall be sufficient to cover the costs and expenses of collection, including the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel.

If the Company fails to pay such amounts forthwith upon such demand, the Trustee, in its own name and as trustee of an express trust, may institute a judicial proceeding for the collection of the sums so due and unpaid, may prosecute such proceeding to judgment or final decree and may enforce the same against the Company or any other obligor upon such Securities and collect the moneys adjudged or decreed to be payable in the manner provided by law out of the property of the Company or any other obligor upon such Securities, wherever situated.

If an Event of Default with respect to Securities of any series occurs and is continuing, the Trustee may in its discretion proceed to protect and enforce its rights and the rights of the Holders of Securities of such series by such appropriate judicial proceedings as the Trustee shall deem most effectual to protect and enforce any such rights, whether for the specific enforcement of any covenant or agreement in this Indenture or in aid of the exercise of any power granted herein, or to enforce any other proper remedy.

5.4 Trustee May File Proofs of Claim. In case of the pendency of any receivership, insolvency, liquidation, bankruptcy, reorganization, arrangement, adjustment, composition or other judicial proceeding relative to the Company or any other obligor upon the Securities, their property or their creditors, the Trustee (irrespective of whether the principal of the Securities shall then be due and payable as therein expressed or by declaration or otherwise and irrespective of whether the Trustee shall have made any demand on the Company for the payment of overdue principal or interest) shall be entitled and empowered, by intervention in such proceeding or otherwise,

(a) to file and prove a claim for the whole amount of principal (and premium, if any) and interest owing and unpaid in respect of the Securities and to file such other papers or documents as may be necessary or advisable in order to have the claims of the Trustee (including any claim for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel) and of the Holders allowed in such judicial proceeding, and

(b) to collect and receive any moneys or other property payable or deliverable on any such claims and to distribute the same;

and any custodian, receiver, assignee, trustee, liquidator, sequestrator or other similar official in any such judicial proceeding is hereby authorized by each Holder to make such payments to the Trustee and, if the Trustee shall consent to the making of such payments directly to the Holders, to pay to the Trustee any amount due it for the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, and any other amounts due the Trustee under Section 6.7.

No provision of this Indenture shall be deemed to authorize the Trustee to authorize or consent to or accept or adopt on behalf of any Holder any plan of reorganization, compromise, arrangement, adjustment or composition affecting the Securities or the rights of any Holder thereof or to authorize the Trustee to vote in respect of the claim of any Holder in any such proceeding; provided, however, that the Trustee may, on behalf of the Holders, vote for the election of a trustee in bankruptcy or similar official and be a member of a creditors' or other similar committee.

5.5 Trustee May Enforce Claims Without Possession of Securities. All rights of action and claims under this Indenture or the Securities may be prosecuted and enforced by the Trustee without the possession of any of the Securities or the production thereof in any proceeding relating thereto, and any such proceeding instituted by the Trustee shall be brought in its own name as trustee of an express trust, and any recovery of judgment shall, after provision for the payment of the reasonable compensation, expenses, disbursements and advances of the Trustee, its agents and counsel, be for the ratable benefit of the Holders of the Securities in respect of which such judgment has been recovered.

5.6 Application of Money Collected. Any money collected by the Trustee pursuant to this Article Five shall be applied in the following order, at the date or dates fixed by the Trustee and, in case of the distribution of such money on account of principal or any premium or interest, upon presentation of the Securities and the notation thereon of the payment if only partially paid and upon surrender thereof if fully paid:

FIRST: To the payment of all amounts due the Trustee under Section 6.7;

SECOND: Subject to Article Fourteen, to the payment of the amounts then due and unpaid for principal of and any premium and interest on the Securities in respect of which or for the benefit of which such money has been collected, ratably, without preference or priority of any kind, according to the amounts due and payable on such Securities for principal and any premium and interest, respectively; and

THIRD: The balance, if any, to the Company.

5.7 Limitation on Suits. No Holder of any Security of any series shall have any right to institute any proceeding, judicial or otherwise, with respect to this Indenture, or for the appointment of a receiver or trustee, or for any other remedy hereunder, unless:

(a) such Holder has previously given written notice to the Trustee of a continuing Event of Default with respect to the Securities of that series;

(b) the Holders of not less than 25% in principal amount of the Outstanding Securities of that series shall have made written request to the Trustee to institute proceedings in respect of such Event of Default in its own name as Trustee hereunder;

(c) such Holder or Holders have offered to the Trustee reasonable indemnity against the costs, expenses and liabilities to be incurred in compliance with such request;

(d) the Trustee for 60 days after its receipt of such notice, request and offer of indemnity has failed to institute any such proceeding; and

(e) no direction inconsistent with such written request has been given to the Trustee during such 60-day period by the Holders of a majority in principal amount of the Outstanding Securities of that series;

it being understood and intended that no one or more of such Holders shall have any right in any manner whatever by virtue of, or by availing of, any provision of this Indenture to affect, disturb or prejudice the rights of any other of such Holders, or to obtain or to seek to obtain priority or preference over any other of such Holders or to enforce any right under this Indenture, except in the manner herein provided and for the equal and ratable benefit of all such Holders.

5.8 Unconditional Right of Holders to Receive Principal, Premium and Interest Notwithstanding any other provision in this Indenture, the Holder of any Security shall have the right, which is absolute and unconditional, to receive payment of the principal of and any premium and (subject to Section 3.5 and Section 3.7) interest on such Security on the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on the Redemption Date) and to institute suit for the enforcement of any such payment, and such rights shall not be impaired without the consent of such Holder.

5.9 Restoration of Rights and Remedies. If the Trustee or any Holder has instituted any proceeding to enforce any right or remedy under this Indenture and such proceeding has been discontinued or abandoned for any reason, or has been determined adversely to the Trustee or to such Holder, then and in every such case, subject to any determination in such proceeding, the Company, the Trustee and the Holders shall be restored severally and respectively to their former positions hereunder and thereafter all rights and remedies of the Trustee and the Holders shall continue as though no such proceeding had been instituted.

5.10 Rights and Remedies Cumulative. Except as otherwise provided with respect to the replacement or payment of mutilated, destroyed, lost or stolen Securities in the last paragraph of Section 3.6, no right or remedy herein conferred upon or reserved to the Trustee or to the Holders is intended to be exclusive of any other right or remedy, and every right and remedy shall, to the extent permitted by law, be cumulative and in addition to every other right and remedy given hereunder or now or hereafter existing at law or in equity or otherwise. The assertion or employment of any right or remedy hereunder, or otherwise, shall not prevent the concurrent assertion or employment of any other appropriate right or remedy.

5.11 Delay or Omission Not Waiver. To fullest extent permitted by applicable law, no delay or omission of the Trustee or of any Holder of any Securities to exercise any right or remedy accruing upon any Event of Default shall impair any such right or remedy or constitute a waiver of any such Event of Default or an acquiescence therein. Every right and remedy given by this Article Five or by law to the Trustee or to the Holders may be exercised from time to time, and as often as may be deemed expedient, by the Trustee or by the Holders, as the case may be.

5.12 Control by Holders. The Holders of not less than a majority in principal amount of the Outstanding Securities of any series shall have the right to direct the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred on the Trustee, with respect to the Securities of such series; provided, however, that:

(a) such direction shall not be in conflict with any rule of law or with this Indenture;

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(b) the Trustee may take any other action deemed proper by the Trustee which is not inconsistent with such direction; and

(c) subject to the provisions of Section 6.1, the Trustee shall have the right to decline to follow any such direction if the Trustee in good faith shall determine that the proceeding so directed would involve the Trustee in personal liability.

5.13 Waiver of Past Defaults. By written notice to the Company and the Trustee, the Holders of not less than a majority in principal amount of the Outstanding Securities of any series may on behalf of the Holders of all the Securities of such series waive any past default hereunder with respect to such series and its consequences, except:

(a) a continuing default in the payment of the principal of or any premium or interest on any Security of such series, or

(b) a default in respect of a covenant or provision hereof which under Article Nine cannot be modified or amended without the consent of the Holder of each Outstanding Security of such series affected.

Upon any such waiver, such default shall cease to exist, and any Event of Default arising therefrom shall be deemed to have been cured, for every purpose of this Indenture, but no such waiver shall extend to any subsequent or other default or impair any right consequent thereon.

5.14 Undertaking for Costs. All parties to this Indenture agree, and each Holder of any Security by his acceptance thereof shall be deemed to have agreed, that any court may in its discretion require, in any suit for the enforcement of any right or remedy under this Indenture, or in any suit against the Trustee for any action taken, suffered or omitted by it as Trustee, the filing by any party litigant, other than the Trustee, in such suit of an undertaking to pay the costs of such suit, and that such court may in its discretion assess reasonable costs, including reasonable attorneys' fees, against any party litigant in such suit, having due regard to the merits and good faith of the claims or defenses made by such party litigant; but the provisions of this Section 5.14 shall not apply to any suit instituted by the Company, to any suit instituted by the Trustee, to any suit instituted by any Holder, or group of Holders, holding in the aggregate more than 10% in principal amount of the Outstanding Securities of any series, or to any suit instituted by any Holder for the enforcement of the payment of the principal of (or premium, if any) or interest on any Security on or after the Stated Maturity or Maturities expressed in such Security (or, in the case of redemption, on or after the Redemption Date).

5.15 Waiver of Stay or Extension Laws. The Company covenants (to the extent that it may lawfully do so) that it will not at any time insist upon, or plead, or in any manner whatsoever claim or take the benefit or advantage of, any stay or extension law wherever enacted, now or at any time hereafter in force, which may affect the covenants or the performance of this Indenture; and the Company (to the extent that it may lawfully do so) hereby expressly waives all benefit or advantage of any such law and covenants that it will not hinder, delay or impede the execution of any power herein granted to the Trustee, but will suffer and permit the execution of every such power as though no such law had been enacted.

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ARTICLE SIX THE TRUSTEE

6.1 Certain Duties and Responsibilities.

(a) Except during the continuance of an Event of Default,

(i) the Trustee undertakes to perform such duties and only such duties as are specifically set forth in this Indenture and as are provided by the Trust Indenture Act, and no implied covenants or obligations shall be read into this Indenture against the Trustee; and

(ii) in the absence of bad faith on its part, the Trustee may conclusively rely, as to the truth of the statements and the correctness of the opinions expressed therein, upon certificates or opinions furnished to the Trustee and conforming to the requirements of this Indenture; but in the case of any such certificates or opinions which by any provision hereof are specifically required to be furnished to the Trustee, the Trustee shall be under a duty to examine the same to determine

whether they conform to the requirements of this Indenture.

(b) In case an Event of Default has occurred and is continuing, the Trustee shall exercise such of the rights and powers vested in it by this Indenture, and use the same degree of care and skill in their exercise, as a prudent man would exercise or use under the circumstances in the conduct of his own affairs.

(c) No provision of this Indenture shall be construed to relieve the Trustee from liability for its own negligent action, its own negligent failure to act, or its own willful misconduct, except that

(i) this Subsection shall not be construed to limit the effect of Subsection (a) of this Section;

(ii) the Trustee shall not be liable for any error of judgment made in good faith by a Responsible Officer, unless it shall be proved that the Trustee was negligent in ascertaining the pertinent facts;

(iii) the Trustee shall not be liable with respect to any action taken or omitted to be taken by it in good faith in accordance with the direction of the Holders of a majority in principal amount of the Outstanding Securities of any series, given pursuant to Section 5.12, relating to the time, method and place of conducting any proceeding for any remedy available to the Trustee, or exercising any trust or power conferred upon the Trustee, under this Indenture with respect to the Securities of such series; and

(iv) no provision of this Indenture shall require the Trustee to expend or risk its own funds or otherwise incur any financial liability in the performance of any of its duties hereunder, or in the exercise of any of its rights or powers, if it shall have reasonable grounds for believing that repayment of such funds or adequate indemnity against such risk or liability is not reasonably assured to it.

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(d) Regardless of whether therein expressly so provided, every provision of this Indenture relating to the conduct or affecting the liability of or affording protection to the Trustee shall be subject to the provisions of this Section.

6.2 Notice of Defaults. Within 90 days after the occurrence of any Default hereunder with respect to the Securities of any series, the Trustee shall transmit by mail to all Holders of Securities of such series, as their names and addresses appear in the Security Register, notice of such Default hereunder known to the Trustee, unless such Default shall have been cured or waived; *provided, however*, that, except in the case of a Default in the payment of the principal of or any premium or interest on any Security of such series or in the payment of any sinking fund installment with respect to Securities of such series, the Trustee may withhold from Holders of Securities notice of any continuing Default or Event of Default if the Trustee in good faith determines that the withholding of such notice is in the interest of the Holders of Securities of such series; and, *provided, further*, that in the case of any Default of the character specified in Section 5.1(c) with respect to Securities of such series, no such notice to Holders shall be given until at least 90 days after the occurrence thereof and that in the case of any Default of the character specified in Section 5.1(d) with respect to Securities of such series, no such notice to Holders shall be given until at least 180 days after the occurrence thereof.

6.3 Certain Rights of Trustee. Subject to the provisions of Section 6.1:

(a) the Trustee may conclusively rely and shall be fully protected in acting or refraining from acting upon any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document believed by it to be genuine and to have been signed or presented by the proper party or parties;

(b) any request or direction of the Company mentioned herein shall be sufficiently evidenced by a Company Request or Company Order (other than delivery of any Security to the Trustee for authentication and delivery pursuant to Section 3.3, which shall be sufficiently evidenced as provided therein) and any resolution of the Board of Directors may be sufficiently evidenced by a Board Resolution;

(c) whenever in the administration of this Indenture the Trustee shall deem it desirable that a matter be proved or established prior to taking, suffering or omitting any action hereunder, the Trustee (unless other evidence be herein specifically prescribed) shall be entitled to receive and may, in the absence of bad faith on its part, rely upon an Officer's Certificate;

(d) the Trustee may consult with counsel and the advice of such counsel or any Opinion of Counsel shall be full and complete authorization and protection in respect of any action taken, suffered or omitted by it hereunder in good faith and in reliance thereon;

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(e) the Trustee shall be under no obligation to exercise any of the rights or powers vested in it by this Indenture at the request or direction of any of the Holders pursuant to this Indenture, unless such Holders shall have offered to the Trustee reasonable security or indemnity against the costs, expenses and liabilities which might be incurred by it in compliance with such request or direction;

(f) the Trustee shall not be bound to make any investigation into the facts or matters stated in any resolution, certificate, statement, instrument, opinion, report, notice, request, direction, consent, order, bond, debenture, note, other evidence of indebtedness or other paper or document, but the Trustee, in its discretion, may make such further inquiry or investigation into such facts or matters as it may see fit, and, if the Trustee shall determine to make such further inquiry or investigation, it shall be entitled to examine the books, records and premises of the Company, personally or by agent or attorney;

(g) the Trustee may execute any of the trusts or powers hereunder or perform any duties hereunder either directly or by or through agents or attorneys and the Trustee shall not be responsible for any misconduct or negligence on the part of any agent or attorney appointed with due care by it hereunder and shall not be responsible for the supervision of officers and employees of such agents or attorneys;

(h) the Trustee may request that the Company deliver an Officer's Certificate setting forth the names of individuals and/or titles of officers authorized at such time to take specified actions pursuant to this Indenture, which Officer's Certificate may be signed by any person authorized to sign an Officer's Certificate, including any person specified as so authorized in any such certificate previously delivered and not superseded;

(i) the Trustee shall be entitled to the rights and protections afforded to the Trustee pursuant to this Article Six in acting as a Paying Agent or Security Registrar hereunder; and

(j) the Trustee shall not be deemed to have notice of any Default or Event of Default unless a Responsible Officer of the Trustee has actual knowledge thereof or unless written notice of any event which is in fact such a default is received by the Trustee at the Corporate Trust Office of the Trustee, and such notice references the

Notes and this Indenture.

6.4 Not Responsible for Recitals or Issuance of Securities. The recitals contained herein and in the Securities, except the Trustee's certificates of authentication, shall be taken as the statements of the Company and the Trustee or any Authenticating Agent assumes no responsibility for their correctness. Neither the Trustee nor any Authenticating Agent makes any representations as to the validity or sufficiency of this Indenture or of the Securities. The Trustee or any Authenticating Agent shall not be accountable for the use or application by the Company of Securities or the proceeds thereof.

6.5 May Hold Securities. The Trustee, any Authenticating Agent, any Paying Agent, any Security Registrar or any other agent of the Company in its individual or any other capacity, may become the owner or pledgee of Securities and, subject to Sections 310(b) and 311 of the Trust Indenture Act and Section 6.8, Section 6.9 and Section 6.13, may otherwise deal with the Company with the same rights it would have if it were not Trustee, Authenticating Agent, Paying Agent, Security Registrar or such other agent.

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6.6 Money Held in Trust. Money held by the Trustee in trust hereunder need not be segregated from other funds except to the extent required by law. The Trustee shall be under no liability for interest on any money received by it hereunder except as otherwise agreed in writing with the Company.

6.7 Compensation and Reimbursement. The Company agrees:

- (a) to pay to the Trustee from time to time reasonable compensation for all services rendered by it hereunder (which compensation shall not be limited by any provision of law in regard to the compensation of a trustee of an express trust);
- (b) except as otherwise expressly provided herein, to reimburse the Trustee upon its request for all reasonable expenses, disbursements and advances incurred or made by the Trustee in accordance with any provision of this Indenture (including the reasonable compensation and the expenses and disbursements of its agents and counsel), except any such expense, disbursement or advance as may be attributable to its negligence or bad faith; and
- (c) to indemnify each of the Trustee and its officers, directors, agents and employees for, and to hold it harmless against, any loss, liability or expense incurred without negligence or willful misconduct on its part, arising out of or in connection with the acceptance or administration of the trust or trusts hereunder, including the costs and expenses of defending itself against any claim or liability in connection with the exercise or performance of any of its powers or duties hereunder.

As security for the performance of the obligations of the Company under this Section the Trustee shall have a lien prior to the Securities upon all property and funds held or collected by the Trustee as such, except funds held in trust for the payment of principal of (and premium, if any) or interest on particular Securities.

Without limiting any rights available to the Trustee under applicable law, when the Trustee incurs expenses or renders services in connection with an Event of Default specified in Section 5.1(e) or Section 5.1(f), the expenses (including the reasonable charges and expenses of its counsel) and the compensation for the services of the Trustee are intended to constitute expenses of administration under any applicable Bankruptcy Law.

The provisions of this Section 6.7 shall survive the satisfaction and discharge of this Indenture and the Legal Defeatance of the Securities.

6.8 Disqualification; Conflicting Interests. Reference is made to Section 310(b) of the Trust Indenture Act. There shall be excluded from the operation of Section 310(b)(1) of the Trust Indenture Act this Indenture with respect to the Securities of more than one series.

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6.9 Corporate Trustee Required; Eligibility. There shall at all times be a Trustee hereunder which shall be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to exercise corporate trust powers, having a combined capital and surplus required by the Trust Indenture Act, subject to supervision or examination by Federal or State authority. If such corporation publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such corporation shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. The Trustee shall not be an obligor upon the Securities or an Affiliate thereof. If at any time the Trustee shall cease to be eligible in accordance with the provisions of this Section, it shall resign immediately in the manner and with the effect hereinafter specified in this Article Six.

6.10 Resignation and Removal; Appointment of Successor.

- (a) No resignation or removal of the Trustee and no appointment of a successor Trustee pursuant to this Article shall become effective until the acceptance of appointment by the successor Trustee in accordance with the applicable requirements of Section 6.11.
- (b) The Trustee may resign at any time with respect to the Securities of one or more series by giving written notice thereof to the Company. If the instrument of acceptance by a successor Trustee required by Section 6.11 shall not have been delivered to the Trustee within 30 days after the giving of such notice of resignation, the resigning Trustee may petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.
- (c) The Trustee may be removed at any time with respect to the Securities of any series by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series, delivered to the Trustee and to the Company.
- (d) If at any time:
 - (i) the Trustee shall fail to comply with Section 310(b) of the Trust Indenture Act after written request therefor by the Company or by any Holder who has been a bona fide Holder of a Security for at least six months, or
 - (ii) the Trustee shall cease to be eligible under Section 6.9 and shall fail to resign after written request therefor by the Company or by any such Holder, or
 - (iii) the Trustee shall become incapable of acting or shall be adjudged a bankrupt or insolvent or a receiver of the Trustee or of its property shall be appointed or any public officer shall take charge or control of the Trustee or of its property or affairs for the purpose of rehabilitation, conservation or liquidation, then, in any such case, (A) the Company by a Board Resolution may remove the Trustee with respect to all Securities, or (B) subject to Section 5.14, any Holder who has been a bona fide Holder of a Security for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the removal of the Trustee with respect to all Securities and the appointment of a successor Trustee or Trustees.

(e) If the Trustee shall resign, be removed or become incapable of acting, or if a vacancy shall occur in the office of Trustee for any cause, with respect to the Securities of one or more series, the Company, by a Board Resolution, shall promptly appoint a successor Trustee or Trustees with respect to the Securities of that or those series (it being understood that any such successor Trustee may be appointed with respect to the Securities of one or more or all of such series and that at any time there shall be only one Trustee with respect to the Securities of any particular series) and shall comply with the applicable requirements of Section 6.11. If, within one year after such resignation, removal or incapability, or the occurrence of such vacancy, a successor Trustee with respect to the Securities of any series shall be appointed by Act of the Holders of a majority in principal amount of the Outstanding Securities of such series delivered to the Company and the retiring Trustee, the successor Trustee so appointed shall, forthwith upon its acceptance of such appointment in accordance with the applicable requirements of Section 6.11, become the successor Trustee with respect to the Securities of such series and to that extent supersede the successor Trustee appointed by the Company. If no successor Trustee with respect to the Securities of any series shall have been so appointed by the Company or the Holders and accepted appointment in the manner required by Section 6.11, any Holder who has been a bona fide Holder of a Security of such series for at least six months may, on behalf of himself and all others similarly situated, petition any court of competent jurisdiction for the appointment of a successor Trustee with respect to the Securities of such series.

(f) The Company shall give notice of each resignation and each removal of the Trustee with respect to the Securities of any series and each appointment of a successor Trustee with respect to the Securities of any series to all Holders of Securities of such series in the manner provided in Section 1.7. Each notice shall include the name of the successor Trustee with respect to the Securities of such series and the address of its Corporate Trust Office.

6.11 Acceptance of Appointment by Successor.

(a) In case of the appointment hereunder of a successor Trustee with respect to all Securities, every such successor Trustee so appointed shall execute, acknowledge and deliver to the Company and to the retiring Trustee an instrument accepting such appointment, and thereupon the resignation or removal of the retiring Trustee shall become effective and such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee; but, on the request of the Company or the successor Trustee, such retiring Trustee shall, upon payment of its charges, execute and deliver an instrument transferring to such successor Trustee all the rights, powers and trusts of the retiring Trustee and shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder.

(b) In case of the appointment hereunder of a successor Trustee with respect to the Securities of one or more (but not all) series, the Company, the retiring Trustee and each successor Trustee with respect to the Securities of one or more series shall execute and deliver an indenture supplemental hereto wherein each successor Trustee shall accept such appointment and which (i) shall contain such provisions as shall be necessary or desirable to transfer and confirm to, and to vest in, each successor Trustee all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates, (ii) if the retiring Trustee is not retiring with respect to all Securities, shall contain such provisions as shall be deemed necessary or desirable to confirm that all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series as to which the retiring Trustee is not retiring shall continue to be vested in the retiring Trustee, and (iii) shall add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, it being understood that nothing herein or in such supplemental indenture shall constitute such Trustees co-trustees of the same trust and that each such Trustee shall be trustee of a trust or trusts hereunder separate and apart from any trust or trusts hereunder administered by any other such Trustee; and upon the execution and delivery of such supplemental indenture the resignation or removal of the retiring Trustee shall become effective to the extent provided therein and each such successor Trustee, without any further act, deed or conveyance, shall become vested with all the rights, powers, trusts and duties of the retiring Trustee with respect to the Securities of that or those series to which the appointment of such successor Trustee relates; but, on request of the Company or any successor Trustee, such retiring Trustee shall duly assign, transfer and deliver to such successor Trustee all property and money held by such retiring Trustee hereunder with respect to the Securities of that or those series to which the appointment of such successor Trustee relates.

(c) Upon request of any such successor Trustee, the Company shall execute any and all instruments for more fully and certainly vesting in and confirming to such successor Trustee all such rights, powers and trusts referred to in paragraph (a) or (b) of this Section, as the case may be.

(d) No successor Trustee shall accept its appointment unless at the time of such acceptance such successor Trustee shall be qualified and eligible under this Article and the Trust Indenture Act.

6.12 Merger, Conversion, Consolidation or Succession to Business. Any corporation into which the Trustee may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which the Trustee shall be a party, or any corporation succeeding to all or substantially all the corporate trust business of the Trustee, shall be the successor of the Trustee hereunder, provided such corporation shall be otherwise qualified and eligible under this Article Six, without the execution or filing of any paper or any further act on the part of any of the parties hereto. In case any Securities shall have been authenticated, but not delivered, by the Trustee then in office, any successor by merger, conversion or consolidation to such authenticating Trustee may adopt such authentication and deliver the Securities so authenticated with the same effect as if such successor Trustee had itself authenticated such Securities.

6.13 Preferential Collection of Claims Against Company. Reference is made to Section 311 of the Trust Indenture Act. For purposes of Section 311(b) of the Trust Indenture Act,

(a) the term “**cash transaction**” means any transaction in which full payment for goods or securities sold is made within seven days after delivery of the goods or securities in currency or in checks or other orders drawn upon banks or bankers and payable upon demand;

(b) the term “**self-liquidating paper**” means any draft, bill of exchange, acceptance or obligation which is made, drawn, negotiated or incurred by the Company for the purpose of financing the purchase, processing, manufacturing, shipment, storage or sale of goods, wares or merchandise and which is secured by documents evidencing title to, possession of, or a lien upon, the goods, wares or merchandise or the receivables or proceeds arising from the sale of the goods, wares or merchandise previously constituting the security, provided the security is received by the Trustee simultaneously with the creation of the creditor relationship with the Company arising from the making, drawing, negotiating or incurring of the draft, bill of exchange, acceptance or obligation.

6.14 Appointment of Authenticating Agent. The Trustee may appoint an Authenticating Agent or Agents with respect to one or more series of Securities which shall be authorized to act on behalf of the Trustee to authenticate Securities of such series issued upon exchange, registration of transfer or partial redemption thereof or pursuant to Section 3.6, and Securities so authenticated shall be entitled to the benefits of this Indenture and shall be valid and obligatory for all purposes as if authenticated by the Trustee

hereunder. Wherever reference is made in this Indenture to the authentication and delivery of Securities by the Trustee or the Trustee's certificate of authentication, such reference shall be deemed to include authentication and delivery on behalf of the Trustee by an Authenticating Agent and a certificate of authentication executed on behalf of the Trustee by an Authenticating Agent. Each Authenticating Agent shall be acceptable to the Company and shall at all times be a corporation organized and doing business under the laws of the United States of America, any State thereof or the District of Columbia, authorized under such laws to act as Authenticating Agent, having a combined capital and surplus of not less than \$50,000,000 and subject to supervision or examination by Federal or State authority. If such Authenticating Agent publishes reports of condition at least annually, pursuant to law or to the requirements of said supervising or examining authority, then for the purposes of this Section, the combined capital and surplus of such Authenticating Agent shall be deemed to be its combined capital and surplus as set forth in its most recent report of condition so published. If at any time an Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, such Authenticating Agent shall resign immediately in the manner and with the effect specified in this Section.

Any corporation into which an Authenticating Agent may be merged or converted or with which it may be consolidated, or any corporation resulting from any merger, conversion or consolidation to which such Authenticating Agent shall be a party, or any corporation succeeding to all or substantially all of the corporate agency or corporate trust business of an Authenticating Agent, shall continue to be an Authenticating Agent, provided such corporation shall be otherwise eligible under this Section, without the execution or filing of any paper or any further act on the part of the Trustee or the Authenticating Agent.

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An Authenticating Agent may resign at any time by giving written notice thereof to the Trustee and to the Company. The Trustee may at any time terminate the agency of an Authenticating Agent by giving written notice thereof to such Authenticating Agent and to the Company. Upon receiving such a notice of resignation or upon such a termination, or in case at any time such Authenticating Agent shall cease to be eligible in accordance with the provisions of this Section, the Trustee may appoint a successor Authenticating Agent which shall be acceptable to the Company and shall mail written notice of such appointment by first-class mail, postage prepaid, to all Holders of Securities of the series with respect to which such Authenticating Agent will serve, as their names and addresses appear in the Security Register. Any successor Authenticating Agent upon acceptance of its appointment hereunder shall become vested with all the rights, powers and duties of its predecessor hereunder, with like effect as if originally named as an Authenticating Agent. No successor Authenticating Agent shall be appointed unless eligible under the provisions of this Section.

Except with respect to an Authenticating Agent appointed at the request of the Company, the Trustee agrees to pay to each Authenticating Agent from time to time reasonable compensation for its services under this Section 6.14, and the Trustee shall be entitled to be reimbursed by the Company for such payments, subject to the provisions of Section 6.7.

If an appointment with respect to one or more series is made pursuant to this Section 6.14, the Securities of such series may have endorsed thereon, in addition to the Trustee's certificate of authentication, an alternate certificate of authentication in the following form:

This is one of the Securities of the series designated therein referred to in the within-mentioned Indenture.

As Trustee

By: _____
As Authenticating Agent

By: _____
As Authenticating Officer

ARTICLE SEVEN HOLDERS' LISTS AND REPORTS BY TRUSTEE AND COMPANY

7.1 Company to Furnish Trustee Names and Addresses of Holders. The Company will furnish or cause to be furnished to the Trustee:

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(a) semi-annually, not more than 15 days after each Regular Record Date for a series of Securities, a list for such series of Securities, in such form as the Trustee may reasonably require, of the names and addresses of the Holders of Securities of such series as of such Regular Record Date, and

(b) at such other times as the Trustee may request in writing, within 30 days after the receipt by the Company of any such request, a list of similar form and content as of a date not more than 15 days prior to the time such list is furnished; provided, however, that if and so long as the Trustee shall be the Security Registrar, no such list need be furnished with respect to such series of Securities.

7.2 Preservation of Information; Communications to Holders.

(a) The Trustee shall preserve, in as current a form as is reasonably practicable, the names and addresses of Holders contained in the most recent list furnished to the Trustee as provided in Section 7.1 and the names and addresses of Holders received by the Trustee in its capacity as Security Registrar. The Trustee may destroy any list furnished to it as provided in Section 7.1 upon receipt of a new list so furnished.

(b) If three or more Holders (herein referred to as "**applicants**") apply in writing to the Trustee, and furnish to the Trustee reasonable proof that each such applicant has owned a Security for a period of at least six months preceding the date of such application, and such application states that the applicants desire to communicate with other Holders with respect to their rights under this Indenture or under the Securities and is accompanied by a copy of the form of proxy or other communication which such applicants propose to transmit, then the Trustee shall, within five business days after the receipt of such application, at its election, either

(i) afford such applicants access to the information preserved at the time by the Trustee in accordance with Section 7.2(a), or

(ii) inform such applicants as to the approximate number of Holders whose names and addresses appear in the information preserved at the time by the Trustee in accordance with Section 7.2(a), and as to the approximate cost of mailing to such Holders the form of proxy or other communication, if any, specified in such application.

If the Trustee shall elect not to afford such applicants access to such information, the Trustee shall, upon the written request of such applicants, mail to each Holder whose name and address appear in the information preserved at the time by the Trustee in accordance with Section 7.2(a) a copy of the form of proxy or other communication

which is specified in such request, with reasonable promptness after a tender to the Trustee of the material to be mailed and of payment, or provision for the payment, of the reasonable expenses of mailing, unless within five days after such tender the Trustee shall mail to such applicants and file with the SEC, together with a copy of the material to be mailed, a written statement to the effect that, in the opinion of the Trustee, such mailing would be contrary to the best interest of the Holders or would be in violation of applicable law. Such written statement shall specify the basis of such opinion. If the SEC, after opportunity for a hearing upon the objections specified in the written statement so filed, shall enter an order refusing to sustain any of such objections or if, after the entry of an order sustaining one or more of such objections, the SEC shall find, after notice and opportunity for hearing, that all the objections so sustained have been met and shall enter an order so declaring, the Trustee shall mail copies of such material to all such Holders with reasonable promptness after the entry of such order and the renewal of such tender; otherwise the Trustee shall be relieved of any obligation or duty to such applicants respecting their application.

(c) Every Holder of Securities, by receiving and holding the same, agrees with the Company and the Trustee that none of the Company nor the Trustee nor any agent of any of them shall be held accountable by reason of the disclosure of any such information as to the names and addresses of the Holders in accordance with Section 7.2(b), regardless of the source from which such information was derived, and that the Trustee shall not be held accountable by reason of mailing any material pursuant to a request made under Section 7.2(b).

7.3 Reports by Trustee. Any Trustee's report required pursuant to Section 313(a) of the Trust Indenture Act shall be dated as of May 15, and shall be transmitted within 60 days after May 15 of each year (but in all events at intervals of not more than 12 months), commencing with the year 20 , by mail to all Holders, as their names and addresses appear in the Security Register. A copy of each such report shall, at the time of such transmission to Holders, be filed by the Trustee with each stock exchange upon which any Securities are listed, with the SEC and with the Company. The Company will notify the Trustee when any Securities are listed on any stock exchange.

7.4 Reports by Company. The Company shall:

(a) file with the Trustee, within 15 days after the Company files the same with the SEC, copies of the annual reports and of the information, documents and other reports (or copies of such portions of any of the foregoing as the SEC may from time to time by rules and regulations prescribe) which the Company may be required to file with the SEC pursuant to Section 13 or Section 15(d) of the Exchange Act; or, if the Company is not required to file information, documents or reports pursuant to either of said Sections, then it shall file with the Trustee and the SEC, in accordance with rules and regulations prescribed from time to time by the SEC, such of the supplementary and periodic information, documents and reports which may be required pursuant to Section 13 of the Exchange Act in respect of a security listed and registered on a national securities exchange as may be prescribed from time to time in such rules and regulations;

(b) file with the Trustee and the SEC, in accordance with rules and regulations prescribed from time to time by the SEC, such additional information, documents and reports with respect to compliance by the Company with the conditions and covenants of this Indenture as may be required from time to time by such rules and regulations; and

(c) transmit by mail to all Holders, as their names and addresses appear in the Security Register, within 30 days after the filing thereof with the Trustee, such summaries of any information, documents and reports required to be filed by the Company pursuant to clauses (a) and (b) of this Section as may be required by rules and regulations prescribed from time to time by the SEC.

ARTICLE EIGHT **CONSOLIDATION, AMALGAMATION, MERGER AND SALE**

8.1 Company May Consolidate, Etc., Only on Certain Terms. The Company shall not consolidate or merge with or into any other Person or sell, convey, transfer, lease or otherwise dispose of all or substantially all of the properties and assets of the Company on a consolidated basis to any other Person, and shall not permit any Person to consolidate or merge into the Company, unless:

(a) either: (i) the Company is the surviving corporation; or (ii) the Person formed by or surviving any such consolidation, amalgamation or merger or resulting from such conversion (if other than the Company) or to which such sale, assignment, transfer, conveyance or other disposition has been made is a corporation, limited liability company or limited partnership organized or existing under the laws of the United States, any state of the United States or the District of Columbia;

(b) the Person formed by or surviving any such conversion, consolidation, amalgamation or merger (if other than the Company) or the Person to which such sale, assignment, transfer, conveyance or other disposition has been made assumes all the obligations of the Company under the Securities and this Indenture pursuant to agreements reasonably satisfactory to the Trustee; provided that, unless such Person is a corporation, a corporate co-issuer of the Securities will be added to this Indenture by agreements reasonably satisfactory to the Trustee;

(c) immediately before and after giving pro forma effect to such transaction, no Event of Default, and no event which, after notice or lapse of time or both, would become an Event of Default, shall have occurred and be continuing; and

(d) the Company has delivered to the Trustee an Officer's Certificate and an Opinion of Counsel, each stating that such consolidation, amalgamation, merger, conveyance, sale, transfer or lease and such supplemental indenture, if any, comply with this Article Eight and that all conditions precedent herein provided for relating to such transaction have been complied with.

8.2 Successor Substituted. Upon any consolidation or merger of the Company with or into any other Person or any sale, conveyance, transfer, lease or other disposition of all or substantially all of the properties and assets of the Company on a consolidated basis in accordance with Section 8.1, the successor or resulting Person formed by or resulting upon such consolidation or merger (if other than the Company) or to which such sale, conveyance, transfer, lease or other disposition is made shall succeed to, and be substituted for, and may exercise every right and power of, the Company under this Indenture with the same effect as if such successor Person had been named as the Company herein, and thereafter, except in the case of a lease, the predecessor Company shall be relieved of all obligations and covenants under this Indenture and the Securities.

ARTICLE NINE **AMENDMENT, SUPPLEMENT AND WAIVER**

9.1 Without Consent of Holders. The Company and the Trustee may amend or supplement this indenture or the Securities without the consent of any holder of a Security:

(a) to cure any ambiguity or to correct or supplement any provision herein that may be inconsistent with any other provision herein in a manner that does not adversely affect the rights of any Holder of Securities in any material respect; or

(b) to evidence the succession of another Person to the Company and the assumption by any such successor of the covenants of the Company herein and, to the extent applicable, to the Securities; or

(c) to provide for uncertificated Securities in addition to or in place of certificated Securities; provided that the uncertificated Securities are issued in registered form for purposes of Section 163(f) of the Code, or in the manner such that the uncertificated Securities are described in Section 163(f)(2)(B) of the Code; or

(d) to secure the Securities of any series; or

(e) to add to the covenants of the Company such further covenants, restrictions, conditions or provisions as the Company shall consider to be appropriate for the benefit of the Holders of all or any series of Securities (and if such covenants, restrictions, conditions or provisions are to be for the benefit of less than all series of Securities, stating that such covenants are expressly being included solely for the benefit of such series) or to surrender any right or power herein conferred upon the Company and to make the occurrence, or the occurrence and continuance, of a Default in any such additional covenants, restrictions, conditions or provisions an Event of Default permitting the enforcement of all or any of the several remedies provided in this Indenture as herein set forth; provided, that in respect of any such additional covenant, restriction, condition or provision such supplemental indenture may provide for a particular period of grace after default (which period may be shorter or longer than that allowed in the case of other defaults) or may provide for an immediate enforcement upon such an Event of Default or may limit the remedies available to the Trustee upon such an Event of Default or may limit the right of the Holders of a majority in aggregate principal amount of the Securities of such series to waive such an Event of Default; or

(f) to make any change to any provision of this Indenture that does not adversely affect the rights or interests of any Holder of Securities; or

(g) to provide for the issuance of additional Securities in accordance with the provisions set forth in this Indenture on the date of this Indenture; or

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(h) to add any additional Defaults or Events of Default in respect of all or any series of Securities; or

(i) to add to, change or eliminate any of the provisions of this Indenture to such extent as shall be necessary to permit or facilitate the issuance of Securities in bearer form, registrable or not registrable as to principal, and with or without interest coupons; or

(j) to change or eliminate any of the provisions of this Indenture; provided that any such change or elimination shall become effective only when there is no Security Outstanding of any series created prior to the execution of such supplemental indenture that is entitled to the benefit of such provision; or

(k) to establish the form or terms of Securities of any series as permitted by Section 2.1 and Section 3.1, including to reopen any series of any Securities as permitted under Section 3.1; or

(l) to evidence and provide for the acceptance of appointment hereunder by a successor Trustee with respect to the Securities of one or more series and to add to or change any of the provisions of this Indenture as shall be necessary to provide for or facilitate the administration of the trusts hereunder by more than one Trustee, pursuant to the requirements of Section 6.11(b); or

(m) to conform the text of this Indenture (and/or any supplemental indenture) or any debt securities issued thereunder to any provision of a description of such debt securities appearing in a prospectus or prospectus supplement or an offering memorandum or offering circular to the extent that such provision was intended to be a verbatim recreation of a provision of the indenture (and/or any supplemental indenture) or any debt securities issued thereunder; or

(n) to modify, eliminate or add to the provisions of this Indenture to such extent as shall be necessary to effect the qualification of this Indenture under the Trust Indenture Act or under any similar federal statute subsequently enacted, and to add to this Indenture such other provisions as may be expressly required under the Trust Indenture Act.

After an amendment under this Section 9.1 becomes effective, the Company shall mail to Holders a notice briefly describing such amendment. The failure to give such notice to Holders, or any defect therein, shall not impair or affect the validity of an amendment under this Section 9.1.

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, the Trustee is hereby authorized to join with the Company in the execution of any such supplemental indenture, to make any further appropriate agreements and stipulations that may be therein contained and to accept the conveyance, transfer, assignment, mortgage, charge or pledge of any property thereunder, but the Trustee shall not be obligated to enter into any such supplemental indenture that affects the Trustee's own rights, duties or immunities under this Indenture or otherwise.

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9.2 With Consent of Holders. The Company and the Trustee may amend or supplement this Indenture and the Securities with the consent of the Holders of a majority in aggregate principal amount of the Outstanding Securities of each series of Securities affected by such amendment or supplemental indenture, with each such series voting as a separate class (including, without limitation, consents obtained in connection with a purchase of, or tender offer or exchange offer for Securities) and, subject to Section 5.8 and Section 5.13 hereof, any existing Default or Event of Default or compliance with any provision of this Indenture or the Securities may be waived with respect to each series of Securities with the consent of the Holders of a majority in principal amount of the Outstanding Securities of such series voting as a separate class (including consents obtained in connection with a purchase of, or tender offer or exchange offer for, Securities).

Upon the request of the Company accompanied by a resolution of its Board of Directors authorizing the execution of any such amended or supplemental indenture, and upon the filing with the Trustee of evidence satisfactory to the Trustee of the consent of the Holders of Securities as aforesaid, and upon receipt by the Trustee of the documents described in Section 6.3 hereof, the Trustee will join with the Company in the execution of such amended or supplemental indenture unless such amended or supplemental indenture directly affects the Trustee's own rights, duties or immunities under this Indenture or otherwise, in which case the Trustee may in its discretion, but will not be obligated to, enter into such amended or supplemental Indenture.

It is not necessary for the consent of the Holders of Securities under this Section 9.2 to approve the particular form of any proposed amendment or waiver, but it is sufficient if such consent approves the substance of the proposed amendment or waiver.

After an amendment, supplement or waiver under this Section 9.2 becomes effective, the Company will mail to the Holders of Securities affected thereby a notice briefly describing the amendment, supplement or waiver. Any failure of the Company to mail such notice, or any defect therein, will not, however, in any way impair or affect the validity of any such amended or supplemental indenture or waiver. Subject to Section 5.8 and Section 5.13 hereof, the application of or compliance with, either generally or in any particular instance, of any provision of this Indenture or the Securities may be waived as to each series of Securities by the Holders of a majority in aggregate principal amount of the Outstanding Securities of such series. However, without the consent of each Holder affected, an amendment or waiver under this Section 9.2 may not (with respect to any Securities held by a non-consenting Holder):

(a) change the Stated Maturity of the principal of, or any installment of principal of or interest on, any Security, or reduce the principal amount thereof or the rate of interest thereon or any premium payable upon the redemption thereof, or reduce the amount of the principal of an Original Issue Discount Security that would be due and payable upon a declaration of acceleration of the Maturity thereof pursuant to Section 5.2, or change any Place of Payment where, or the coin or currency in which, any Security or any premium or the interest thereon is payable, or impair the right to institute suit for the enforcement of any such payment on or after the Stated Maturity thereof (or, in the case of redemption, on or after the Redemption Date); or

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(b) reduce the percentage in principal amount of the Outstanding Securities of any series, the consent of whose Holders is required for any such supplemental indenture, or the consent of whose Holders is required for any waiver (of compliance with certain provisions of this Indenture or certain defaults hereunder and their consequences) provided for in this Indenture; or

(c) modify any of the provisions of this Section 9.2, Section 5.8, Section 5.13 or Section 10.6, except to increase any such percentage or to provide that certain other provisions of this Indenture cannot be modified or waived without the consent of the Holder of each Outstanding Security affected thereby, provided, however, that this clause (c) shall not be deemed to require the consent of any Holder with respect to changes in the references to “the Trustee” and concomitant changes in this Section, or the deletion of this proviso, in accordance with the requirements of Section 6.11(b) and Section 9.1(h); or

(d) waive a redemption payment with respect to any Security; provided, however, that any purchase or repurchase of Securities shall not be deemed a redemption of the Securities; or

(e) make any change in the foregoing amendment and waiver provisions.

A supplemental indenture that changes or eliminates any covenant or other provision of this Indenture that has expressly been included solely for the benefit of one or more particular series of Securities, or that modifies the rights of the Holders of Securities of such series with respect to such covenant or other provision, shall be deemed not to affect the rights under this Indenture of the Holders of Securities of any other series.

It shall not be necessary for any Act of Holders under this Section 9.2 to approve the particular form of any proposed supplemental indenture, but it shall be sufficient if such Act shall approve the substance thereof.

9.3 Execution of Supplemental Indentures. In executing, or accepting the additional trusts created by, any supplemental indenture permitted by this Article or the modifications thereby of the trusts created by this Indenture, the Trustee shall be entitled to receive, and (subject to Section 6.1) shall be fully protected in relying upon, an Opinion of Counsel stating that the execution of such supplemental indenture is authorized or permitted by this Indenture. The Trustee may, but shall not be obligated to, enter into any such supplemental indenture which affects the Trustee’s own rights, duties or immunities under this Indenture or otherwise.

9.4 Effect of Supplemental Indentures. Upon the execution of any supplemental indenture under this Article Nine, this Indenture shall be modified in accordance therewith, and such supplemental indenture shall form a part of this Indenture for all purposes; and every Holder of Securities theretofore or thereafter authenticated and delivered hereunder shall be bound thereby.

9.5 Conformity with Trust Indenture Act. Every supplemental indenture executed pursuant to this Article Nine shall conform to the requirements of the Trust Indenture Act as then in effect.

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9.6 Reference in Securities to Supplemental Indentures. Securities of any series authenticated and delivered after the execution of any supplemental indenture pursuant to this Article Nine may, and shall if required by the Trustee, bear a notation in form approved by the Trustee as to any matter provided for in such supplemental indenture. If the Company shall so determine, new Securities of any series so modified as to conform, in the opinion of the Trustee and the Company, to any such supplemental indenture may be prepared and executed by the Company and authenticated and delivered by the Trustee in exchange for Outstanding Securities of such series.

ARTICLE TEN COVENANTS

10.1 Payment of Principal, Premium and Interest. The Company covenants and agrees for the benefit of each series of Securities that it will duly and punctually pay the principal of and any premium and interest on the Securities of that series in accordance with the terms of the Securities and this Indenture.

10.2 Maintenance of Office or Agency. The Company will maintain in the Borough of Manhattan, The City of New York, an office or agency (which may be an office of the Trustee or Registrar or agent of the Trustee or Registrar) where Securities of that series may be presented or surrendered for payment, where Securities of that series may be surrendered for registration of transfer or exchange and where notices and demands to or upon the Company in respect of the Securities of that series and this Indenture may be served. The Company will give prompt written notice to the Trustee of the location, and any change in the location, of such office or agency. If at any time the Company shall fail to maintain any such required office or agency or shall fail to furnish the Trustee with the address thereof, such presentations, surrenders, notices and demands may be made or served at the Corporate Trust Office of the Trustee.

The Company may also from time to time designate one or more other offices or agencies where the Securities of one or more series may be presented or surrendered for any or all such purposes and may from time to time rescind such designations; provided, however, that no such designation or rescission shall in any manner relieve the Company of its obligation to maintain an office or agency in the Borough of Manhattan, The City of New York for such purposes. The Company will give prompt written notice to the Trustee of any such designation or rescission and of any change in the location of any such other office or agency.

Except as otherwise specified with respect to a series of Securities as contemplated by Section 3.1, the Company hereby initially designates the office of the Trustee

located at [_____] , New York, New York [_____] , as the Company's office or agency for each such purpose for each series of Securities.

10.3 Money for Securities Payments to be Held in Trust If the Company shall at any time act as its own Paying Agent, with respect to any series of Securities, it will, on or before each due date of the principal of and any premium or interest on any of the Securities of that series, segregate and hold in trust for the benefit of the Persons entitled thereto a sum sufficient to pay the principal and any premium and interest so becoming due until such sums shall be paid to such Persons or otherwise disposed of as herein provided and will promptly notify the Trustee of its action or failure so to act.

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Whenever the Company shall have one or more Paying Agents for any series of Securities, it will, prior to each due date of the principal of and any premium or interest on any Securities of that series, deposit with a Paying Agent a sum sufficient to pay the principal and any premium or interest so becoming due, such sum to be held in trust for the benefit of the Persons entitled to such principal, premium or interest, and (unless such Paying Agent is the Trustee) the Company will promptly notify the Trustee of its action or failure so to act. For purposes of this Section 10.3, should a due date for principal of and any premium or interest on, or sinking fund payment with respect to any series of Securities not be on a Business Day, such payment shall be due on the next Business Day without any interest for the period from the due date until such Business Day.

The Company will cause each Paying Agent for any series of Securities other than the Trustee to execute and deliver to the Trustee an instrument in which such Paying Agent shall agree with the Trustee, subject to the provisions of this Section, that such Paying Agent will:

(a) hold all sums held by it for the payment of the principal of and any premium or interest on Securities of that series in trust for the benefit of the Persons entitled thereto until such sums shall be paid to such Persons or otherwise disposed of as herein provided;

(b) give the Trustee notice of any Default by the Company (or any other obligor upon the Securities of that series) in the making of any payment of principal and any premium or interest on the Securities of that series; and

(c) at any time during the continuance of any such Default, upon the written request of the Trustee, forthwith pay to the Trustee all sums so held in trust by such Paying Agent.

The Company may at any time, for the purpose of obtaining the satisfaction and discharge of this Indenture or for any other purpose, pay, or by Company Order direct any Paying Agent to pay, to the Trustee all sums held in trust by the Company or such Paying Agent, such sums to be held by the Trustee upon the same trusts as those upon which such sums were held by the Company or such Paying Agent; and, upon such payment by any Paying Agent to the Trustee, such Paying Agent shall be released from all further liability with respect to such money.

Subject to any applicable escheat or abandoned property laws, any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of and any premium or interest on any Security of any series and remaining unclaimed for one year after such principal and any premium or interest has become due and payable shall be paid to the Company on Company Request, or (if then held by the Company) shall be discharged from such trust; and the Holder of such Security shall thereafter, as an unsecured general creditor, look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, shall thereupon cease; *provided, however*, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in a newspaper published in the English language, customarily published on each Business Day and of general circulation in the Borough of Manhattan, The City of New York, notice that such money remains unclaimed and that, after a date specified therein, which shall not be less than 30 days from the date of such publication, any unclaimed balance of such money then remaining will be repaid to the Company.

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10.4 Existence. Subject to Article Eight, the Company will do or cause to be done all things necessary to preserve and keep in full force and effect its existence, rights (charter and statutory) and franchises; provided, however, that the Company shall not be required to preserve any such right or franchise if the Company shall determine that the preservation thereof is no longer desirable in the conduct of the business of the Company.

10.5 Statement by Officers as to Default. Annually, within 150 days after the close of each fiscal year beginning with the first fiscal year during which one or more series of Securities are Outstanding, the Company will deliver to the Trustee a brief certificate (which need not include the statements set forth in Section 1.3) from the principal executive officer, principal financial officer or principal accounting officer of the Company as to his or her knowledge of the Company's compliance (without regard to any period of grace or requirement of notice provided herein) with all conditions and covenants under the Indenture and, if the Company shall be in Default, specifying all such Defaults and the nature and status thereof of which such officer has knowledge.

10.6 Additional Amounts. If the Securities of a series provide for the payment of additional amounts (as provided in Section 3.1(o)), at least 10 days prior to the first Interest Payment Date with respect to that series of Securities and at least 10 days prior to each date of payment of principal of, premium, if any, or interest on the Securities of that series if there has been a change with respect to the matters set forth in the below-mentioned Officer's Certificate, the Company shall furnish to the Trustee and the principal Paying Agent, if other than the Trustee, an Officer's Certificate instructing the Trustee and such Paying Agent whether such payment of principal of, premium, if any, or interest on the Securities of that series shall be made to holders of the Securities of that series without withholding or deduction for or on account of any tax, assessment or other governmental charge described in the Securities of that series. If any such withholding or deduction shall be required, then such Officer's Certificate shall specify by country the amount, if any, required to be withheld or deducted on such payments to such holders and shall certify the fact that additional amounts will be payable and the amounts so payable to each holder, and the Company shall pay to the Trustee or such Paying Agent the additional amounts required to be paid by this Section. The Company covenants to indemnify the Trustee and any Paying Agent for, and to hold them harmless against, any loss, liability or expense reasonably incurred without negligence or bad faith on their part arising out of or in connection with actions taken or omitted by any of them in reliance on any Officer's Certificate furnished pursuant to this Section 10.6.

Whenever in this Indenture there is mentioned, in any context, the payment of the principal of or any premium, interest or any other amounts on, or in respect of, any Securities of any series, such mention shall be deemed to include mention of the payment of additional amounts provided by the terms of such series established hereby or pursuant hereto to the extent that, in such context, additional amounts are, were or would be payable in respect thereof pursuant to such terms, and express mention of the payment of additional amounts (if applicable) in any provision hereof shall not be construed as excluding the payment of additional amounts in those provisions hereof where such express mention is not made.

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REDEMPTION OF SECURITIES

11.1 Applicability of Article. Securities of any series which are redeemable before their Stated Maturity shall be redeemable in accordance with their terms and (except as otherwise specified as contemplated by Section 3.1 for Securities of any series) in accordance with this Article Eleven.

11.2 Election to Redeem; Notice to Trustee. The election of the Company to redeem any Securities shall be evidenced by a Board Resolution. In case of any redemption at the election of the Company of less than all the Securities of any series, the Company shall, at least 15 days prior to the last date for the giving of notice of such redemption (unless a shorter notice shall be satisfactory to the Trustee), notify the Trustee of such Redemption Date and of the principal amount of Securities of such series to be redeemed and, if applicable, of the tenor of the Securities to be redeemed. In the case of any redemption of Securities (a) prior to the expiration of any restriction on such redemption provided in the terms of such Securities or elsewhere in this Indenture or (b) pursuant to an election of the Company that is subject to a condition specified in the terms of the Securities of the series to be redeemed, the Company shall furnish the Trustee with an Officer's Certificate evidencing compliance with such restriction or condition.

11.3 Selection by Trustee of Securities to be Redeemed If less than all the Securities of any series are to be redeemed (unless all of the Securities of such series and of a specified tenor are to be redeemed), the particular Securities to be redeemed shall be selected not more than 45 days prior to the Redemption Date by the Trustee, from the Outstanding Securities of such series not previously called for redemption, by lot, pro rata or by another method as the Trustee shall deem fair and appropriate, including any method required by the Depository with respect to any Global Securities (and in such manner as is not prohibited by applicable legal requirements) and which may provide for the selection for redemption of portions (equal to the minimum authorized denomination for Securities of that series or any integral multiple thereof) of the principal amount of Securities of such series of a denomination larger than the minimum authorized denomination for Securities of that series.

The Trustee shall promptly notify the Company in writing of the Securities selected for redemption and, in the case of any Securities selected for partial redemption, the principal amount thereof to be redeemed. If the Securities of any series to be redeemed consist of Securities having different dates on which the principal is payable or different rates of interest, or different methods by which interest may be determined or have any other different tenor or terms, then the Company may, by written notice to the Trustee, direct that the Securities of such series to be redeemed shall be selected from among the groups of such Securities having specified tenor or terms and the Trustee shall thereafter select the particular Securities to be redeemed in the manner set forth in the preceding paragraph from among the group of such Securities so specified.

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For all purposes of this Indenture, unless the context otherwise requires, all provisions relating to the redemption of Securities shall relate, in the case of any Securities redeemed or to be redeemed only in part, to the portion of the principal amount of such Securities which has been or is to be redeemed.

11.4 Notice of Redemption. Notice of redemption shall be given by first-class mail, postage prepaid, mailed not less than 30 nor more than 60 days prior to the Redemption Date, to each Holder of Securities to be redeemed, at his address appearing in the Security Register.

All notices of redemption shall state:

- (a) the Redemption Date,
- (b) the Redemption Price, or if not then ascertainable, the manner of calculation thereof,
- (c) if less than all the Outstanding Securities of any series are to be redeemed, the identification (and, in the case of partial redemption, the principal amounts) of the particular Securities to be redeemed,
- (d) that on the Redemption Date the Redemption Price will become due and payable upon each such Security to be redeemed and, if applicable, that interest thereon will cease to accrue on and after said date,
- (e) the place or places where such Securities are to be surrendered for payment of the Redemption Price, and
- (f) that the redemption is for a sinking fund, if such is the case.

Notice of redemption of Securities to be redeemed at the election of the Company shall be given by the Company or, at the Company's request, by the Trustee in the name and at the expense of the Company.

11.5 Deposit of Redemption Price. Prior to any Redemption Date, the Company shall deposit with the Trustee or with a Paying Agent (or, if the Company is acting as its own Paying Agent, segregate and hold in trust as provided in Section 10.3) an amount of money sufficient to pay the Redemption Price of, and (except if the Redemption Date shall be an Interest Payment Date) accrued interest on, all the Securities which are to be redeemed on that date.

11.6 Securities Payable on Redemption Date. Notice of redemption having been given as aforesaid, the Securities so to be redeemed shall, on the Redemption Date, become due and payable at the Redemption Price therein specified, and from and after such date (unless the Company shall default in the payment of the Redemption Price and accrued interest) such Securities shall cease to bear interest. Upon surrender of any such Security for redemption in accordance with said notice, such Security shall be paid by the Company at the Redemption Price, together with accrued interest to the Redemption Date; *provided, however*, that unless otherwise specified with respect to Securities of any series as contemplated in Section 3.1, installments of interest whose Stated Maturity is on or prior to the Redemption Date shall be payable to the Holders of such Securities, or one or more Predecessor Securities, registered as such at the close of business on the relevant record dates according to their terms and the provisions of Section 3.7.

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If any Security called for redemption shall not be so paid upon surrender thereof for redemption, the principal (and premium, if any) shall, until paid, bear interest from the Redemption Date at the rate prescribed therefor in the Security.

11.7 Securities Redeemed in Part. Any Security which is to be redeemed only in part shall be surrendered at a Place of Payment therefor (with, if the Company or the Trustee so requires, due endorsement by, or a written instrument of transfer in form satisfactory to the Company and the Trustee duly executed by, the Holder thereof or his attorney duly authorized in writing), and the Company shall execute, and the Trustee shall authenticate and deliver to the Holder of such Security without service charge, a new Security or Securities of the same series and tenor, of any authorized denomination as requested by such Holder, in aggregate principal amount equal to and in exchange for the unredeemed portion of the principal of the Security so surrendered.

12.1 Applicability of Article. The provisions of this Article Twelve shall be applicable to any sinking fund for the retirement of Securities of a series except as otherwise specified as contemplated by Section 3.1 for Securities of such series.

The minimum amount of any sinking fund payment provided for by the terms of Securities of any series is herein referred to as a **‘mandatory sinking fund payment.’** and any payment in excess of such minimum amount provided for by the terms of Securities of any series is herein referred to as an **‘optional sinking fund payment.’** If provided for by the terms of Securities of any series, the cash amount of any sinking fund payment may be subject to reduction as provided in Section 12.2. Each sinking fund payment shall be applied to the redemption of Securities of any series as provided for by the terms of Securities of such series.

12.2 Satisfaction of Sinking Fund Payments with Securities. The Company (a) may deliver Outstanding Securities of a series (other than any previously called for redemption) and (b) may apply as a credit Securities of a series which have been redeemed either at the election of the Company pursuant to the terms of such Securities or through the application of permitted optional sinking fund payments pursuant to the terms of such Securities, in each case in satisfaction of all or any part of any sinking fund payment with respect to the Securities of such series required to be made pursuant to the terms of such Securities as provided for by the terms of such series; provided that such Securities have not been previously so credited. Such Securities shall be received and credited for such purpose by the Trustee at the Redemption Price specified in such Securities for redemption through operation of the sinking fund and the amount of such sinking fund payment shall be reduced accordingly.

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12.3 Redemption of Securities for Sinking Fund. Not less than 45 days prior to each sinking fund payment date for any series of Securities (unless a shorter period shall be satisfactory to the Trustee), the Company will deliver to the Trustee an Officer’s Certificate specifying the amount of the next ensuing sinking fund payment for that series pursuant to the terms of that series, the portion thereof, if any, which is to be satisfied by payment of cash and the portion thereof, if any, which is to be satisfied by delivering and crediting Securities of that series pursuant to Section 12.2 and stating the basis for such credit and that such Securities have not been previously so credited, and will also deliver to the Trustee any Securities to be so delivered. Not less than 30 days before each such sinking fund payment date the Trustee shall select the Securities to be redeemed upon such sinking fund payment date in the manner specified in Section 11.3 and cause notice of the redemption thereof to be given in the name of and at the expense of the Company in the manner provided in Section 11.4. Such notice having been duly given, the redemption of such Securities shall be made upon the terms and in the manner stated in Section 11.6 and Section 11.7.

ARTICLE THIRTEEN DEFEASANCE

13.1 Option to Effect Legal Defeasance or Covenant Defeasance. The Company may, at the option of its Board of Directors evidenced by a resolution set forth in an Officer’s Certificate, and at any time, elect to have either Section 13.2 or Section 13.3 hereof be applied to all outstanding Securities upon compliance with the conditions set forth below in this Article Thirteen.

13.2 Legal Defeasance and Discharge. Upon the Company’s exercise under Section 13.1 hereof of the option applicable to this Section 13.2, the Company will, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, be deemed to have been discharged from their obligations with respect to all outstanding Securities on the date the conditions set forth below are satisfied (hereinafter, “**Legal Defeasance**”). For this purpose, Legal Defeasance means that the Company will be deemed to have paid and discharged the entire Debt represented by the outstanding Securities, which will thereafter be deemed to be “outstanding” only for the purposes of Section 13.5 hereof and the other sections of this Indenture referred to in clauses (a) and (b) below, and to have satisfied all their other obligations under such Securities and this Indenture (and the Trustee, on demand of and at the expense of the Company, shall execute proper instruments acknowledging the same), except for the following provisions which will survive until otherwise terminated or discharged hereunder:

(a) the rights of Holders of Outstanding Securities to receive payments in respect of the principal of, or interest or premium, if any, on such Securities when such payments are due from the trust referred to in Section 13.4 hereof;

(b) the Company’s obligations with respect to such Securities under Section 3.4, Section 3.5, Section 3.6, Section 10.2 and Section 10.3 hereof;

(c) the rights, powers, trusts, duties and immunities of the Trustee hereunder and the Company’s obligations in connection therewith; and

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(d) this Article Thirteen.

Subject to compliance with this Article Thirteen, the Company may exercise its option under this Section 13.2 notwithstanding the prior exercise of its option under Section 13.3 hereof.

13.3 Covenant Defeasance. Upon the Company’s exercise under Section 13.1 hereof of the option applicable to this Section 13.3, the Company will, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, be released from each of their obligations under the covenants contained in Section 7.4, Section 8.1 and Section 10.4 hereof as well as any Additional Defeasible Provisions (such release and termination hereinafter referred to as “**Covenant Defeasance**”), and the Securities will thereafter be deemed not “outstanding” for the purposes of any direction, waiver, consent or declaration or act of Holders (and the consequences of any thereof) in connection with such covenants, but will continue to be deemed “outstanding” for all other purposes hereunder (it being understood that such Securities will not be deemed outstanding for accounting purposes). For this purpose, Covenant Defeasance means that, with respect to the outstanding Securities, the Company may omit to comply with and will have no liability in respect of any term, condition or limitation set forth in any such covenant, whether directly or indirectly, by reason of any reference elsewhere herein to any such covenant or by reason of any reference in any such covenant to any other provision herein or in any other document and such omission to comply will not constitute a Default or an Event of Default under Section 5.1 hereof, but, except as specified above, the remainder of this Indenture and such Securities will be unaffected thereby. In addition, upon the Company’s exercise under Section 13.1 hereof of the option applicable to this Section 13.3 hereof, subject to the satisfaction of the conditions set forth in Section 13.4 hereof, Section 5.1(c) and Section 5.1(d) hereof and will not constitute Events of Default.

13.4 Conditions to Legal or Covenant Defeasance. In order to exercise either Legal Defeasance or Covenant Defeasance under either Section 13.2 or Section 13.3 hereof:

(a) the Company must irrevocably deposit with the Trustee, in trust, for the benefit of the Holders of the Securities, cash in U.S. dollars, non-callable U.S. Government Obligations, or a combination of cash in U.S. dollars and non-callable U.S. Government Obligations, in such amounts as will be sufficient, in the opinion of a nationally recognized investment bank, appraisal firm, or firm of independent public accountants to pay the principal of, or interest and premium, if any, on the Outstanding Securities on the stated date for payment thereof or on the applicable redemption date, as the case may be, and the Company must specify whether the Securities are being defeased to such stated date for payment or to a particular redemption date;

(b) in the case of an election under Section 13.2 hereof, the Company must deliver to the Trustee an Opinion of Counsel confirming that:

(i) the Company has received from, or there has been published by, the Internal Revenue Service a ruling; or

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(ii) since the Issue Date, there has been a change in the applicable federal income tax law, in either case to the effect that, and based thereon such Opinion of Counsel will confirm that, the Holders of the Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Legal Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Legal Defeasance had not occurred;

(c) in the case of an election under Section 13.3 hereof, the Company must deliver to the Trustee an Opinion of Counsel confirming that the Holders of the Outstanding Securities will not recognize income, gain or loss for federal income tax purposes as a result of such Covenant Defeasance and will be subject to federal income tax on the same amounts, in the same manner and at the same times as would have been the case if such Covenant Defeasance had not occurred;

(d) no Default or Event of Default has occurred and is continuing on the date of such deposit (other than a Default or Event of Default resulting from the borrowing of funds to be applied to such deposit);

(e) the deposit will not result in a breach or violation of, or constitute a default under, any other instrument to which the Company is a party or by which the Company is bound;

(f) such Legal Defeasance or Covenant Defeasance will not result in a breach or violation of, or constitute a default under, any material agreement or instrument (other than this Indenture) to which the Company or any of its Subsidiaries is a party or by which the Company or any of its Subsidiaries is bound;

(g) the Company must deliver to the Trustee an Officer's Certificate stating that the deposit was not made by the Company with the intent of preferring the Holders of Securities over the other creditors of the Company with the intent of defeating, hindering, delaying or defrauding any other creditors of the Company or others;

(h) the Company must deliver to the Trustee an Officer's Certificate, stating that all conditions precedent set forth in clauses (a) through (g) of this Section 13.4 have been complied with; and

(i) the Company must deliver to the Trustee an Opinion of Counsel (which Opinion of Counsel may be subject to customary assumptions, qualifications and exclusions), stating that all conditions precedent set forth in clauses (b), (c) and (e) of this Section 13.4 have been complied with; provided that the Opinion of Counsel with respect to clause (e) of this Section 13.4 may be to the knowledge of such counsel.

13.5 Deposited Money and U.S. Government Obligations to be Held in Trust, Other Miscellaneous Provisions Subject to Section 13.6 hereof, all money and non-callable U.S. Government Obligation (including the proceeds thereof) deposited with the Trustee (or other qualifying trustee, collectively for purposes of this Section 13.5, the "Trustee") pursuant to Section 13.4 hereof in respect of the Outstanding Securities will be held in trust and applied by the Trustee, in accordance with the provisions of such Securities and this Indenture, to the payment, either directly or through any Paying Agent (including the Company acting as Paying Agent) as the Trustee may determine, to the Holders of such Securities of all sums due and to become due thereon in respect of principal, premium, if any, and interest, but such money need not be segregated from other funds except to the extent required by law.

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The Company will pay and indemnify the Trustee against any tax, fee or other charge imposed on or assessed against the cash or non-callable U.S. Government Obligations deposited pursuant to Section 13.4 hereof or the principal and interest received in respect thereof other than any such tax, fee or other charge which by law is for the account of the Holders of the Outstanding Securities.

Notwithstanding anything in this Article Thirteen to the contrary, the Trustee will deliver or pay to the Company from time to time upon the request of the Company any money or non-callable U.S. Government Obligations held by it as provided in Section 13.4 hereof which, in the opinion of a nationally recognized firm of independent public accountants expressed in a written certification thereof delivered to the Trustee (which may be the opinion delivered under Section 13.4(a) hereof), are in excess of the amount thereof that would then be required to be deposited to effect an equivalent Legal Defeasance or Covenant Defeasance.

13.6 Repayment. Any money deposited with the Trustee or any Paying Agent, or then held by the Company, in trust for the payment of the principal of, premium, if any, or interest on any Security and remaining unclaimed for two years after such principal, premium, if any, or interest has become due and payable shall be paid to the Company on its request or (if then held by the Company) will be discharged from such trust; and the Holder of such Security will thereafter be permitted to look only to the Company for payment thereof, and all liability of the Trustee or such Paying Agent with respect to such trust money, and all liability of the Company as trustee thereof, will thereupon cease; provided, however, that the Trustee or such Paying Agent, before being required to make any such repayment, may at the expense of the Company cause to be published once, in the *New York Times* and *The Wall Street Journal* (national edition), notice that such money remains unclaimed and that, after a date specified therein, which will not be less than 30 days from the date of such notification or publication, any unclaimed balance of such money then remaining will be repaid to the Company.

13.7 Reinstatement. If the Trustee or Paying Agent is unable to apply any United States dollars or non-callable U.S. Government Obligations in accordance with Section 13.2 or Section 13.3 hereof, as the case may be, by reason of any order or judgment of any court or governmental authority enjoining, restraining or otherwise prohibiting such application, then the Company's obligations under this Indenture and the Securities will be revived and reinstated as though no deposit had occurred pursuant to Section 13.2 or Section 13.3 hereof until such time as the Trustee or Paying Agent is permitted to apply all such money in accordance with Section 13.2 or Section 13.3 hereof, as the case may be; provided, however, that, if the Company makes any payment of principal of, premium, if any, or interest on any Note following the reinstatement of its obligations, the Company will be subrogated to the rights of the Holders of such Securities to receive such payment from the money held by the Trustee or Paying Agent.

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14.1 Securities Subordinated to Senior Debt The Company and the Trustee each covenants and agrees, and each Holder, by its acceptance of a Security, likewise covenants and agrees that all Securities shall be issued subject to the provisions of this Article Fourteen; and each Person holding any Security, whether upon original issue or upon transfer, assignment or exchange thereof, accepts and agrees that the payment of the principal of, interest and premium, if any, on each and all of the Securities shall, to the extent and in the manner set forth in this Article Fourteen, be subordinated in right of payment to the prior payment in full, in cash or cash equivalents, of all existing and future Senior Debt.

14.2 No Payment on Securities in Certain Circumstances

(a) No direct or indirect payment by or on behalf of the Company of the principal of, interest and premium, if any, on each and all of the Securities (other than with the money, securities or proceeds held under any defeasance trust established in accordance with this Indenture), whether pursuant to the terms of the Securities or upon acceleration or otherwise shall be made if, at the time of such payment, there exists a default in the payment of all or any portion of the obligations on any Senior Debt and such default shall not have been cured or waived or the benefits of this sentence waived by or on behalf of the holders of such Senior Debt.

(b) During the continuance of any other event of default with respect to any Designated Senior Debt pursuant to which the maturity thereof may be accelerated, upon receipt by the Trustee of written notice from the trustee or other representative for the holders of such Designated Senior Debt (or the holders of at least a majority in principal amount of such Designated Senior Debt then outstanding), no payment of the principal of, interest or premium, if any, on each and all of the Securities (other than with the money, securities or proceeds held under any defeasance trust established in accordance with this Indenture) may be made by or on behalf of the Company upon or in respect of the Securities for a period (a "**Payment Blockage Period**") commencing on the date of receipt of such notice and ending 179 days thereafter (unless, in each case, such Payment Blockage Period has been terminated by written notice to the Trustee from such trustee of, or other representatives for, such holders or by payment in full in cash or cash equivalents of such Designated Senior Debt or such event of default has been cured or waived). Not more than one Payment Blockage Period may be commenced with respect to the Securities during any period of 360 consecutive days. Notwithstanding anything in this Indenture to the contrary, there must be 180 consecutive days in any 360-day period in which no Payment Blockage Period is in effect. No event of default that existed or was continuing (it being acknowledged that any subsequent action that would give rise to an event of default pursuant to any provision under which an event of default previously existed or was continuing shall constitute a new event of default for this purpose) on the date of the commencement of any Payment Blockage Period with respect to the Designated Senior Debt initiating such Payment Blockage Period shall be, or shall be made, the basis for the commencement of a second Payment Blockage Period by the trustee or other representative for the holders of such Designated Senior Debt, whether or not within a period of 360 consecutive days, unless such event of default shall have been cured or waived for a period of not less than 90 consecutive days.

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(c) In the event that, notwithstanding the foregoing, any payment shall be received by the Trustee or any Holder when such payment is prohibited by clause (a) or (b) above, the Trustee shall promptly notify the holders of Senior Debt of such prohibited payment and such payment shall be held in trust for the benefit of, and shall be paid over or delivered to, the holders of Senior Debt or their respective representatives, or to the trustee or trustees under any indenture pursuant to which any of such Senior Debt may have been issued, as their respective interests may appear, but only to the extent that, upon notice from the Trustee to the holders of Senior Debt that such prohibited payment has been made, the holders of the Senior Debt (or their representative or representatives of a trustee) within 30 days of receipt of such notice from the Trustee notify the Trustee of the amounts then due and owing on the Senior Debt, if any, and only the amounts specified in such notice to the Trustee shall be paid to the holders of Senior Debt and any excess above such amounts due and owing on Senior Debt shall be paid to the Company.

14.3 Payment over Proceeds upon Dissolution, Etc

(a) Upon any payment or distribution of assets or securities of the Company of any kind or character, whether in cash, property or securities (other than with the money, securities or proceeds held under any defeasance trust established in accordance with this Indenture), in connection with any dissolution or winding up or total or partial liquidation or reorganization of the Company, whether voluntary or involuntary, or in bankruptcy, insolvency, receivership or other proceedings or other marshalling of assets for the benefit of creditors, all amounts due or to become due upon all Senior Debt shall first be paid in full, in cash or cash equivalents, before the Holders or the Trustee on their behalf shall be entitled to receive any payment by (or on behalf of) the Company on account of the Securities, or any payment to acquire any of the Securities for cash, property or securities, or any distribution with respect to the Securities of any cash, property or securities. Before any payment may be made by, or on behalf of, the Company on any Security (other than with the money, securities or proceeds held under any defeasance trust established in accordance with this Indenture), in connection with any such dissolution, winding up, liquidation or reorganization, any payment or distribution of assets or securities for the Company of any kind or character, whether in cash, property or securities, to which the Holders or the Trustee on their behalf would be entitled, but for the provisions of this Article Fourteen, shall be made by the Company or by any receiver, trustee in bankruptcy, liquidating trustee, agent or other similar Person making such payment or distribution or by the Holders or the Trustee if received by them or it, directly to the holders of Senior Debt (pro rata to such holders on the basis of the respective amounts of Senior Debt held by such holders) or their representatives or to any trustee or trustees under any indenture pursuant to which any such Senior Debt may have been issued, as their respective interests appear, to the extent necessary to pay all such Senior Debt in full, in cash or cash equivalents, after giving effect to any concurrent payment, distribution or provision therefor to or for the holders of such Senior Debt.

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(b) To the extent any payment of Senior Debt (whether by or on behalf of the Company, as proceeds of security or enforcement of any right of setoff or otherwise) is declared to be fraudulent or preferential, set aside or required to be paid to any receiver, trustee in bankruptcy, liquidating trustee, agent or other similar Person under any bankruptcy, insolvency, receivership, fraudulent conveyance or similar law, then if such payment is recovered by, or paid over to, such receiver, trustee in bankruptcy, liquidating trustee or other similar Person, the Senior Debt or part thereof originally intended to be satisfied shall be deemed to be reinstated and outstanding as if such payment had not occurred. To the extent the obligation to repay any Senior Debt is declared to be fraudulent, invalid, or otherwise set aside under any bankruptcy, insolvency, receivership, fraudulent conveyance or similar law, then the obligation so declared fraudulent, invalid or otherwise set aside (and all other amounts that would come due with respect thereto had such obligation not been so affected) shall be deemed to be reinstated and outstanding as Senior Debt for all purposes hereof as if such declaration, invalidity or setting aside had not occurred.

(c) In the event that, notwithstanding the provision in clause (a) above prohibiting such payment or distribution, any payment or distribution of assets or securities of the Company of any kind or character, whether in cash, property or securities, shall be received by the Trustee or any Holder at a time when such payment or distribution is prohibited by clause (a) above and before all obligations in respect of Senior Debt are paid in full, in cash or cash equivalents, such payment or distribution shall be received and held in trust for the benefit of, and shall be paid over or delivered to, the holders of Senior Debt (pro rata to such holders on the basis of the respective amounts of Senior Debt held by such holders) or their representatives or to any trustee or trustees under any indenture pursuant to which any such Senior Debt may have been issued, as their respective interests appear, for application to the payment of all such Senior Debt remaining unpaid, in cash or cash equivalents, after giving effect to any concurrent payment, distribution or provision therefor to or for the holders of such Senior Debt.

(d) For purposes of this Section 14.3, the words "cash, property or securities" shall not be deemed to include, so long as the effect of this clause is not to cause

the Securities to be treated in any case or proceeding or similar event described in this [Section 14.3](#) as part of the same class of claims as the Senior Debt or any class of claims *pari passu* with, or senior to, the Senior Debt for any payment or distribution, securities of the Company or any other corporation provided for by a plan of reorganization or readjustment that are subordinated, at least to the extent that the Securities are subordinated, to the payment of all Senior Debt then outstanding; provided that (i) if a new corporation results from such reorganization or readjustment, such corporation assumes the Senior Debt and (ii) the rights of the holders of the Senior Debt are not, without the consent of such holders, altered by such reorganization or readjustment. The consolidation of the Company with, or the merger of the Company with or into, another corporation or the liquidation or dissolution of the Company following the sale, conveyance, transfer, lease or other disposition of all or substantially all of its property and assets to another corporation upon the terms and conditions provided in [Section 8.1](#) of this Indenture shall not be deemed a dissolution, winding up, liquidation or reorganization for the purposes of this [Section 14.3](#) if such other corporation shall, as a part of such consolidation, merger, sale, conveyance, transfer, lease or other disposition, comply (to the extent required) with the conditions stated in [Section 8.1](#) of this Indenture.

14.4 Subrogation.

(a) Upon the payment in full of all Senior Debt in cash or cash equivalents, the Holders shall be subrogated to the rights of the holders of Senior Debt to receive payments or distributions of cash, property or securities of the Company made on such Senior Debt until the principal of, premium, if any, and interest on the Securities shall be paid in full; and, for the purposes of such subrogation, no payments or distributions to the holders of the Senior Debt of any cash, property or securities to which the Holders or the Trustee on their behalf would be entitled except for the provisions of this Article Fourteen, and no payment pursuant to the provisions of this Article Fourteen to the holders of Senior Debt by the Holders or the Trustee on their behalf shall, as between the Company, its creditors other than holders of Senior Debt, and the Holders, be deemed to be a payment by the Company to or on account of the Senior Debt. It is understood that the provisions of this Article Fourteen are intended solely for the purpose of defining the relative rights of the Holders, on the one hand, and the holders of the Senior Debt, on the other hand.

(b) If any payment or distribution to which the Holders would otherwise have been entitled but for the provisions of this Article Fourteen shall have been applied, pursuant to the provisions of this Article Fourteen, to the payment of all amounts payable under Senior Debt, then, and in such case, the Holders shall be entitled to receive from the holders of such Senior Debt any payments or distributions received by such holders of Senior Debt in excess of the amount required to make payment in full, in cash or cash equivalents, of such Senior Debt of such holders.

14.5 Obligations of Company Unconditional.

(a) Nothing contained in this Article Fourteen or elsewhere in this Indenture or in the Securities is intended to or shall impair, as among the Company and the Holders, the obligation of the Company, which is absolute and unconditional, to pay to the Holders the principal of, premium, if any, and interest on the Securities as and when the same shall become due and payable in accordance with their terms, or is intended to or shall affect the relative rights of the Holders and creditors of the Company other than the holders of the Senior Debt, nor shall anything herein or therein prevent the Holders or the Trustee on their behalf from exercising all remedies otherwise permitted by applicable law upon default under this Indenture, subject to the rights, if any, under this Article Fourteen of the holders of the Senior Debt.

(b) Without limiting the generality of the foregoing, nothing contained in this Article Fourteen will restrict the right of the Trustee or the Holders to take any action to declare the Securities to be due and payable prior to their Stated Maturity pursuant to [Section 5.1](#) of this Indenture or to pursue any rights or remedies hereunder; provided, however, that all Senior Debt then due and payable or thereafter declared to be due and payable shall first be paid in full, in cash or cash equivalents, before the Holders or the Trustee are entitled to receive any direct or indirect payment from the Company with respect to any Security.

14.6 Notice to Trustee.

(a) The Company shall give prompt written notice to the Trustee of any fact known to the Company that would prohibit the making of any payment to or by the Trustee in respect of the Securities pursuant to the provisions of this Article Fourteen. The Trustee shall not be charged with the knowledge of the existence of any default or event of default with respect to any Senior Debt or of any other facts that would prohibit the making of any payment to or by the Trustee unless and until the Trustee shall have received notice in writing at its Corporate Trust Office to that effect signed by an Officer of the Company, or by a holder of Senior Debt or trustee or agent thereof; and prior to the receipt of any such written notice, the Trustee shall, subject to Article Six, be entitled to assume that no such facts exist; provided that, if the Trustee shall not have received the notice provided for in this [Section 14.6](#) at least two Business Days prior to the date upon which, by the terms of this Indenture, any monies shall become payable for any purpose (including, without limitation, the payment of the principal of, premium, if any, or interest on any Security), then, notwithstanding anything herein to the contrary, the Trustee shall have full power and authority to receive any monies from the Company and to apply the same to the purpose for which they were received, and shall not be affected by any notice to the contrary that may be received by it on or after such prior date except for an acceleration of the Securities prior to such application. Nothing contained in this [Section 14.6](#) shall limit the right of the holders of Senior Debt to recover payments as contemplated by this Article Fourteen. The foregoing shall not apply if the Paying Agent is the Company. The Trustee shall be entitled to rely on the delivery to it of a written notice by a Person representing himself or itself to be a holder of any Senior Debt (or a trustee on behalf of, or other representative of, such holder) to establish that such notice has been given by a holder of such Senior Debt or a trustee or representative on behalf of any such holder.

(b) In the event that the Trustee determines in good faith that any evidence is required with respect to the right of any Person as a holder of Senior Debt to participate in any payment or distribution pursuant to this Article Fourteen, the Trustee may request such Person to furnish evidence to the reasonable satisfaction of the Trustee as to the amount of Senior Debt held by such Person, the extent to which such Person is entitled to participate in such payment or distribution and any other facts pertinent to the rights of such Person under this Article Fourteen and, if such evidence is not furnished to the Trustee, the Trustee may defer any payment to such Person pending judicial determination as to the right of such Person to receive such payment.

14.7 Reliance on Judicial Order or Certificate of Liquidating Agent. Upon any payment or distribution of assets or securities referred to in this Article Fourteen, the Trustee and the Holders shall be entitled to rely upon any order or decree made by any court of competent jurisdiction in which bankruptcy, dissolution, winding up, liquidation or reorganization proceedings are pending, or upon a certificate of the receiver, trustee in bankruptcy, liquidating trustee, agent or other similar Person making such payment or distribution, delivered to the Trustee or to the Holders for the purpose of ascertaining the persons entitled to participate in such distribution, the holders of the Senior Debt and other Debt of the Company, the amount thereof or payable thereon, the amount or amounts paid or distributed thereon and all other facts pertinent thereto or to this Article Fourteen.

14.8 Trustee's Relation to Senior Debt

(a) The Trustee and any Paying Agent shall be entitled to all the rights set forth in this Article Fourteen with respect to any Senior Debt that may at any time be held by it in its individual or any other capacity to the same extent as any other holder of Senior Debt and nothing in this Indenture shall deprive the Trustee or any Paying Agent of any of its rights as such holder.

(b) With respect to the holders of Senior Debt, the Trustee undertakes to perform or to observe only such of its covenants and obligations as are specifically set forth in this Article Fourteen, and no implied covenants or obligations with respect to the holders of Senior Debt shall be read into this Indenture against the Trustee. The Trustee shall not be deemed to owe any fiduciary duty to the holders of Senior Debt (except as provided in Section 14.2 and Section 14.3 of this Indenture) and shall not be liable to any such holders if the Trustee shall in good faith mistakenly pay over or distribute to Holders of Securities or to the Company or to any other person cash, property or securities to which any holders of Senior Debt shall be entitled by virtue of this Article Fourteen or otherwise.

14.9 Subordination Rights Not Impaired by Acts or Omissions of the Company or Holders of Senior Debt No right of any present or future holders of any Senior Debt to enforce subordination as provided in this Article Fourteen will at any time in any way be prejudiced or impaired by any act or failure to act on the part of the Company or by any act or failure to act, in good faith, by any such holder, or by any noncompliance by the Company with the terms of this Indenture, regardless of any knowledge thereof that any such holder may have or otherwise be charged with. The provisions of this Article Fourteen are intended to be for the benefit of, and shall be enforceable directly by, the holders of Senior Debt.

14.10 Holders Authorize Trustee to Effectuate Subordination of Securities Each Holder by his acceptance of any Securities authorizes and expressly directs the Trustee on his behalf to take such action as may be necessary or appropriate to effectuate the subordination provided in this Article Fourteen, and appoints the Trustee his attorney-in-fact for such purposes, including, in the event of any dissolution, winding up, liquidation or reorganization of the Company (whether in bankruptcy, insolvency, receivership, reorganization or similar proceedings or upon an assignment for the benefit of creditors or otherwise) tending towards liquidation of the property and assets of the Company, the filing of a claim for the unpaid balance of its Securities in the form required in those proceedings. If the Trustee does not file a proper claim or proof in indebtedness in the form required in such proceeding at least 30 days before the expiration of the time to file such claim or claims, each holder of Senior Debt is hereby authorized to file an appropriate claim for and on behalf of the Holders.

14.11 Not to Prevent Events of Default The failure to make a payment on account of principal of, premium, if any, or interest on the Securities by reason of any provision of this Article Fourteen will not be construed as preventing the occurrence of an Event of Default.

14.12 Trustee's Compensation Not Prejudiced Nothing in this Article Fourteen will apply to amounts due to the Trustee pursuant to other sections of this Indenture, including Section 6.7.

14.13 No Waiver of Subordination Provisions Without in any way limiting the generality of Section 14.9, the holders of Senior Debt may, at any time and from time to time, without the consent of or notice to the Trustee or the Holders, without incurring responsibility to the Holders and without impairing or releasing the subordination provided in this Article Fourteen or the obligations hereunder of the Holders to the holders of Senior Debt, do any one or more of the following: (a) change the manner, place or terms of payment or extend the time of payment of, or renew or alter, Senior Debt or any instrument evidencing the same or any agreement under which Senior Debt is outstanding or secured; (b) sell, exchange, release or otherwise deal with any property pledged, mortgaged or otherwise securing Senior Debt; (c) release any Person liable in any manner for the collection of Senior Debt; and (d) exercise or refrain from exercising any rights against the Company and any other Person.

14.14 Payments May Be Paid Prior to Dissolution Nothing contained in this Article Fourteen or elsewhere in this Indenture shall prevent (i) the Company, except under the conditions described in Section 14.2 or Section 14.3, from making payments of principal of, premium, if any, and interest on the Securities, or from depositing with the Trustee any money for such payments, or (ii) the application by the Trustee of any money deposited with it for the purpose of making such payments of principal of, premium, if any, and interest on the Securities to the holders entitled thereto unless, at least two Business Days prior to the date upon which such payment becomes due and payable, the Trustee shall have received the written notice provided for in Section 14.2(b) of this Indenture (or there shall have been an acceleration of the Securities prior to such application) or in Section 14.15 of this Indenture. The Company shall give prompt written notice to the Trustee of any dissolution, winding up, liquidation or reorganization of the Company.

14.15 Trust Moneys Not Subordinated Notwithstanding anything contained herein to the contrary, payments from money or the proceeds of U.S. Government Obligations held in trust under Article Four by the Trustee for the payment of principal of, premium, if any, and interest on the Securities shall not be subordinated to the prior payment of any Senior Debt (provided that, at the time deposited, such deposit did not violate any then outstanding Senior Debt), and none of the Holders shall be obligated to pay over any such amount to any holder of Senior Debt.

This instrument may be executed in any number of counterparts, each of which so executed shall be deemed to be an original, but all such counterparts shall together constitute but one and the same instrument.

IN WITNESS WHEREOF, the parties hereto have caused this Indenture to be duly executed, and their respective corporate seals to be hereunto affixed and attested, all as of the day and year first above written.

ALTO INGREDIENTS, INC.

By: _____
Name: _____
Title: _____

[TRUSTEE]

By: _____
Name: _____
Title: _____

Troutman Pepper Hamilton Sanders LLP
5 Park Plaza, Suite 1400
Irvine, CA 92614-2545



troutman.com

June 23, 2023

Alto Ingredients, Inc.
1300 South Second Street
Pekin, Illinois 61554

Re: Registration Statement on Form S-3

Ladies and Gentlemen:

We have acted as counsel to Alto Ingredients, Inc., a Delaware corporation (the “**Company**”), in connection with the preparation and filing on the date hereof with the Securities and Exchange Commission (the “**Commission**”) of a registration statement on Form S-3 (as amended, the “**Registration Statement**”), including a base prospectus (the “**Base Prospectus**”), which provides that it will be supplemented by one or more prospectus supplements (each such prospectus supplement, together with the Base Prospectus, a “**Prospectus**”), under the Securities Act of 1933, as amended (the “**Securities Act**”), relating to the registration for issue and sale by the Company of up to \$100,000,000 aggregate offering amount of (i) shares of common stock, \$0.001 par value per share (the “**Common Stock**”), of the Company (the “**Common Shares**”), (ii) shares of the Company’s preferred stock, \$0.001 par value per share (the “**Preferred Stock**”), (iii) one or more series of debt securities of the Company, which may be convertible into or exchangeable for shares of Common Stock and/or Preferred Stock (the “**Debt Securities**”) to be issued under one or more indentures to be entered into between the Company, as issuer, and a trustee (forms of which are included as Exhibits 4.11 and 4.12 to the Registration Statement) and one or more board resolutions, supplements thereto or officer’s certificates thereunder (such indenture, together with the applicable board resolution, supplement or officer’s certificate pertaining to the applicable series of Debt Securities, the “**Applicable Indenture**”), (iv) warrants to purchase shares of Common Stock, shares of Preferred Stock and/or Debt Securities in one or more series (the “**Warrants**”), (v) shares of Common Stock and/or Preferred Stock issuable upon exercise of the Warrants or upon conversion or exchange of the Debt Securities, (vi) units comprised of one or more shares of Common Stock, shares of Preferred Stock, Debt Securities and/or Warrants, in any combination (the “**Units**”), and/or (vii) any combination of the foregoing securities. The Common Stock, Preferred Stock, Debt Securities, Warrants and Units, plus any additional Common Stock, Preferred Stock, Debt Securities, Warrants and Units that may be registered pursuant to any subsequent registration statement that the Company may hereafter file with the Commission pursuant to Rule 462(b) under the Securities Act in connection with the offering by the Company contemplated by the Registration Statement, are referred to herein collectively as the “**Registered Securities**.”

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June 23, 2023
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This opinion is being furnished in connection with the requirements of Item 601(b)(5) of Regulation S-K under the Securities Act, and no opinion is expressed herein as to any matter pertaining to the contents of the Registration Statement or related applicable Prospectus, other than as expressly stated herein with respect to the issue of the Registered Securities.

As such counsel, we have examined such matters of fact and questions of law as we have considered appropriate for purposes of this letter. With your consent, we have relied upon certificates and other assurances of officers of the Company and others as to factual matters without having independently verified such factual matters. We are opining herein as to the General Corporation Law of the State of Delaware, and with respect to the opinions set forth in numbered paragraphs 3 through 5 below, the internal laws of the State of New York, and we express no opinion with respect to the applicability thereto, or the effect thereon, of the laws of any other jurisdiction or, in the case of Delaware, any other laws, or as to any matters of municipal law or the laws of any local agencies within any state. We express no opinion herein with respect to compliance by the Company with the securities or “blue sky” laws of any state or other jurisdiction of the United States or of any foreign jurisdiction. In addition, we express no opinion and make no statement herein with respect to the antifraud laws of any jurisdiction.

In rendering this opinion, we have assumed: the genuineness and authenticity of all signatures on original documents; the legal capacity of all natural persons; the authenticity of all documents submitted to us as originals; the conformity to originals of all documents submitted to us as certified or photocopies; the accuracy and completeness of all documents and records reviewed by us; the accuracy, completeness and authenticity of certificates issued by any governmental official, office or agency and the absence of change in the information contained therein from the effective date of any such certificate; and the due authorization, execution and delivery of all documents where authorization, execution and delivery are prerequisites to the effectiveness of such documents.

Subject to the foregoing and the other matters set forth herein, it is our opinion that, as of the date hereof:

1. With respect to any shares of Common Stock to be offered by the Company pursuant to the Registration Statement (including any shares of Common Stock duly issued upon the exchange, exercise or conversion of any Registered Securities that are exchangeable or exercisable for, or convertible into, Common Stock), when (a) the issuance of such shares of Common Stock have been duly authorized by all necessary corporate action of the Company and (b) such shares of Common Stock have been duly issued and delivered against payment of the consideration therefor (not less than the par value of the Common Stock) as contemplated by the Registration Statement, Prospectus, any applicable Prospectus Supplement, any applicable Documents and such corporate action, such shares of Common Stock will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

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2. With respect to any shares of Preferred Stock to be offered by the Company pursuant to the Registration Statement (including any shares of Preferred Stock duly issued upon the exchange, exercise or conversion of Registered Securities that are exchangeable or exercisable for, or convertible into, Preferred Stock), when (a) a series of Preferred Stock has been duly established in accordance with the terms of the Certificate of Incorporation and applicable law and authorized by all necessary corporate action of the Company, (b) the relative rights, preferences, qualifications, and limitations of such series of Preferred Stock have been designated by all necessary corporate action of the Company and set forth in a Certificate of Designation properly filed with the Secretary of State of the State of Delaware, and (c) such shares of Preferred Stock have been duly issued and delivered against payment of the consideration therefor (not less than the par value of the Preferred Stock) as contemplated by the Registration Statement, Prospectus, any applicable Prospectus Supplement, any applicable Documents and such corporate action, such shares of Preferred Stock will be validly issued, fully paid and nonassessable. In rendering the foregoing opinion, we have assumed that the Company will comply with all applicable notice requirements regarding uncertificated shares provided in the General Corporation Law of the State of Delaware.

3. With respect to any series of Debt Securities to be offered by the Company pursuant to the Registration Statement, when (a) the applicable Indenture has been duly authorized, executed and delivered by the Company and the Trustee, (b) the specific terms of a particular series of Debt Securities have been duly established in accordance with such Indenture and applicable law, (c) such Debt Securities have been duly authorized by all necessary corporate action of the Company, duly authenticated by the Trustee and duly executed, issued and delivered against payment of the consideration therefor in accordance with such Indenture and as contemplated by the Registration Statement, Prospectus, any applicable Prospectus Supplement, any applicable Documents and such corporate action, and (d) if such Debt Securities are convertible into shares of Common Stock or Preferred Stock, such shares of Common Stock or Preferred Stock have been duly authorized and reserved for issuance by all necessary corporate action and in accordance with the applicable Indenture, such Debt Securities will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

4. With respect to any Warrants to be offered pursuant to the Registration Statement, when (a) a warrant agreement, if any, has been duly authorized, executed and delivered by the Company and the warrant agent named therein, (b) the specific terms of the particular issuance of Warrants have been duly established in accordance with such warrant agreement and applicable law and authorized by all necessary corporate action of the Company, (c) the Warrants have been duly executed, issued and delivered against payment therefor in accordance with such warrant agreement and as contemplated by the Registration Statement, the Prospectus, any applicable Prospectus Supplement, any applicable Documents and such corporate action, and (d) as applicable, (i) the shares of Common Stock or Preferred Stock issuable upon exercise of the Warrants have been duly authorized and reserved for issuance upon exercise of such Warrants and/or (ii) the Debt Securities issuable upon exercise of such Warrants have been duly authorized, executed and authenticated in accordance with the provisions of the applicable Indenture and reserved for delivery upon exercise of the Warrants, in each case by all necessary corporate action and in accordance with the terms of the Warrants and the warrant agreement, such Warrants will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

Alto Ingredients, Inc.
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5. With respect to any Units to be offered by the Company pursuant to the Registration Statement, when (a) a unit agreement has been duly authorized, executed and delivered by the Company and the counterparty named therein, (b) the specific terms of the particular issuance of Units have been duly established in accordance with such unit agreement and applicable law and authorized by all necessary corporate action of the Company, (c) the Units have been duly executed, authenticated, issued and delivered against payment therefor in accordance with such unit agreement and as contemplated by the Registration Statement, the Prospectus, any applicable Prospectus Supplement, any applicable Documents and such corporate action, and (d) as applicable, (i) the shares of Common Stock or Preferred Stock comprising the Units have been duly authorized and reserved for issuance and/or (ii) the Debt Securities comprising such Units have been duly authorized, executed and authenticated in accordance with the provisions of the applicable Indenture and reserved for delivery, in each case by all necessary corporate action and in accordance with the terms of the Units and the unit agreement, such Units will constitute valid and binding obligations of the Company, enforceable against the Company in accordance with their terms.

This opinion letter is given as of the date hereof, and we assume no obligation to advise you of any changes in applicable law or any other matters that may come to our attention after the date hereof. Our opinions are subject to: (i) the effect of bankruptcy, insolvency, reorganization, preference, fraudulent transfer, moratorium or other similar laws relating to or affecting the rights and remedies of creditors; (ii) (a) the effect of general principles of equity, whether considered in a proceeding in equity or at law (including the possible unavailability of specific performance or injunctive relief), (b) concepts of materiality, reasonableness, good faith and fair dealing, and (c) the discretion of the court before which a proceeding is brought; and (iii) the invalidity under certain circumstances under law or court decisions of provisions providing for the indemnification of or contribution to a party with respect to a liability where such indemnification or contribution is contrary to public policy. We express no opinion as to (a) any provision for liquidated damages, default interest, late charges, monetary penalties, make-whole premiums or other economic remedies to the extent such provisions are deemed to constitute a penalty, (b) consents to, or restrictions upon, governing law, jurisdiction, venue, arbitration, remedies, or judicial relief, (c) waivers of rights or defenses, (d) any provision requiring the payment of attorneys' fees, where such payment is contrary to law or public policy, (e) any provision permitting, upon acceleration of any Debt Securities, collection of that portion of the stated principal amount thereof which might be determined to constitute unearned interest thereon, (f) the creation, validity, attachment, perfection, or priority of any lien or security interest, (g) advance waivers of claims, defenses, rights granted by law, or notice, opportunity for hearing, evidentiary requirements, statutes of limitation, trial by jury or at law, or other procedural rights, (h) waivers of broadly or vaguely stated rights, (i) provisions for exclusivity, election or cumulation of rights or remedies, (j) provisions authorizing or validating conclusive or discretionary determinations, (k) grants of setoff rights, (l) proxies, powers and trusts, (m) provisions prohibiting, restricting, or requiring consent to assignment or transfer of any right or property, (n) any provision to the extent it requires that a claim with respect to a security denominated in other than U.S. dollars (or a judgment in respect of such a claim) be converted into U.S. dollars at a rate of exchange at a particular date, to the extent applicable law otherwise provides, and (o) the severability, if invalid, of provisions to the foregoing effect.

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With your consent, we have assumed (a) that each of the Applicable Indentures and Debt Securities, warrant agreements and Warrants, unit agreements and Units governing such Registered Securities (collectively, the "Documents") will be governed by the internal laws of the State of New York, (b) that each of the Documents has been or will be duly authorized, executed and delivered by the parties thereto, (c) that each of the Documents constitutes or will constitute legally valid and binding obligations of the parties thereto other than the Company, enforceable against each of them in accordance with their respective terms, and (d) that the status of each of the Documents as legally valid and binding obligations of the parties will not be affected by any (i) breaches of, or defaults under, agreements or instruments, (ii) violations of statutes, rules, regulations or court or governmental orders, or (iii) failures to obtain required consents, approvals or authorizations from, or to make required registrations, declarations or filings with, governmental authorities.

In rendering the opinions expressed above, we have further assumed that: (i) the Registration Statement and any amendments thereto (including post-effective amendments) will have become effective and comply with all applicable laws; (ii) the Registration Statement will be effective and will comply with all applicable laws at the time the Registered Securities are offered or issued as contemplated by the Registration Statement; (iii) the terms of the Securities will conform, where applicable, to the respective forms thereof filed as exhibits to the Registration Statement and the terms of all Registered Securities will conform in all material respects to the respective descriptions thereof in the Prospectus; (iv) the Registered Securities will be sold and delivered to, and paid for by, the purchasers at the price specified in, and in accordance with the terms of, an agreement or agreements duly authorized, executed and delivered by the parties thereto; and (v) certificates, if required, representing the Registered Securities will be duly executed and delivered and, to the extent required by any applicable agreement, duly authenticated and countersigned.

It is understood that this opinion is to be used only in connection with the offer and sale of Registered Securities while the Registration Statement is in effect.

This opinion is for your benefit in connection with the Registration Statement and may be relied upon by you and by persons entitled to rely upon it pursuant to the applicable provisions of the Securities Act. We consent to your filing this opinion as an exhibit to the Registration Statement and to the reference to our firm contained in the Prospectus under the heading "Legal Matters." We further consent to the incorporation by reference of this letter and consent into any registration statement or post-effective amendment to the Registration Statement filed pursuant to Rule 462(b) under the Securities Act with respect to the Registered Securities. In giving such consent, we do not thereby admit that we are in the category of persons whose consent is required under Section 7 of the Securities Act or the rules and regulations of the Commission thereunder.

Very truly yours,

/s/ Troutman Pepper Hamilton Sanders LLP

Troutman Pepper Hamilton Sanders LLP

Consent of Independent Registered Public Accounting Firm

We consent to the incorporation by reference in this Registration Statement on Form S-3 and related Prospectus of Alto Ingredients, Inc. of our reports dated March 14, 2023, relating to the consolidated financial statements and the effectiveness of internal control over financial reporting of Alto Ingredients, Inc., appearing in the Annual Report on Form 10-K of Alto Ingredients, Inc. for the year ended December 31, 2022.

We also consent to the reference to our firm under the heading “Experts” in such Prospectus.

/s/ RSM US LLP
Rochester, Minnesota
June 23, 2023

Calculation of Filing Fee Tables
Form S-3
(Form Type)
Alto Ingredients, Inc.

(Exact Name of Registrant as Specified in its Charter)

Table 1: Newly Registered and Carry Forward Securities

	Security Type	Security Class Title	Fee Calculation or Carry Forward Rule	Amount Registered	Proposed Maximum Offering Price Per Unit	Maximum Aggregate Offering Price	Fee Rate	Amount of Registration Fee	Carry Forward Form Type	Carry Forward File Number	Carry Forward Initial Effective Date	Filing Fee Previously Paid In Connection with Unsold Securities to be Carried Forward
Newly Registered Securities												
Fees to Be Paid	Debt	Debt Securities	(1)	(1)	(1)	(1)	(1)	(1)	—	—	—	—
Fees to Be Paid	Equity	Common Stock, \$0.001 par value per share	(1)	(1)	(1)	(1)	(1)	(1)	—	—	—	—
Fees to Be Paid	Equity	Preferred Stock, \$0.001 par value per share	(1)	(1)	(1)	(1)	(1)	(1)	—	—	—	—
Fees to Be Paid	Other	Warrants	(1)	(1)	(1)	(1)	(1)	(1)	—	—	—	—
Fees to Be Paid	Other	Units(2)	(1)	(1)	(1)	(1)	(1)	(1)	—	—	—	—
Fees to Be Paid	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf	457(o)	(1)	(1)	\$79,955,509.16(1)(3)	0.0001102	\$ 8,811.10	—	—	—	—
Fees Previously Paid	—	—	—	—	—	—	—	—	—	—	—	—
Carry Forward Securities												
Carry Forward Securities	Debt	Debt Securities	415(a)(6)	(3)					S-3	333-238939	July 1, 2020	
Carry Forward Securities	Equity	Common Stock, \$0.001 par value per share	415(a)(6)	(3)					S-3	333-238939	July 1, 2020	
Carry Forward Securities	Equity	Preferred Stock, \$0.001 par value per share	415(a)(6)	(3)					S-3	333-238939	July 1, 2020	
Carry Forward Securities	Other	Warrants	415(a)(6)	(3)					S-3	333-238939	July 1, 2020	
Carry Forward Securities	Other	Units(2)	415(a)(6)	(3)					S-3	333-238939	July 1, 2020	
Carry Forward Securities	Unallocated (Universal) Shelf	Unallocated (Universal) Shelf	415(a)(6)	(3)		\$ 20,044,490.84(3)			S-3	333-238939	July 1, 2020	\$ 2,601.78
						Total Offering Amounts		\$ 8,811.10				
						Total Fees Previously Paid		—				
						Total Fee Offsets		—				
						Net Fee Due		<u>\$ 8,811.10</u>				

(1) Pursuant to Instruction 2.A(iii)(b) of Item 16(b) of Form S-3, this information is not required to be included. An indeterminate amount of the securities of each identified class is being registered as may from time to time be offered under this registration statement at indeterminate prices, along with an indeterminate number of securities that may be issued upon exercise, settlement, exchange or conversion of securities offered or sold under this registration statement, as shall have an aggregate initial offering price up to \$100,000,000. Pursuant to Rule 416 under the Securities Act of 1933, as amended (the "Securities Act"), this registration statement also covers any additional securities that may be offered or issued in connection with any stock split, stock dividend or pursuant to anti-dilution provisions of any of the securities. Separate consideration may or may not be received for securities that are issuable upon conversion, exercise or exchange of other securities. In addition, the total amount to be registered and the proposed maximum aggregate offering price are estimated solely for the purpose of calculating the registration fee pursuant to Rule 457(o) under the Securities Act.

(2) Units may be issued under a unit agreement and will represent an interest in one or more securities registered under this registration statement including shares of common stock or preferred stock, debt securities or warrants, in any combination, which may or may not be separable from one another.

- (3) Pursuant to Rule 415(a)(6) under the Securities Act, the securities registered pursuant to this registration statement include \$20,044,490.84 of unsold securities (the "Unsold Securities") previously registered pursuant to the Registration Statement on Form S-3 (File No. 333-238939), which was declared effective on July 1, 2020 (the "Prior Registration Statement"). In connection with the filing of the Prior Registration Statement, the registrant paid a filing fee of \$2,601.78 associated with the offering of the Unsold Securities (based on the filing fee rate in effect at the time of the filing of the Prior Registration Statement). The filing fee associated with the offering of the Unsold Securities is hereby carried forward to be applied to the Unsold Securities registered hereunder, and no additional filing fee is due with respect to the Unsold Securities in connection with the filing of this registration statement. The registrant is also registering new securities on this registration statement with an aggregate initial offering price of \$79,955,509.16 (the "New Securities"), which aggregate offering price is not specified as to each class of securities. A filing fee of \$8,811.10 with respect to the New Securities is being paid in connection with the filing of this registration statement. To the extent that, after the filing date hereof and prior to the effectiveness of this registration statement, the registrant sells any Unsold Securities pursuant to the Prior Registration Statement, the registrant will identify in a pre-effective amendment to this registration statement the updated number of Unsold Securities from the Prior Registration Statement to be included in this registration statement pursuant to Rule 415(a)(6) and the updated amount of new securities to be registered on this registration statement. Pursuant to Rule 415(a)(6), the offering of securities under the Prior Registration Statement will be deemed terminated as of the date of effectiveness of this registration statement.
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