

CYTEC INDUSTRIES INC/DE/

Form 424B5

November 05, 2014

Table of Contents

Filed Pursuant to Rule 424(b)(5)

File Number 333-186862

The information in this preliminary prospectus supplement is not complete and may be changed. This preliminary prospectus supplement and the accompanying prospectus are not an offer to sell these securities nor do they seek an offer to buy these securities in any jurisdiction where the offer or sale is not permitted.

Subject to Completion, dated November 5, 2014

Preliminary Prospectus Supplement

(To Prospectus dated February 26, 2013)

\$250,000,000

Cytec Industries Inc.

% Senior Notes due 2025

We are offering \$250,000,000 aggregate principal amount of our % senior notes due 2025, or the notes.

The notes will mature on May 1, 2025. We will pay interest semi-annually on the notes on May 1 and November 1 of each year, beginning on May 1, 2015.

We may redeem some or all of the notes at any time at the applicable redemption price, as described under the caption Description of Notes Optional Redemption in this prospectus supplement. If a change of control triggering event occurs, we will be required to make an offer to repurchase the notes in cash from the holders at a price equal to 101% of their aggregate principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase. See Description of Notes Repurchase Upon Change of Control Triggering Event in this prospectus supplement.

The notes will be our unsecured senior obligations. The notes will rank equally in right of payment with all of our existing and future senior unsecured indebtedness and will rank senior in right of payment to any future indebtedness that specifically is subordinated to the notes. The notes will be effectively subordinated to all of our existing and future secured indebtedness to the extent of the assets securing such indebtedness.

The notes are a new issue of securities with no established trading market. We do not intend to list the notes on any securities exchange or to include them in any automated quotation system.

Investing in the notes involves risks. You should consider carefully the risk factors beginning on page S-6 of this prospectus supplement and the Risk Factors section in our Annual Report on Form 10-K for the year ended December 31, 2013, as updated by the Risk Factors section in our Quarterly Report on Form 10-Q for the quarter period ended September 30, 2014.

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

	Initial Public Offering Price(1)	Underwriting Discount	Proceeds, Before Expenses, to us
	%	%	%
Per Note			
Total	\$	\$	\$

(1) Plus accrued interest, if any, from the date of original issuance.

The underwriters named below expect to deliver the notes to purchasers in book-entry form through The Depository Trust Company (DTC) and its participants, including for the accounts of Euroclear Bank S.A./N.V., as operator of the Euroclear System, or Clearstream Banking, société anonyme on or about November , 2014.

Joint Book-Running Managers

Citigroup

RBS

Wells Fargo Securities

The date of this prospectus supplement is November , 2014.

Table of Contents

In making your investment decision, you should only rely on the information contained or incorporated by reference in this prospectus supplement, the accompanying prospectus and any free writing prospectus. We have not, and the underwriters have not, authorized anyone to provide you with additional or different information. If anyone provides you with additional, different or inconsistent information, you should not rely on it. This prospectus supplement and the accompanying prospectus are not an offer to sell or a solicitation of an offer to buy any securities other than the notes referred to herein. We are not, and the underwriters are not, making an offer to sell and are not soliciting an offer to buy the notes in any jurisdiction where the offer or sale is not permitted. You should not assume that the information appearing in this prospectus supplement, the accompanying prospectus, any free writing prospectus, as well as information we have previously filed with the Securities and Exchange Commission (the SEC) and incorporated by reference herein or therein, is accurate as of any date other than the date on the cover page of those documents. Our business, financial condition, results of operations and prospects may have changed since those respective dates.

TABLE OF CONTENTS**Prospectus Supplement**

	Page
<u>About This Prospectus Supplement</u>	S-ii
<u>Comments on Forward-Looking Statements</u>	S-iii
<u>Offering Summary</u>	S-1
<u>Risk Factors</u>	S-6
<u>Use of Proceeds</u>	S-9
<u>Capitalization</u>	S-10
<u>Description of Notes</u>	S-11
<u>Material U.S. Federal Income Tax Considerations</u>	S-16
<u>Underwriting</u>	S-22
<u>Where You Can Find More Information</u>	S-26
<u>Validity of the Notes</u>	S-26
<u>Experts</u>	S-27

Prospectus

<u>About This Prospectus</u>	1
<u>Available Information</u>	1
<u>Incorporation of Certain Information by Reference</u>	1
<u>Comments on Forward-Looking Statements</u>	3
<u>Cytec Industries Inc.</u>	4
<u>Risk Factors</u>	5
<u>Use of Proceeds</u>	6
<u>Ratio of Earnings to Fixed Charges</u>	7
<u>Description of Debt Securities We May Offer</u>	8
<u>Legal Ownership and Book-Entry Issuance</u>	16
<u>Plan of Distribution</u>	21
<u>Validity of the Debt Securities</u>	23
<u>Experts</u>	24

Table of Contents

ABOUT THIS PROSPECTUS SUPPLEMENT

This document consists of two parts. The first part is this prospectus supplement, which describes the specific terms of the notes we currently are offering and also adds to and updates information contained in the accompanying prospectus. The second part is the accompanying prospectus, which describes more general information, some of which may not apply to this offering of notes. This prospectus supplement and the accompanying prospectus are part of a registration statement that we filed with the SEC using the SEC's shelf registration rules. Generally, the term "prospectus" refers to this prospectus supplement and the accompanying prospectus together. You should read both this prospectus supplement and the accompanying prospectus, together with the documents incorporated by reference and the additional information described under the heading "Where You Can Find More Information" in this prospectus supplement.

To the extent there is a conflict between the information contained in this prospectus supplement, on the one hand, and the information contained in the accompanying prospectus, on the other hand, the information contained in this prospectus supplement shall control. If any statement in this prospectus supplement conflicts with any statement in a document that has been incorporated herein by reference, then you should consider only the statement in the more recent document. You should not assume that the information contained in or incorporated by reference in this prospectus supplement and the accompanying prospectus is accurate as of any date other than their respective dates.

In this prospectus supplement, except as otherwise indicated herein, references to "Cyttec, the Company, we, us or our" each refer collectively to Cyttec Industries Inc. and its subsidiaries and, in the context of the notes, "Cyttec, the Company, we, us and our" only refer to Cyttec Industries Inc., the issuer of the notes.

Table of Contents

COMMENTS ON FORWARD-LOOKING STATEMENTS

A number of the statements made by us in this prospectus supplement, the accompanying prospectus or in our documents incorporated by reference may be regarded as forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995.

Forward-looking statements include, among others, statements concerning: our or any of our segments' outlook for the future, anticipated results of acquisitions and divestitures, future aircraft build rates, expectations on the amount of our composite material content on new aerospace programs, timing of new mine startups, selling price, raw material cost and working capital trends, anticipated changes in currency rates and their effects, economic forces within the industries in which we operate, anticipated costs, target completion and qualification dates and expenditures for capital projects, expected sales growth, operational excellence strategies and their results, expected annual tax rates, our long-term goals, environmental remediation costs, future legal settlements, claims and judgments, and other statements of expectations, beliefs, future plans and strategies, anticipated events or trends and similar expressions concerning matters that are not historical facts. Such statements are based upon our current beliefs and expectations and are subject to significant risks and uncertainties including those discussed in Item 1A,

Risk Factors, in our Annual Report on Form 10-K for the year ended December 31, 2013, as updated by Item 1A Risk Factors, in our Quarterly Report on Form 10-Q for the quarter period ended September 30, 2014. Actual results may vary materially from those set forth in the forward-looking statements.

There are important factors that could cause our actual results, level of activity, performance or achievements to differ materially from the results, level of activity, performance or achievements expressed or implied by the forward-looking statements. The following factors, among others, could affect our anticipated results: our ability to successfully complete planned or ongoing restructuring and capital expansion projects, including realization of the anticipated results from such projects; our ability to maintain or improve current ratings on our debt; our ability to obtain financing or borrow fully against committed lines, changes in financial conditions or the financial status of our existing lenders markets; changes in global and regional economies; the financial well-being of our customers and the end-consumers of products incorporating our products; changes in demand for our products or in the quality, costs and availability of our raw materials, particularly when such raw materials are only available from a single or limited number of sources and cannot be substituted with other unqualified materials; timing of new product introductions; customer inventory reductions; changes in the build rates for certain aircraft programs; the actions of competitors; currency and interest rate fluctuations; technological change, particularly in aerospace program technology; manufacturing capacity constraints; our ability to renegotiate expiring long-term contracts; our ability to raise our selling prices when our product costs increase; changes in employee relations, possible strikes or work stoppages at our facilities or at the facilities of our customers or suppliers; new laws and regulations or changes in their interpretation, including those related to taxation, global warming and those particular to the purchase, sale, storage and manufacture of chemicals or operation of chemical plants; governmental funding for those military programs that utilize our products; litigation, including its inherent uncertainty and changes in the number or severity of various types of claims brought against us and changes in the laws applicable to these claims; quality problems; difficulties in plant operations and materials transportation, including those caused by hurricanes or other natural forces; short or long-term climate changes; environmental matters; returns on employee benefit plan assets and changes in the discount rates used to estimate employee benefit liabilities; changes in the medical cost trend rate; changes in accounting principles or new accounting standards; political instability or adverse treatment of foreign operations in any of the significant countries in which we or our customers operate; war, terrorism or sabotage; epidemics; and other unforeseen circumstances.

These risks and uncertainties are not exhaustive. Other sections of this prospectus supplement or the information incorporated by reference herein may include additional factors that could adversely affect our business and financial performance. Moreover, we operate in a very competitive and rapidly changing environment. New risks and uncertainties emerge from time to time, and it is not possible for our management to

Table of Contents

predict all risks and uncertainties, nor can management assess the impact of all factors on our business or the extent to which any factor, or combination of factors, may cause actual results to differ materially from those contained in any forward-looking statements.

Although we believe the expectations reflected in the forward-looking statements are reasonable, we cannot guarantee the accuracy of our estimated targets, future results, level of activity, performance or achievements. Moreover, neither we nor any other person assumes responsibility for the accuracy or completeness of any of these forward-looking statements. You should not rely upon forward-looking statements as predictions of future events. We are under no duty to update any of these forward-looking statements after the date of this prospectus supplement to conform our prior statements to actual results or revised expectations and we do not intend to do so.

S-iv

Table of Contents

OFFERING SUMMARY

The information below is a summary of the more detailed information included elsewhere in or incorporated by reference in this prospectus supplement. You should read carefully the following summary in conjunction with the more detailed information contained in this prospectus supplement, including the Risk Factors section beginning on page S-6 of this prospectus supplement, the accompanying prospectus and the information incorporated by reference herein and therein. This summary is not complete and does not contain all of the information you should consider before purchasing the notes.

Our Business

We are a global specialty materials and chemicals company focused on developing, manufacturing and selling value-added products. Our products serve a diverse range of end markets including aerospace and industrial materials, mining and plastics. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions for our customers. Our strategy is to develop a robust, sustainable portfolio of businesses that provide sales and earnings growth, minimum operating margins of 10%, and improving our return on assets by investing in and expanding our growth platforms while selectively monetizing or exiting non-strategic or under-performing businesses. We operate on a global basis with 48% of our 2013 revenues in North America, 31% in Europe, the Middle East, and Africa, 13% in Asia-Pacific and 8% in Latin America. We have manufacturing and research facilities located in 11 countries.

Cytec was incorporated in Delaware in December 1993. Our principal executive offices are located at Five Garret Mountain Plaza, Woodland Park, New Jersey 07424.

Tender Offer, Repurchase and Redemption

Tender Offer for and Redemption of the 2015 Notes

On November 5, 2014, we commenced an offer to purchase for cash any and all \$141,759,000 aggregate principal amount of our 6.0% Senior Notes due 2015 (the 2015 Notes).

The tender offer consideration payable for the 2015 Notes tendered and accepted by us for purchase in the tender offer will be determined by reference to an applicable fixed spread for the 2015 Notes over the yield based on the bid-side price of the applicable U.S. Treasury Security, as calculated by the dealer managers for the tender offer on the expiration date for the tender offer.

Additionally, accrued and unpaid interest will be paid on the 2015 Notes accepted for purchase up to, but not including, the settlement date.

The tender offer is not conditioned upon any minimum amount of the 2015 Notes being tendered. We intend to fund our purchase of the 2015 Notes tendered and accepted from the net proceeds of this offering. The tender offer is scheduled to expire at 5:00 p.m., New York City time, on November 12, 2014, and is conditioned, among other things, upon the issuance by us, prior to 5:00 p.m. on November 12, 2014, of a minimum of \$250.0 million aggregate principal amount of notes through this offering.

The tender offer is being made on the terms and subject to the conditions set forth in the offer to purchase, dated November 5, 2014, relating to the tender offer (the Offer to Purchase). The tender offer is being made solely pursuant to, and is governed by, the Offer to Purchase. We cannot assure you that the tender offer will be consummated in accordance with its terms, or at all, or that a significant principal amount of the 2015 Notes will be tendered and cancelled pursuant to the tender offer. This offering is not conditioned upon the successful consummation of the tender offer.

Table of Contents

Following the pricing of this offering and concurrently with the tender offer for the 2015 Notes, we intend to issue a redemption notice for any 2015 Notes not tendered in the tender offer. The remaining 2015 Notes will be redeemed in cash at the redemption price determined pursuant to the indenture governing the 2015 Notes plus accrued and unpaid interest up to, but excluding, the redemption date. From the redemption date forward, the 2015 Notes will no longer be deemed outstanding, interest will no longer accrue and holders will have no rights other than the right to receive the redemption price, without interest, upon surrender of the 2015 Notes. We expect that the notice of redemption for the 2015 Notes not tendered in the tender offer will be distributed to holders of the 2015 Notes on or about November 5, 2014 and will specify a redemption date of on or about December 5, 2014. This prospectus supplement does not constitute a notice of redemption or an obligation to issue a notice of redemption. Such notice, if made, will only be made in accordance with the applicable provisions of the indenture governing the 2015 Notes.

The consummation of the tender offer for, and redemption of, the 2015 Notes will result in a charge against earnings.

Repurchase and/or Redemption of the 2017 Notes

Following the pricing of this offering and concurrently with the tender offer for the 2015 Notes, we intend to repurchase or redeem \$82 million of our 8.95% Senior Notes due 2017 (the 2017 Notes and such amount of the 2017 Notes that are repurchased or redeemed, the Refinanced 2017 Notes). To the extent that \$82 million of the 2017 Notes are not repurchased, the balance of the \$82 million will be redeemed in cash at the redemption price determined pursuant to the indenture governing the 2017 Notes plus accrued and unpaid interest up to, but excluding, the redemption date. As of the close of business on November 4, 2014, there was \$164,286,000 aggregate principal amount of 2017 Notes outstanding. From the redemption date forward, the Refinanced 2017 Notes subject to the redemption will no longer be deemed outstanding, interest will no longer accrue and holders of such Refinanced 2017 Notes will have no rights other than the right to receive the redemption price, without interest, upon surrender of such Refinanced 2017 Notes.

The consummation of the repurchase or redemption of the Refinanced 2017 Notes will result in a charge against earnings.

Table of Contents

The Offering

The following summary contains basic information about the notes and is not intended to be a complete description of the notes. It does not contain all of the information that may be important to you. Certain of the terms and conditions described below are subject to important limitations and exceptions. For a more detailed description of the notes, please refer to the section entitled "Description of Notes" in this prospectus supplement and the section entitled "Description of Debt Securities We May Offer" in the accompanying prospectus.

Issuer	Cytec Industries Inc.
Notes Offered	\$250,000,000 aggregate principal amount of % Senior Notes due 2025.
Maturity	May 1, 2025 (the Stated Maturity Date).
Interest Rate	The notes will bear interest from November , 2014 at the rate of % per a semi-annually in arrears.
Interest Payment Dates	May 1 and November 1 of each year, beginning on May 1, 2015.
Ranking	The notes will be our unsecured senior obligations. The notes will rank equally in right of payment with all of our existing and future senior unsecured indebtedness that is not accorded a priority under applicable law. The notes will rank senior in right of payment to any future indebtedness that specifically is subordinated to the notes and will be effectively subordinated to any existing and future secured indebtedness.
Optional Redemption	<p>We may redeem some or all of the notes at any time at the applicable redemption price, as described under "Description of Notes - Optional Redemption" in this prospectus supplement.</p> <p>If we redeem the notes before February 1, 2025 (the date that is three months prior to the Stated Maturity Date) (the Early Call Date), the notes will be redeemed by us at a redemption price equal to the greater of:</p> <ol style="list-style-type: none"> (1) 100% of the principal amount of the notes; and (2) as determined by the Quotation Agent (as defined herein), the sum of the present values of the remaining scheduled payments of principal and interest on the notes being redeemed to the Early Call Date discounted to the redemption date on a semi-annual basis at the Treasury Rate (as defined herein), plus basis points; <p>plus, in each case, accrued and unpaid interest on the principal amount of the notes being redeemed to, but not including, the redemption date.</p>

S-3

Table of Contents

If we redeem the notes on or after February 1, 2025 (the date that is three months prior to the Stated Maturity Date), the notes will be redeemed by us at a redemption price equal to 100% of the principal amount of the notes to be so redeemed, plus accrued and unpaid interest on the principal amount being redeemed to, but not including, the redemption date. See [Description of Notes](#) [Optional Redemption](#) .

Repurchase Upon Change of Control Triggering Event Upon the occurrence of a change of control triggering event, as defined under [Description of Notes](#) [Repurchase Upon Change of Control Triggering Event](#) in this prospectus supplement, we will be required to make an offer to repurchase the notes in cash at a price equal to 101% of their aggregate principal amount, plus accrued and unpaid interest to, but not including, the date of repurchase.

Certain Covenants The indenture governing the notes will contain certain covenants that will, among other things, limit our ability and our restricted subsidiaries' ability to create or incur certain liens to secure indebtedness and engage in sale and leaseback transactions. In addition, the indenture will also limit our ability to consolidate or merge or convey, transfer or lease all or substantially all of our assets with or to any person. See [Description of Debt Securities We May Offer](#) [Certain Covenants](#) in the accompanying prospectus.

Use of Proceeds We intend to use a portion of the net proceeds from this offering to purchase for cash or redeem all of the \$141.8 million of our 2015 Notes and \$82.0 million of our 2017 Notes, including the payment of accrued interest and, in the event of redemption, any applicable make-whole premium, as described under [Tender Offer, Repurchase and Redemption](#). We intend to add any remaining net proceeds from the sale of the notes to our general corporate funds that may be used for, without limitation, the repayment of short-term borrowings or other debt or any other general corporate purpose, including the purchase of additional 2017 Notes. Before we use the net proceeds for these purposes, we may invest them in short-term, interest-bearing investment grade or U.S. government securities.

Risk Factors Investing in the notes involves risks. You should consider carefully all of the information in this prospectus supplement, the accompanying prospectus and the documents incorporated by reference herein and therein. In particular, you should consider carefully the specific risks set forth in [Risk Factors](#) beginning on page S-6 of this prospectus supplement for a discussion of certain risks in making an investment in the notes.

Further Issuances We may issue additional notes ranking equally with the notes (in the same form and terms other than the public offering price, the date of issuance and, under certain circumstances, the date from which interest thereon will begin to accrue and the initial interest payment date). Such notes may form a single series with the notes.

Table of Contents

Trustee	The Bank of New York Mellon.
Governing Law	The indenture provides that the indenture and the notes will be governed by, and construed in accordance with, the laws of the State of New York.
No Listing	We do not intend to list the notes on any securities exchange or to include them in any automated quotation system. The notes are a new issue of securities with no established trading market. See Risk Factors Risks Related to the Notes If an active trading market for the notes does not develop, you may not be able to resell them in this prospectus supplement.

Table of Contents

RISK FACTORS

An investment in the notes involves risks, including risks inherent in our business. You should consider carefully the risks described below and the other information contained or incorporated by reference in this prospectus supplement and the accompanying prospectus before making an investment decision, including the factors listed under Risk Factors in Item 1A of our Annual Report on Form 10-K for the year ended December 31, 2013 (which Annual Report on Form 10-K is incorporated by reference in this prospectus supplement), as updated by the factors listed under Risk Factors in Item 1A of our Quarterly Report on Form 10-Q for the quarter period ended September 30, 2014 (which Quarterly Report on Form 10-Q is incorporated by reference in this prospectus supplement). Additional risks and uncertainties not presently known to us or that we currently deem immaterial may also adversely affect our business and operations. If any of the matters described in the risk factors were to occur, our business, financial condition, results of operations, cash flows or prospects could be materially adversely affected. In such case, you could lose all or part of your investment.

Risks Related to the Notes

The notes will not be secured by any of our assets and are subject to prior claims of any of our existing or future secured creditors.

The notes are our unsecured senior obligations, ranking equally with our other senior unsecured indebtedness but effectively subordinated to any secured indebtedness to the extent of the value of the assets securing such indebtedness. The indenture governing the notes permits us and our subsidiaries to incur secured debt under specified circumstances without equally and ratably securing the notes. Any claims of existing or future secured lenders with respect to assets securing their loans will be prior to any claim of the holders of these notes with respect to those assets. In addition, the notes will not be guaranteed by any of our subsidiaries and therefore will be effectively subordinated to the debt and other liabilities of all our subsidiaries.

In the event of a bankruptcy, liquidation, dissolution, reorganization or similar proceeding, our pledged assets would be available to satisfy obligations of the secured debt before any payment could be made on the notes. To the extent that such assets cannot satisfy in full our secured debt, the holders of such debt would have a claim for any shortfall that would rank equally in right of payment with the notes. In that case, we may not have sufficient assets remaining to pay amounts due on any or all of the notes.

Negative covenants in the indenture offer only limited protection to holders of the notes.

The indenture governing the notes will contain negative covenants that apply to us and certain of our subsidiaries. However, the indenture does not:

require us to maintain any financial ratios or specific levels of net worth, revenues, income, cash flows or liquidity and, accordingly, does not protect holders of the notes in the event that we experience significant adverse changes in our financial condition or results of operations;

limit our ability to incur indebtedness that is equal in right of payment to the notes;

restrict our ability to repurchase our securities; or

restrict our ability to make investments or to repurchase or pay dividends or make other payments in respect of our common stock or other securities ranking junior to the notes.

In addition, the limitation on liens and limitation on sale and leaseback transactions covenants in the indenture contain exceptions that will allow us and our subsidiaries to create, grant or incur liens or security

Table of Contents

interests to secure a certain amount of indebtedness and a variety of other obligations without equally and ratably securing the notes. See Description of Debt Securities We May Offer Certain Covenants in the accompanying prospectus for a description of this covenant and related definitions. In light of these exceptions, holders of the notes may be effectively subordinated to new lenders.

Changes in our credit ratings may adversely affect the value of the notes.

The notes are expected to be rated by Moody's Investors Service (Moody's) and by Standard & Poor's Ratings Services (S&P). Agency credit ratings are not a recommendation to buy, sell or hold any security. Such ratings are limited in scope, and do not address all material risks relating to an investment in the notes, but rather reflect only the view of each rating agency at the time the rating is issued. An explanation of the significance of such rating may be obtained from such rating agency. We cannot assure you that these credit ratings will remain in effect for any given period of time. Such ratings could be lowered, suspended or withdrawn entirely by the rating agencies, if, in each rating agency's judgment, circumstances warrant such action. Any deterioration of the credit ratings assigned to the notes or to our credit ratings in general could impact adversely the trading prices of, and the liquidity of the market for, the notes and would also affect adversely our cost of borrowing, limit our access to the capital markets or result in more restrictive covenants in indentures or other loan agreements governing the terms of any future indebtedness that we may incur.

We may not be able to repurchase the notes upon a change of control triggering event.

Upon the occurrence of a change of control triggering event (as defined in Description of Notes), each holder of notes will have the right to require us to repurchase all or any part of such holder's notes at a price equal to 101% of their principal amount, plus accrued and unpaid interest, if any, to, but not including, the date of repurchase. If we experience a change of control triggering event, we cannot assure you that we would have sufficient financial resources available to satisfy our obligations to repurchase the notes. Our failure to repurchase the notes as required under the indenture governing the notes would result in a default under the indenture, which could result in defaults under our other debt agreements and have material adverse consequences for us and the holders of the notes. See Description of Notes Repurchase Upon Change of Control Triggering Event.

The terms of the indenture and the notes provide only limited protection against significant corporate events that could affect adversely your investment in the notes.

While the indenture and the notes contain terms intended to provide protection to holders upon the occurrence of certain events involving significant corporate transactions, these terms are limited and may not be sufficient to protect your investment in the notes. As described under Description of Notes Repurchase Upon Change of Control Triggering Event, upon the occurrence of a change of control triggering event, holders are entitled to require us to repurchase their notes at 101% of their principal amount. However, the definition of the term change of control triggering event is limited and does not cover a variety of transactions (such as acquisitions by us or recapitalizations) that negatively could affect the value of your notes. If we were to enter into a significant corporate transaction that negatively would affect the value of the notes, but that would not constitute a change of control triggering event, you would not have any rights to require us to repurchase the notes prior to their maturity, which also would adversely affect your investment.

If an active trading market for the notes does not develop, you may not be able to resell them.

The notes are a new issue of securities with no established trading market. As a result, we cannot provide any assurances that a trading market for the notes will ever develop or be maintained. Further, we can make no assurances as to the liquidity of any market that may develop for the notes, your ability to sell your notes or the price at which you will be able to sell your notes. Future trading prices of the notes will depend on many factors, including prevailing interest rates, our financial condition and results of operations, the condition of the industry

Table of Contents

in which we operate generally, the then-current ratings assigned to the notes and the market for similar securities. Accordingly, you may be required to bear the financial risk of an investment in the notes for an indefinite period of time. We do not intend to apply for listing or quotation of the notes on any securities exchange or automated quotation system, respectively.

S-8

Table of Contents

USE OF PROCEEDS

We expect the net proceeds from this offering of notes to be approximately \$ million after deducting the underwriting discount and our estimated expenses relating to the offering. We intend to use a portion of the net proceeds from this offering to purchase for cash or redeem all of the \$141.8 million of our 2015 Notes and \$82.0 million of our 2017 Notes, including the payment of accrued interest and any applicable redemption premium or repurchase premium, as described under Offering Summary Tender Offer, Repurchase and Redemption. We intend to add any remaining net proceeds from the sale of the notes to our general corporate funds that may be used for, without limitation, the repayment of short-term borrowings or other debt or any other general corporate purpose, including the purchase of additional 2017 Notes. Before we use the net proceeds for these purposes, we may invest them in short-term, interest-bearing investment grade or U.S. government securities.

Table of Contents**CAPITALIZATION**

The following table shows our unaudited cash and cash equivalents and total capitalization at September 30, 2014:

on an actual basis; and

on an as adjusted basis to reflect (i) the issuance and the sale of the notes offered hereby and (ii) the use of the net proceeds from this offering to purchase for cash or redeem all of the \$141.8 million of our 2015 Notes and \$82.0 million of our 2017 Notes, including the payment of accrued interest and, in the event of redemption, any applicable make-whole premium, each as described under Offering Summary Tender Offer, Repurchase and Redemption.

The following pro forma table does not reflect the payment of any expenses or underwriting discounts relating to this offering or the charge against earnings that will result from the consummation of the purchase or redemption of the 2015 Notes and the Refinanced 2017 Notes.

You should read this table in conjunction with Use of Proceeds appearing elsewhere in this prospectus supplement, the information set forth under Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Annual Report on Form 10-K for the year ended December 31, 2013, incorporated by reference into this prospectus supplement, and the financial statements and notes thereto incorporated by reference into this prospectus supplement, each as respectively updated by the information set forth under Management's Discussion and Analysis of Financial Condition and Results of Operations included in our Quarterly Report on Form 10-Q for the quarter period ended September 30, 2014, incorporated by reference into this prospectus supplement, and the financial statements and notes thereto incorporated by reference into this prospectus supplement, and the accompanying prospectus. On October 16, 2014, the Company authorized a stock buyback program in the amount of \$200.0 million.

	At September 30, 2014	
	Actual	As Adjusted
(Dollars in millions):		
Cash and cash equivalents	\$ 152.6	\$ 178.9
Short-term borrowings and current maturities of long-term debt		
Short-term borrowings	2.9	2.9
Other current maturities of long-term debt	0.1	0.1
Long-term debt		
Notes offered hereby		250.0
Five-year revolving credit agreement due June 2019 (1)		
6.0% Senior Notes due 2015 (2)	141.7	
8.95% Senior Notes due 2017 (2)	164.1	82.1
3.5% Senior Notes due 2023	397.6	397.6
Other	13.4	13.4
Total debt	719.8	746.1
Total equity	1,329.1	1,329.1
Total capitalization	\$ 2,048.9	\$ 2,075.2

- (1) As of September 30, 2014, there were no borrowings outstanding under our five-year revolving credit agreement and \$400.0 million remained available for borrowing.
- (2) Reflects the purchase or redemption of all of the \$141.8 million of the 2015 Notes and purchase or redemption of \$82.0 million of the 2017 Notes pursuant to a tender offer or redemption for the 2015 Notes and purchase or redemption of \$82.0 million of the 2017 Notes described under Offering Summary Tender Offer, Repurchase and Redemption. The amounts in the as adjusted column in the table above are based

Edgar Filing: CYTEC INDUSTRIES INC/DE/ - Form 424B5

on face amounts, exclude premiums, discounts and fees, and may differ depending on the outcome of the tender offer, repurchase and redemption.

S-10

Table of Contents

DESCRIPTION OF NOTES

The following description of the particular terms of the notes offered hereby supplements the description of the general terms and provisions of debt securities under the heading "Description of Debt Securities We May Offer" in the accompanying prospectus.

The notes are to be issued under an indenture (the "indenture"), dated as of March 15, 1998, between us and The Bank of New York Mellon (as successor to PNC Bank, National Association), as trustee (the "trustee"), registrar and paying agent, as supplemented from time to time. The terms of the notes include those stated in the indenture and those made part of the indenture by reference to the Trust Indenture Act of 1939, as amended. A copy of the indenture is available for inspection at the office of the trustee and is filed as Exhibit 4.1 to our Current Report on Form 8-K, dated March 18, 1998.

The following summary of certain provisions of the indenture is not complete and is qualified in its entirety by reference to the indenture. We urge you to read the indenture and the notes because they, and not this description, define your rights as holders of these notes. You may request copies of these agreements at the Company's address set forth in the section entitled "Where You Can Find More Information."

The definitions of certain capitalized terms used in the following summary are set forth below.

As used in this "Description of Notes," the terms "the Company," "we," "our," "us" and other similar references refer only to Cytec Industries Inc. and to any of our subsidiaries.

General

The notes initially will be limited to \$250.0 million aggregate principal amount and will mature and become due and payable, together with any accrued and unpaid interest thereon, on May 1, 2025. The notes will be represented by one or more global notes and will be issued only in fully registered form without coupons and only in minimum denominations of \$2,000 and integral multiples of \$1,000 in excess thereof.

The notes will bear interest at the annual rate set forth on the cover page of this prospectus supplement. Interest will be payable semi-annually in arrears on May 1 and November 1 of each year, beginning May 1, 2015. Interest on the notes will be paid to holders of record at the close of business on April 15 or October 15, whether or not a business day (as defined below), immediately before the applicable interest payment date. The amount of interest payable on the notes will be computed on the basis of a 360-day year consisting of twelve 30-day months.

If any interest payment date, redemption date or the maturity date of the notes is not a business day, then the related payment of interest or principal payable, as applicable, on such date will be paid on the next succeeding business day with the same force and effect as if made on such interest payment date, redemption date or maturity date and no further interest will accrue as a result of such delay. The term "business day" means each day which is not a Saturday, a Sunday or a day on which banking institutions are not required to be open in the State of New York.

Ranking

The notes will be our unsecured senior obligations. The notes will rank equally in right of payment with all of our existing and future senior unsecured indebtedness that is not accorded a priority under applicable law. The notes will rank senior in right of payment to any future indebtedness that specifically is subordinated to the notes and will be effectively subordinated to any existing and future secured indebtedness.

Table of Contents

Further Issuances

We may, from time to time, without notice to or consent of the holders of the notes, increase the principal amount of the notes that may be issued under the indenture and issue such increased principal amount (or any portion thereof), in which case any additional notes so issued will have the same form and terms (other than the public offering price, date of issuance and, under certain circumstances, the date from which interest thereon will begin to accrue and the initial interest payment date), and will carry the same right to receive accrued and unpaid interest, as the notes previously issued, and such additional notes will form a single series with the notes, including for purposes of voting, redemptions and offers to purchase and will rank equally and ratably with the notes offered hereby.

Optional Redemption

The notes may be redeemed, in whole or in part, at our option at any time or from time to time. In such event, we will notify the trustee of our decision to redeem the notes, in whole or in part, as provided in the indenture. If we redeem the notes prior to February 1, 2025 (the date that is three months prior to the Stated Maturity Date), the notes will be redeemed by us at a redemption price equal to the greater of:

100% of the principal amount of the notes being redeemed on the redemption date; or

as determined by the Quotation Agent (as defined herein), the sum of the present values of the remaining scheduled payments of principal and interest on the notes being redeemed to the Early Call Date discounted to the redemption date on a semi-annual basis at the Treasury Rate (as defined herein), plus basis points; plus, in each case, accrued and unpaid interest on the principal amount of the notes being redeemed to, but not including, the redemption date.

If we redeem the notes on or after February 1, 2025 (the date that is three months prior to the Stated Maturity Date), the notes will be redeemed by us at a redemption price equal to 100% of the principal amount of the notes to be so redeemed, plus accrued and unpaid interest on the principal amount being redeemed to, but not including, the redemption date.

Notwithstanding the foregoing, installments of interest on the notes that are due and payable on interest payment dates falling on or prior to a redemption date will be payable on the interest payment date to the registered holders as of the close of business on the relevant record date according to the notes and the indenture. The redemption price will be calculated on the basis of a 360-day year consisting of twelve 30-day months.

We will deliver notice of any redemption at least 30 days but not more than 60 days before the redemption date to each registered holder of the notes to be redeemed. Once notice of redemption is delivered, the notes called for redemption will become due and payable on the redemption date and at the applicable redemption price, plus accrued and unpaid interest to the redemption date.

Treasury Rate means, with respect to any redemption date, the rate per annum equal to the semi-annual equivalent yield to maturity of the Comparable Treasury Issue, assuming a price for the Comparable Treasury Issue (expressed as a percentage of its principal amount) equal to the Comparable Treasury Price for such redemption date.

Comparable Treasury Issue means the United States Treasury security selected by the Reference Treasury Dealer as having an actual or interpolated maturity comparable to the remaining term of the notes to be redeemed to the Early Call Date that would be utilized, at the time of selection and in accordance with customary financial practice, in pricing new issues of corporate debt securities of comparable maturity to the remaining term of the notes to the Early Call Date.

Table of Contents

Comparable Treasury Price means, with respect to any redemption date, (A) the arithmetic average of the Reference Treasury Dealer Quotations for such redemption date, after excluding the highest and lowest such Reference Treasury Dealer Quotations, or (B) if the Quotation Agent obtains fewer than four such Reference Treasury Dealer Quotations, the average of all such Quotations, or (C) if only one Reference Treasury Dealer Quotation is received, such Quotation.

Quotation Agent means, for the purposes of determining the redemption price, such primary U.S. government securities dealer as may be selected by us.

Reference Treasury Dealer means (A) Citigroup Global Markets Inc., RBS Securities Inc., Wells Fargo Securities, LLC (or their respective affiliates which are Primary Treasury Dealers), and their respective successors; provided, however, that if any of the foregoing shall cease to be a primary U.S. Government securities dealer in the United States (a Primary Treasury Dealer), we will substitute therefor another Primary Treasury Dealer; and (B) one or more other Primary Treasury Dealers selected by us.

Reference Treasury Dealer Quotation means, with respect to each Reference Treasury Dealer and any redemption date, the average, as determined by the Quotation Agent, of the bid and asked prices for the Comparable Treasury Issue (expressed in each case as a percentage of its principal amount) quoted in writing to the Quotation Agent by such Reference Treasury Dealer at 5:00 p.m. (New York City time) on the third business day preceding such redemption date.

On and after the redemption date, interest will cease to accrue on the notes or any portion of the notes called for redemption (unless we default in the payment of the redemption price and accrued interest). On or before the redemption date, we will deposit with a paying agent (or the trustee) money sufficient to pay the redemption price of and accrued interest on the note to be redeemed on that date. If less than all of the notes of any series are to be redeemed, the notes to be redeemed shall be selected by lot by DTC, in the case of notes represented by a global security, or by the trustee by a method the trustee deems to be fair and appropriate, in the case of notes that are not represented by a global security; provided, however, that no notes of a principal amount of \$2,000 or less shall be redeemed in part.

Repurchase Upon Change of Control Triggering Event

If a change of control triggering event (as defined below) occurs with respect to the notes, unless we have exercised our option to redeem the notes as described above, we will be required to make an offer (the change of control offer) to each holder to repurchase all or any part (equal to \$2,000 or any integral multiple of \$1,000 in excess thereof) of that holder's notes on the terms set forth in such notes. In the change of control offer, we will be required to offer payment in cash equal to 101% of the aggregate principal amount of notes repurchased, plus accrued and unpaid interest, if any, on the notes repurchased up to, but not including, the date of repurchase (the change of control payment). Within 30 days following any change of control triggering event or, at our option, prior to any change of control, but after public announcement of the transaction that constitutes or may constitute the change of control, a notice will be mailed to holders of the notes describing the transaction that constitutes or may constitute the change of control triggering event and offering to repurchase the notes on the date specified in the notice, which date will be no earlier than 30 days and no later than 60 days from the date such notice is mailed or, if the notice is mailed prior to the change of control, no earlier than 30 days and no later than 60 days from the date on which the change of control triggering event occurs (the change of control payment date). The notice will, if mailed prior to the date of consummation of the change of control, state that the offer to purchase is conditioned on the change of control triggering event occurring on or prior to the change of control payment date.

On the change of control payment date, we will, to the extent lawful:

accept for payment all notes or portions of notes properly tendered pursuant to the change of control offer;

Table of Contents

deposit with the paying agent an amount equal to the change of control payment in respect of all notes or portions of notes properly tendered; and

deliver or cause to be delivered to the trustee the notes properly accepted together with an officers certificate stating the aggregate principal amount of notes or portions of notes being repurchased.

We will publicly announce the results of the change of control offer on or as soon as possible after the date of purchase.

Except as described above, the indenture does not contain provisions that permit holders to require us to purchase or redeem the notes in the event of a takeover, recapitalization or similar transaction.

Our ability to pay cash to the holders of notes following the occurrence of a change of control may be limited by our then-existing financial resources. Therefore, sufficient funds may not be available when necessary to make any required repurchases.

The definition of change of control under the indenture includes a phrase relating to the direct or indirect sale, lease, transfer, conveyance or other disposition of all or substantially all of our and our subsidiaries assets taken as a whole. Although there is a limited body of case law interpreting the phrase substantially all, there is no precise established definition of the phrase under applicable law. Accordingly, the ability of a holder of notes to require us to repurchase such holder's notes as a result of a sale, lease, transfer, conveyance or other disposition of less than all of our and our subsidiaries assets taken as a whole to another person or group may be uncertain.

We will not be required to make a change of control offer upon the occurrence of a change of control triggering event if a third party makes such an offer in the manner, at the time and otherwise in compliance with the requirements for an offer made by us and the third party purchases all notes properly tendered and not withdrawn under its offer. In addition, we will not repurchase any notes if there has occurred and is continuing on the change of control payment date an event of default under the indenture, other than a default in the payment of the change of control payment upon a change of control triggering event.

We will comply in all material respects with the requirements of Rule 14e-1 under the Securities Exchange Act of 1934, as amended (the Exchange Act), and any other securities laws and regulations thereunder to the extent those laws and regulations are applicable in connection with the repurchase of the notes as a result of a change of control triggering event. To the extent that the provisions of any such securities laws or regulations conflict with the change of control offer provisions of the notes, we will comply with those securities laws and regulations and will not be deemed to have breached our obligations under the change of control offer provisions of the notes by virtue of any such conflict.

For purposes of the change of control offer provisions of the notes, the following terms will be applicable:

Below investment grade rating event means the rating on the notes is lowered independently by each of the rating agencies (as defined below) and the notes are rated below an investment grade rating (as defined below) by each of the rating agencies on any day during the period commencing 60 days prior to the first public notice of the occurrence of a change of control or our intention to effect a change of control and ending 60 days following the consummation of such change of control (which period will be extended so long as the rating of the notes is under publicly announced consideration for a possible downgrade by any of the rating agencies).

Change of control means the occurrence of any of the following:

- (1) the consummation of any transaction (including, without limitation, any merger or consolidation) the result of which is that any person (as that term is used in Section 13(d) of the Exchange Act) (other

Table of Contents

than us or one of our subsidiaries) becomes the beneficial owner (as defined in Rules 13d-3 and 13d-5 under the Exchange Act), directly or indirectly, of more than 50% of our voting stock (as defined below) or other voting stock into which our voting stock is reclassified, consolidated, exchanged or changed, measured by voting power rather than number of shares;

- (2) the direct or indirect sale, transfer, conveyance or other disposition (other than by way of merger or consolidation), in one or a series of related transactions, of all or substantially all of our assets and the assets of our subsidiaries, taken as a whole, to one or more persons (as that term is used in Section 13(d)(3) of the Exchange Act) (other than to us or one of our subsidiaries);
- (3) we consolidate with, or merge with or into, any person (as that term is used in Section 13(d) of the Exchange Act) or any such person consolidates with, or merges with or into, us, in either case, pursuant to a transaction in which any of our outstanding voting stock or the voting stock of such other person is converted into or exchanged for cash, securities or other property, other than pursuant to a transaction in which shares of our voting stock outstanding immediately prior to the transaction constitute, or are converted into or exchanged for, a majority of the voting stock of the surviving person immediately after giving effect to such transaction; or
- (4) the adoption of a plan relating to our liquidation or dissolution.

Change of control triggering event means the occurrence of both (1) a change of control and (2) a below investment grade rating event.

Investment grade rating means a rating equal to or higher than Baa3 (or the equivalent) by Moody's and BBB- (or the equivalent) by S&P, or, if applicable, the equivalent investment grade credit rating from any substitute rating agency selected by us.

Moody's means Moody's Investors Service, Inc., or any successor thereto.

Rating agencies means (1) each of Moody's and S&P and (2) if any of Moody's and S&P ceases to rate the notes or fails to make a rating of the notes publicly available for reasons outside of our control, a substitute rating agency (as defined below) in lieu thereof.

S&P means Standard & Poor's Ratings Services, a Standard & Poor's Financial Services LLC business, or any successor thereto.

Substitute rating agency means a nationally recognized statistical rating organization within the meaning of Section 3(a)(62) under the Exchange Act selected by us (as certified by a resolution of our board of directors) and that is reasonably acceptable to the trustee as a replacement agency for Moody's or S&P, or both of them, as the case may be.

Voting stock means, with respect to any specified person (as that term is used in Section 13(d) of the Exchange Act) as of any date, the capital stock of such person that is at the time entitled to vote generally in the election of the board of directors of such person.

Our credit agreement provides, and future credit agreements or other agreements relating to any indebtedness to which we become a party may provide, that certain events relating to a change in the control of our Company would constitute a default thereunder. If we experience such a change of control event that triggers a default under our credit agreements or such other agreements, we could seek a waiver of such default or seek to refinance the senior credit agreement or the indebtedness under such other agreements. In the event we do not obtain such a waiver or refinance the credit agreements or the indebtedness under such other agreements, such default could result in amounts outstanding under the credit agreements or such other agreements being declared due and payable, which could have a material adverse effect on us.

Table of Contents

MATERIAL U.S. FEDERAL INCOME TAX CONSIDERATIONS

This section describes the material United States federal income tax consequences of owning the notes we are offering. It applies to you only if you acquire notes in the offering at the offering price and you hold your notes as capital assets for United States federal income tax purposes. This section does not apply to you if you are a member of a class of holders subject to special rules, such as:

a dealer in securities,

a trader in securities that elects to use a mark-to-market method of accounting for your securities holdings,

a bank,

a life insurance company,

a tax-exempt organization,

a person that owns notes that are a hedge or that are hedged against interest rate risks,

a person that owns notes as part of a straddle or conversion transaction for tax purposes,

a person that purchases or sells notes as part of a wash sale for tax purposes, or

a United States holder (as defined below) whose functional currency for tax purposes is not the United States dollar.

If you purchase notes at a price other than the offering price, the amortizable bond premium or market discount rules may also apply to you. You should consult your tax advisor regarding this possibility.

This section is based on the Internal Revenue Code of 1986, as amended (the Internal Revenue Code), its legislative history, existing and proposed Treasury regulations under the Internal Revenue Code, published rulings and court decisions, all as currently in effect. These laws are subject to change, possibly on a retroactive basis.

If a partnership holds the notes, the United States federal income tax treatment of a partner will generally depend on the status of the partner and the tax treatment of the partnership. A partner in a partnership holding the notes should consult its tax advisor with regard to the United States federal income tax treatment of an investment in the notes.

Please consult your own tax advisor concerning the consequences of owning these notes in your particular circumstances under the Internal Revenue Code and the laws of any other taxing jurisdiction.

United States Holders

Edgar Filing: CYTEC INDUSTRIES INC/DE/ - Form 424B5

This subsection describes the tax consequences to a United States holder. You are a United States holder if you are a beneficial owner of a note and you are for United States federal income tax purposes:

a citizen or resident of the United States,

a domestic corporation,

an estate whose income is subject to United States federal income tax regardless of its source, or

S-16

Table of Contents

a trust if a United States court can exercise primary supervision over the trust's administration and one or more United States persons are authorized to control all substantial decisions of the trust.

If you are not a United States holder, this subsection does not apply to you and you should refer to "United States Alien Holders" below.

Payments of Interest

You will be taxed on interest on your note as ordinary income at the time you receive the interest or when it accrues, depending on your method of accounting for tax purposes.

We believe that the possibility of a repurchase upon certain changes in control is remote and therefore the rules governing contingent payment debt instruments should not apply to the notes. See "Description of Notes—Repurchase Upon Change of Control Triggering Event". Our position is not binding on the Internal Revenue Service. The Internal Revenue Service may take a position contrary to the above and may treat the notes as contingent payment debt instruments under the applicable Treasury regulations, which could affect the timing and character of income, gain or loss from holding or disposing of the notes. If the Internal Revenue Service were to successfully assert that the notes are contingent payment debt instruments, you may be required to accrue income on your notes in excess of stated interest, and to treat as ordinary income rather than capital gain any income realized on the taxable disposition of a note before the resolution of the contingency. The remainder of this discussion assumes that the notes are not treated as contingent payment debt instruments. You should consult your own tax advisor concerning this position.

Purchase, Sale, Exchange and Retirement of the Notes

Your tax basis in your note generally will be its cost. You will generally recognize capital gain or loss on the sale or retirement of your note equal to the difference between the amount you realize on the sale or retirement, excluding any amounts attributable to accrued but unpaid interest (which will be treated as interest payments), and your tax basis in your note. Capital gain of a noncorporate United States holder is generally taxed at preferential rates where the property is held for more than one year. The ability of a United States holder to deduct capital losses is subject to limitations.

Medicare Tax

A United States holder that is an individual or estate, or a trust that does not fall into a special class of trusts that is exempt from such tax, is subject to a 3.8% tax on the lesser of (1) the United States holder's net investment income (or undistributed net investment income in the case of an estate or trust) for the relevant taxable year and (2) the excess of the United States holder's modified adjusted gross income for the taxable year over a certain threshold (which in the case of individuals is between \$125,000 and \$250,000, depending on the individual's circumstances). A holder's net investment income generally includes its interest income and its net gains from the disposition of notes, unless such interest income or net gains are derived in the ordinary course of the conduct of a trade or business (other than a trade or business that consists of certain passive or trading activities). If you are a United States holder that is an individual, estate or trust, you are urged to consult your tax advisors regarding the applicability of the Medicare tax to your income and gains in respect of your investment in the notes.

United States Alien Holders

This subsection describes the tax consequences to a United States alien holder. You are a United States alien holder if you are a beneficial owner of a note and you are, for United States federal income tax purposes:

a nonresident alien individual,

a foreign corporation, or

Table of Contents

an estate or trust that in either case is not subject to United States federal income tax on a net income basis on income or gain from a note.

If you are a United States holder, this subsection does not apply to you.

Under United States federal income tax law, and subject to the discussion of backup withholding below, if you are a United States alien holder of a note:

we and other United States payors generally would not be required to deduct United States federal withholding tax from payments of principal and interest, to you if, in the case of payments of interest:

1. you do not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote,
2. you are not a controlled foreign corporation that is related to us through stock ownership, and
3. we do not have actual knowledge or reason to know that you are a United States person and:
 - a. you have furnished to us an Internal Revenue Service Form W-8BEN or W-8BEN-E or an acceptable substitute form upon which you certify, under penalties of perjury, that you are a non-United States person,
 - b. in the case of payments made outside the United States to you at an offshore account (generally, an account maintained by you at a bank or other financial institution at any location outside the United States), you have furnished to us documentation that establishes your identity and your status as the beneficial owner of the payment for United States federal income tax purposes and as a non-United States person,
 - c. we have received a withholding certificate (furnished on an appropriate Internal Revenue Service Form W-8 or an acceptable substitute form) from a person claiming to be:
 - i. a withholding foreign partnership (generally a foreign partnership that has entered into an agreement with the Internal Revenue Service to assume primary withholding responsibility with respect to distributions and guaranteed payments it makes to its partners),
 - ii. a qualified intermediary (generally a non-United States financial institution or clearing organization or a non-United States branch or office of a United States financial institution or clearing organization that is a party to a withholding agreement with the Internal Revenue Service), or
 - iii. a United States branch of a non-United States bank or of a non-United States insurance company, and the withholding foreign partnership, qualified intermediary or United States branch has received documentation upon which it may rely to treat the payment as made to a non-United States person that is, for United States federal income tax purposes, the beneficial owner of the payment on the notes in accordance with United States Treasury regulations (or, in the case of a qualified intermediary, in accordance with its agreement with the Internal Revenue Service),

Table of Contents

- d. we received a statement from a securities clearing organization, bank or other financial institution that holds customers securities in the ordinary course of its trade or business,
 - i. certifying to us under penalties of perjury that an Internal Revenue Service Form W-8BEN or W-8BEN-E or an acceptable substitute form has been received from you by it or by a similar financial institution between it and you, and
 - ii. to which is attached a copy of the Internal Revenue Service Form W-8BEN or W-8BEN-E or acceptable substitute form, or

- e. we otherwise possess documentation upon which we may rely to treat the payment as made to a non-United States person that is, for United States federal income tax purposes, the beneficial owner of the payments on the notes in accordance with United States Treasury regulations;

we and other United States payors generally would not be required to deduct United States federal withholding tax from payments of principal and interest, to you if, in the case of payments of interest, such interest is effectively connected with your conduct of a trade or business in the United States and you provide a properly executed IRS Form W-8ECI, and

no deduction for any United States federal withholding tax would be made from any gain that you realize on the sale or exchange of your note.

Also, if you are a United States alien holder of a note, you generally will not be subject to United States federal income tax on interest paid on the notes or gain realized on the sale, exchange or retirement of a note unless:

the interest or gain is effectively connected with your conduct of a trade or business in the United States and, if an applicable income tax treaty so provides, the interest or gain is attributable to a permanent establishment or a fixed base maintained by the United States alien holder within the United States, or

in the case of gain, you are an individual, you are present in the United States for 183 or more days during the taxable year in which the gain is realized and certain other conditions exist.

Further, a note held by an individual who at death is not a citizen or resident of the United States would not be includible in the individual's gross estate for United States federal estate tax purposes if:

the decedent did not actually or constructively own 10% or more of the total combined voting power of all classes of our stock entitled to vote at the time of death, and

the income on the note would not have been effectively connected with a United States trade or business of the decedent at the same time.

FATCA Withholding

A 30% withholding tax (FATCA withholding) may be imposed on certain payments to you or to certain foreign financial institutions, investment funds and other non-United States persons receiving payments on your behalf if you or such persons fail to comply with certain information reporting requirements. Such payments will include United States-source interest and the gross proceeds from the sale or other disposition of notes that can produce United States-source interest. Payments of interest that you receive in respect of the notes could be affected by this

Edgar Filing: CYTEC INDUSTRIES INC/DE/ - Form 424B5

withholding if you are subject to the FATCA information reporting requirements and fail to comply with them or if you hold notes through a non-United States person (e.g., a foreign bank or broker) that fails to comply with these requirements (even if payments to you would not otherwise have been subject to FATCA withholding). Payments of gross proceeds from a sale or other disposition of notes could also be subject

S-19

Table of Contents

to FATCA withholding unless such disposition occurs before January 1, 2017. You should consult your own tax advisors regarding the relevant United States law and other official guidance on FATCA withholding.

We will not pay any additional amounts in respect of FATCA withholding, so if this withholding applies, you will receive significantly less than the amount that you would have otherwise received with respect to your notes. Depending on your circumstances, you may be entitled to a refund or credit in respect of some or all of this withholding. However, even if you are entitled to have any such withholding refunded, the required procedures could be cumbersome and significantly delay the holder's receipt of any amounts withheld.

Backup Withholding and Information Reporting

In general, if you are a noncorporate United States holder, we and other payors are required to report to the Internal Revenue Service all payments of principal and interest on your note. In addition, we and other payors are required to report to the Internal Revenue Service any payment of proceeds of the sale of your note before maturity within the United States.

Additionally, backup withholding, currently at a rate of 28%, would apply to any payments if you fail to provide an accurate taxpayer identification number, or you are notified by the Internal Revenue Service that you have failed to report all interest and dividends required to be shown on your federal income tax returns.

In general, if you are a United States alien holder, we and other payors are required to report payments of interest on your notes on Internal Revenue Service Form 1042-S. Payments of principal or interest made by us and other payors to you would otherwise not be subject to information reporting requirements and backup withholding, provided that the certification requirements described above under "United States Alien Holders" are satisfied or you otherwise establish an exemption. In addition, payment of the proceeds from the sale of notes effected at a United States office of a broker will not be subject to backup withholding and information reporting provided that:

the broker does not have actual knowledge or reason to know that you are a United States person and you have furnished to the broker:

an appropriate Internal Revenue Service Form W-8 or an acceptable substitute form upon which you certify, under penalties of perjury, that you are not a United States person, or

other documentation upon which it may rely to treat the payment as made to a non-United States person in accordance with United States Treasury regulations, or

you otherwise establish an exemption.

If you fail to establish an exemption and the broker does not possess adequate documentation of your status as a non-United States person, the payments may be subject to information reporting and backup withholding. However, backup withholding will not apply with respect to payments made to an offshore account maintained by you unless the broker has actual knowledge that you are a United States person.

In general, payment of the proceeds from the sale of notes effected at a foreign office of a broker will not be subject to information reporting or backup withholding. However, a sale effected at a foreign office of a broker would be subject to information reporting and backup withholding if:

the proceeds are transferred to an account maintained by you in the United States,

the payment of proceeds or the confirmation of the sale is mailed to you at a United States address, or

the sale has some other specified connection with the United States as provided in United States Treasury regulations,

S-20

Table of Contents

unless the broker does not have actual knowledge or reason to know that you are a United States person and the documentation requirements described above (relating to a sale of notes effected at a United States office of a broker) are met or you otherwise establish an exemption.

In addition, payment of the proceeds from the sale of notes effected at a foreign office of a broker would be subject to information reporting if the broker is:

a United States person,

a controlled foreign corporation for United States tax purposes,

a foreign person 50% or more of whose gross income is effectively connected with the conduct of a United States trade or business for a specified three-year period, or

a foreign partnership, if at any time during its tax year:

one or more of its partners are United States persons, as defined in United States Treasury regulations, who in the aggregate hold more than 50% of the income or capital interest in the partnership, or

such foreign partnership is engaged in the conduct of a United States trade or business,

unless the broker does not have actual knowledge or reason to know that you are a United States person and the documentation requirements described above (relating to a sale of notes effected at a United States office of a broker) are met or you otherwise establish an exemption. Backup withholding would apply if the sale is subject to information reporting and the broker has actual knowledge that you are a United States person.

The amount of any backup withholding from a payment to a holder may be allowed as a credit against the holder's United States federal income tax liability and may entitle the holder to a refund, provided that the required information is furnished to the Internal Revenue Service in a timely manner.

Table of Contents

UNDERWRITING

Citigroup Global Markets Inc., RBS Securities Inc. and Wells Fargo Securities, LLC are acting as joint book-running managers of the offering and as representatives of the underwriters named below. Subject to the terms and conditions stated in the underwriting agreement dated the date of this prospectus supplement, each underwriter named below has severally agreed to purchase, and we have agreed to sell to that underwriter, the principal amount of notes set forth opposite the underwriter's name.

Underwriter	Principal Amount of Notes
Citigroup Global Markets Inc.	\$
RBS Securities Inc.	
Wells Fargo Securities, LLC	
Total	\$ 250,000,000

The underwriting agreement provides that the obligations of the underwriters to purchase the notes included in this offering are subject to certain conditions precedent. The underwriters are obligated to purchase all the notes if they purchase any of the notes.

We have been advised by the representatives of the underwriters that the underwriters propose to offer some of the notes directly to the public at the public offering price set forth on the cover page of this prospectus supplement and some of the notes to dealers at the public offering price less a concession not to exceed % of the principal amount of the notes. The underwriters may allow, and dealers may reallow, a concession not to exceed % of the principal amount of the notes on sales to other dealers. After the initial offering of the notes to the public, the underwriters may change the public offering price, the concession and the other selling terms. The offering of the notes by the underwriters is subject to receipt and acceptance and subject to the underwriters' right to reject any order in whole or in part.

The following table shows the underwriting discount that we are to pay to the underwriters in connection with this offering (expressed as a percentage of the principal amount of the notes).

Per note	Paid by Cytec
Total	\$ %

In connection with the offering, the underwriters may purchase and sell notes in the open market. Purchases and sales in the open market may include short sales, purchases to cover short positions and stabilizing purchases.

Short sales involve secondary market sales by the underwriters of a greater number of notes than they are required to purchase in the offering.

Covering transactions involve purchases of notes in the open market after the distribution has been completed in order to cover short positions.

Stabilizing transactions involve bids to purchase notes so long as the stabilizing bids do not exceed a specified maximum. Purchases to cover short positions and stabilizing purchases, as well as other purchases by the underwriters for their own accounts, may have the effect of preventing or retarding a decline in the market price of the notes. They may also cause the price of the notes to be higher than the price that would otherwise exist in the open market in the absence of these transactions. The underwriters may also impose a penalty bid. This occurs when a

Table of Contents

particular underwriter repays to the underwriters a portion of the underwriting discount received by it because the underwriters have repurchased notes sold by or for the account of such underwriter in stabilizing or short covering transactions. The underwriters may conduct these transactions in the over-the-counter market or otherwise. If the underwriters commence any of these transactions, they may discontinue them at any time.

We expect that delivery of the notes will be made against payment therefore on or about November , 2014, which will be the fourth business day following the date of pricing of the notes, or T+4. Under Rule 15c6-1 of the Exchange Act, trades in the secondary market generally are required to settle in three business days, unless the parties to any such trade expressly agree otherwise. Accordingly, purchasers who wish to trade notes on the date of pricing will be required, by virtue of the fact that the notes initially will settle in T+4, to specify an alternate settlement cycle at the time of any such trade to prevent a failed settlement. Purchasers of notes who wish to trade notes on the date of pricing should consult their own advisors.

We estimate that our total expenses for this offering, other than the underwriting discount, will be approximately \$700,000.

We have agreed to indemnify the underwriters against certain liabilities, including liabilities under the Securities Act of 1933, as amended, or to contribute to payments the underwriters may be required to make because of any of those liabilities.

The underwriters and their respective affiliates are full service financial institutions engaged in various activities, which may include securities trading, commercial and investment banking, financial advisory, investment management, investment research, principal investment, hedging, financing and brokerage activities. Certain of the underwriters and their respective affiliates have performed commercial banking, investment banking and advisory services for us from time to time for which they have received customary fees and reimbursement of expenses. The underwriters may, from time to time, engage in transactions with and perform services for us in the ordinary course of their business for which they may receive customary fees and reimbursement of expenses. Certain affiliates of Citigroup Global Markets Inc. are the lender and administrative agent, respectively, of our revolving credit agreement. In addition, Citigroup Global Markets Inc., RBS Securities Inc. and Wells Fargo Securities, LLC are acting as dealer managers in connection with our offer to purchase our 2015 Notes as described under Offering Summary Tender Offer, Repurchase and Redemption.

In the ordinary course of their various business activities, the underwriters and their respective affiliates may make or hold a broad array of investments and actively trade debt and equity securities (or related derivative securities) and financial instruments (including bank loans) for their own account and for the accounts of their customers, and such investment and securities activities may involve securities and/or instruments of the issuer. The underwriters and their respective affiliates may also make investment recommendations and/or publish or express independent research views in respect of such securities or instruments and may at any time hold, or recommend to clients that they acquire, long and/or short positions in such securities and instruments.

To the extent the underwriters and their respective affiliates hold 2015 Notes or Refinanced 2017 Notes, they will receive proceeds from this offering.

European Economic Area

In relation to each Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State), each underwriter has represented and agreed that with effect from and including the date on which the Prospectus Directive is implemented in that Relevant Member State (the Relevant Implementation Date) it has not made and will not make an offer of notes which are the subject of the offering contemplated by this prospectus supplement and the accompanying prospectus to the public in that Relevant Member State other than:

- (a) to any legal entity which is a qualified investor as defined in the Prospectus Directive;

Table of Contents

- (b) to fewer than 100 or, if the Relevant Member State has implemented the relevant provision of the 2010 PD Amending Directive, 150, natural or legal persons (other than qualified investors as defined in the Prospectus Directive), as permitted under the Prospectus Directive, subject to obtaining the prior consent of the Representatives for any such offer; or

- (c) in any other circumstances falling within Article 3(2) of the Prospectus Directive, provided that no such offer of notes shall require the Company or any underwriter to publish a prospectus pursuant to Article 3 of the Prospectus Directive. For the purposes of this provision, the expression an offer of notes to the public in relation to any notes in any Relevant Member State means the communication in any form and by any means of sufficient information on the terms of the offer and the notes to be offered so as to enable an investor to decide to purchase or subscribe for the notes, as the expression may be varied in that Member State by any measure implementing the Prospectus Directive in that Member State. The expression Prospectus Directive means Directive 2003/71/EC (and amendments thereto, including the 2010 PD Amending Directive, to the extent implemented in the Relevant Member State), and includes any relevant implementing measure in the Relevant Member State and the expression 2010 PD Amending Directive means Directive 2010/73/EU.

This prospectus supplement and accompanying prospectus have been prepared on the basis that any offer of notes in any Member State of the European Economic Area which has implemented the Prospectus Directive (each, a Relevant Member State) will be made pursuant to an exemption under the Prospectus Directive from the requirement to publish a prospectus for offers of notes. Accordingly any person making or intending to make an offer in that Relevant Member State of notes which are the subject of the placement contemplated in this prospectus supplement and the accompanying prospectus may only do so in circumstances in which no obligation arises for the Company or any of the underwriters to publish a prospectus pursuant to Article 3 of the Prospectus Directive, in each case, in relation to such offer. Neither the Company nor the underwriters have authorized, nor do they authorize, the making of any offer of notes in circumstances in which an obligation arises for the Company or the underwriters to publish a prospectus for such offer.

United Kingdom

This prospectus supplement and the accompanying prospectus are only being distributed to, and are only directed at, (1) persons who are outside the United Kingdom or (2) investment professionals falling within Article 19(5) of the Financial Services and Markets Act 2000 (Financial Promotion) Order 2005 (the Order) or (3) high net worth entities, and other persons to whom it may lawfully be communicated, falling within Article 49(2)(a) to (d) of the Order (each such person being referred to as a relevant person). The notes are only available to, and any invitation, offer or agreement to subscribe, purchase or otherwise acquire the notes will be engaged in only with, relevant persons. Any person who is not a relevant person should not act or rely on this prospectus supplement or the accompanying prospectus or any of their contents.

Each underwriter has represented and agreed that:

- (a) it has only communicated or caused to be communicated and will only communicate or cause to be communicated an invitation or inducement to engage in investment activity (within the meaning of Section 21 of the Financial Services and Markets Act 2000 (FSMA)) received by it in connection with the issue or sale of the notes in circumstances in which Section 21(1) of the FSMA does not apply to the Company; and
- (b) it has complied and will comply with all applicable provisions of the FSMA with respect to anything done by it in relation to the notes in, from or otherwise involving the United Kingdom.

Table of Contents

Notice to Prospective Investors in Hong Kong

The notes may not be offered or sold in Hong Kong by means of any document other than (i) in circumstances which do not constitute an offer to the public within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong), or (ii) to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder, or (iii) in other circumstances which do not result in the document being a prospectus within the meaning of the Companies Ordinance (Cap. 32, Laws of Hong Kong) and no advertisement, invitation or document relating to the notes may be issued or may be in the possession of any person for the purpose of issue (in each case whether in Hong Kong or elsewhere), which is directed at, or the contents of which are likely to be accessed or read by, the public in Hong Kong (except if permitted to do so under the laws of Hong Kong) other than with respect to notes which are or are intended to be disposed of only to persons outside Hong Kong or only to professional investors within the meaning of the Securities and Futures Ordinance (Cap. 571, Laws of Hong Kong) and any rules made thereunder.

Notice to Prospective Investors in Singapore

This prospectus supplement has not been registered as a prospectus with the Monetary Authority of Singapore. Accordingly, this prospectus supplement and any other document or material in connection with the offer or sale, or invitation for subscription or purchase, of the notes may not be circulated or distributed, nor may the notes be offered or sold, or be made the subject of an invitation for subscription or purchase, whether directly or indirectly, to persons in Singapore other than (i) to an institutional investor under Section 274 of the Securities and Futures Act, Chapter 289 of Singapore (the SFA), (ii) to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA or (iii) otherwise pursuant to and, in accordance with the conditions of, any other applicable provision of the SFA.

Where the notes are subscribed or purchased under Section 275 by a relevant person which is: (a) a corporation (which is not an accredited investor) the sole business of which is to hold investments and the entire share capital of which is owned by one or more individuals, each of whom is an accredited investor; or (b) a trust (where the trustee is not an accredited investor) whose sole purpose is to hold investments and each beneficiary is an accredited investor, shares, debentures and units of shares and debentures of that corporation or the beneficiaries' rights and interest in that trust shall not be transferable for six months after that corporation or that trust has acquired the notes under Section 275 except: (1) to an institutional investor under Section 274 of the SFA or to a relevant person, or any person pursuant to Section 275(1A), and in accordance with the conditions, specified in Section 275 of the SFA; (2) where no consideration is given for the transfer; or (3) by operation of law.

Table of Contents

WHERE YOU CAN FIND MORE INFORMATION

We file annual, quarterly and current reports, proxy statements and other information with the SEC, as required by the Exchange Act. You may read and copy any materials we file with the SEC at the SEC's Public Reference Room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the operation of the Public Reference Room. Our SEC filings also are available to the public at the SEC's website at <http://www.sec.gov> and from our website at <http://www.cytec.com>. Any information available on or accessible through our website or in the filing we make with the SEC, other than the documents specifically incorporated or deemed incorporated in this prospectus supplement, shall not form part of this prospectus supplement.

The SEC allows us to incorporate by reference the information we file with the SEC into this prospectus supplement. This allows us to disclose important information to you by referring you to those documents rather than repeating them in full herein. The information incorporated by reference is considered to be a part of this prospectus supplement and any information that we later file with the SEC automatically will update or supersede this information. We incorporate by reference into this prospectus supplement the following documents or information filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

our Annual Report on Form 10-K for the year ended December 31, 2013;

our Quarterly Reports on Form 10-Q for the quarters ended March 31, 2014, June 30, 2014 and September 30, 2014;

our Current Reports on Form 8-K filed on February 5, 2014, April 23, 2014 (Item 5.02(d) only), April 23, 2014 (Item 5.07), June 25, 2014, July 18, 2014 (Item 8.01 only), July 18, 2014 (Items 5.03 and 9.01), September 18, 2014 and October 27, 2014; and

all documents filed by the Company under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus supplement and before the termination of this offering.

You may request a copy of these filings, excluding exhibits, at no cost, by writing or telephoning us at the following address or phone number: Cytec Industries Inc., Attention: Investor Relations, 5 Garret Mountain Plaza, Woodland Park, NJ 07424, Telephone Number: (973) 357-3100.

VALIDITY OF THE NOTES

The validity of the notes will be passed upon for us by Sullivan & Cromwell LLP, New York, New York. The underwriters are being represented by Shearman & Sterling LLP, New York, New York.

Table of Contents

EXPERTS

The consolidated financial statements and financial statement schedule of the Company as of December 31, 2013 and 2012, and for each of the years in the three-year period ended December 31, 2013, and management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2013 (which is included in Management's Report on Internal Control Over Financial Reporting), have been incorporated in this prospectus supplement by reference to the Annual Report on Form 10-K for the year ended December 31, 2013 (filed with the SEC on February 21, 2014), in reliance upon the reports of KPMG LLP, an independent registered public accounting firm, which are incorporated herein by reference, upon the authority of said firm as experts in accounting and auditing. The audit report dated February 21, 2014 on the consolidated financial statements refers to a change in the method of accounting for pension and other postemployment benefit plans in 2013 and for computing depreciation in 2012.

S-27

Table of Contents

Cytec Industries Inc.

Debt Securities

Cytec Industries Inc. from time to time may offer to sell senior or subordinated debt securities at prices and on other terms to be determined at the time of the offering. The debt securities may be convertible into or exercisable or exchangeable for common or preferred stock or other securities of Cytec Industries Inc. or debt or equity securities of one or more other entities.

We may offer and sell these debt securities to or through one or more underwriters, dealers and agents, or directly to purchasers, on a continuous or delayed basis.

This prospectus describes some of the general terms that may apply to these debt securities. The specific terms of any debt securities to be offered will be described in a supplement to this prospectus or term sheet. The prospectus supplement or term sheet may also add, update or change information contained in this prospectus.

Investing in the debt securities involves risks. See Risk Factors on page 5 of this prospectus, the section entitled Risk Factors in Part I, Item 1A of our Annual Report on Form 10-K for the fiscal year ended December 31, 2012, and, if applicable, any risk factors described in any accompanying prospectus supplement or in our Securities and Exchange Commission filings that are incorporated by reference into this prospectus.

Neither the Securities and Exchange Commission nor any other regulatory body has approved or disapproved of these debt securities or passed upon the accuracy or adequacy of this prospectus. Any representation to the contrary is a criminal offense.

This prospectus and applicable prospectus supplement or term sheet may be used in the initial sale of the debt securities or in resales by selling debt securityholders. In addition, Cytec Industries Inc. may use this prospectus and the applicable prospectus supplement or term sheet in a remarketing or other resale transaction involving the debt securities after their initial sale. These transactions may be executed at negotiated prices that are related to market prices at the time of purchase or sale, or at other prices, as determined from time to time.

Prospectus dated February 26, 2013.

Table of Contents

TABLE OF CONTENTS

	Page
<u>About This Prospectus</u>	1
<u>Available Information</u>	1
<u>Incorporation of Certain Information by Reference</u>	1
<u>Comments on Forward-Looking Statements</u>	3
<u>Cytec Industries Inc.</u>	4
<u>Risk Factors</u>	5
<u>Use of Proceeds</u>	6
<u>Ratio of Earnings to Fixed Charges</u>	7
<u>Description of Debt Securities We May Offer</u>	8
<u>Legal Ownership and Book-Entry Issuance</u>	16
<u>Plan of Distribution</u>	21
<u>Validity of the Debt Securities</u>	23
<u>Experts</u>	24

Table of Contents

ABOUT THIS PROSPECTUS

This prospectus is part of a Registration Statement that we filed with the Securities and Exchange Commission (the SEC) utilizing a shelf registration process. Under this shelf process, we may offer from time to time any combination of the debt securities described in this prospectus in one or more offerings. This prospectus provides you with a general description of the debt securities we may offer. Each time we offer debt securities, we will provide a prospectus supplement or term sheet that will contain specific information about the terms of that offering, including amounts, prices and terms of the debt securities being offered. The prospectus supplement or term sheet may also add, update or change information contained in this prospectus. You should read both this prospectus and any prospectus supplement or term sheet together with additional information described immediately below under the heading Available Information and Incorporation of Certain Information by Reference.

Because we are a well-known seasoned issuer, as defined in Rule 405 of the Securities Act of 1933, as amended (the Securities Act), we may add to and offer additional securities, including those to be sold by security holders, by filing a prospectus supplement or term sheet with the SEC at the time of the offer.

Unless indicated otherwise, the terms Cytec, the Company, we, us, and our each refer collectively to Cytec Industries Inc.

AVAILABLE INFORMATION

We are required to file annual, quarterly and current reports, proxy statements and other information with the SEC. You may read and copy any documents filed by us at the SEC's public reference room at 100 F Street, N.E., Washington, D.C. 20549. Please call the SEC at 1-800-SEC-0330 for further information on the public reference room. Our filings with the SEC are also available to the public through the SEC's Internet site at <http://www.sec.gov> and from our website at <http://www.cytec.com>.

We have filed a registration statement on Form S-3 with the SEC relating to the debt securities covered by this prospectus. This prospectus is a part of the registration statement and does not contain all the information in the registration statement. Whenever a reference is made in this prospectus to a contract or other document of Cytec Industries Inc., the reference is only a summary and you should refer to the exhibits that are a part of the registration statement for a copy of the contract or other document. You may review a copy of the registration statement at the SEC's public reference room in Washington, D.C., as well as through the SEC's Internet site.

INCORPORATION OF CERTAIN INFORMATION BY REFERENCE

The SEC's rules allow us to incorporate by reference information into this prospectus. This means that we can disclose important information to you by referring you to another 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 debt 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.

We incorporate by reference into this prospectus the following documents or information filed with the SEC (other than, in each case, documents or information deemed to have been furnished and not filed in accordance with SEC rules):

- (1) our Annual Report on Form 10-K for the year ended December 31, 2012 (filed with the SEC on February 25, 2013);

Table of Contents

(2) our Definitive Proxy Statement on Schedule 14A for the Annual General Meeting of Shareholders on April 19, 2012, filed on March 8, 2012; and

(3) all documents filed by the Company under Sections 13(a), 13(c), 14 or 15(d) of the Exchange Act on or after the date of this prospectus and before the completion of the offering of all the debt securities covered by this prospectus.

We will provide without charge to each person, including any beneficial owner, to whom this prospectus is delivered, upon his or her written or oral request, a copy of any or all documents referred to above which have been or may be incorporated by reference into this prospectus excluding exhibits to those documents unless they are specifically incorporated by reference into those documents. You can request those documents from the Investor Relations Department, Cytec Industries Inc., Five Garret Mountain Plaza, Woodland Park, New Jersey 07424, Telephone Number: (973) 357-3100.

Table of Contents

COMMENTS ON FORWARD-LOOKING STATEMENTS

A number of the statements made by us in this prospectus, any prospectus supplement or in our documents incorporated by reference may be regarded as forward-looking statements within the meaning of the Private Securities Litigation Reform Act of 1995.

Forward-looking statements include, among others, statements concerning: our or any of our segments outlook for the future, anticipated results of acquisitions and divestitures, future aircraft build rates, expectations on the amount of our composite material content on new aerospace programs, selling price, raw material cost and working capital trends, anticipated changes in currency rates and their effects, economic forces within the industry we operate, anticipated costs, target completion and qualification dates and expenditures for capital projects, expected sales growth, operational excellence strategies and their results, expected annual tax rates, our long-term goals, environmental remediation costs, future legal settlements, claims and judgments, and other statements of expectations, beliefs, future plans and strategies, anticipated events or trends and similar expressions concerning matters that are not historical facts. Such statements are based upon our current beliefs and expectations and are subject to significant risks and uncertainties including those discussed in Item 1A, Risk Factors, in our Annual Report on Form 10-K for the year ended December 31, 2012. Actual results may vary materially from those set forth in the forward-looking statements.

The following factors, among others, could affect our anticipated results: our ability to successfully complete planned or ongoing restructuring and capital expansion projects, including realization of the anticipated results from such projects; our ability to successfully conclude changes to our business portfolio through acquisitions and divestitures, and achieve the expected benefits from such transactions; our ability to maintain or improve current ratings on our debt; our ability to obtain financing or borrow fully against committed lines, changes in financial conditions or the financial status of our existing lenders markets; changes in global and regional economies; the financial well-being of our customers and the end-consumers of products incorporating our products; changes in demand for our products or in the quality, costs and availability of our energy and raw materials, particularly when such raw materials are only available from a single or limited number of sources and cannot be substituted with other unqualified materials; customer inventory reductions; changes in the build rates for certain aircraft programs; the actions of competitors; currency and interest rate fluctuations; technological change, particularly in aerospace program technology; manufacturing capacity constraints; our ability to renegotiate expiring long-term contracts; our ability to raise our selling prices when our product costs increase; changes in employee relations, possible strikes or work stoppages at our facilities or at the facilities of our customers or suppliers; new laws and regulations or changes in their interpretation, including those related to taxation, global warming and those particular to the purchase, sale, storage and manufacture of chemicals or operation of chemical plants; governmental funding for those military programs that utilize our products; litigation, including its inherent uncertainty and changes in the number or severity of various types of claims brought against us and changes in the laws applicable to these claims; quality problems; difficulties in plant operations and materials transportation, including those caused by hurricanes or other natural forces; short or long-term climate changes; environmental matters; returns on employee benefit plan assets and changes in the discount rates used to estimate employee benefit liabilities; changes in the medical cost trend rate; changes in accounting principles or new accounting standards; political instability or adverse treatment of foreign operations in any of the significant countries in which we or our customers operate; war, terrorism or sabotage; epidemics; and other unforeseen circumstances.

Table of Contents

CYTEC INDUSTRIES INC.

We are a global specialty chemicals and materials company focused on developing, manufacturing and selling value-added products. Our products serve a diverse range of end markets including aerospace and industrial materials, mining and plastics. We use our technology and application development expertise to create chemical and material solutions that are formulated to perform specific and important functions for our customers.

Cytec was incorporated in Delaware as an independent public company in December 1993. Our principal executive offices are located at Five Garret Mountain Plaza, Woodland Park, New Jersey 07424.

Table of Contents

RISK FACTORS

Investment in any securities offered pursuant to this prospectus involves risks. You should carefully consider the risk factors incorporated by reference to our most recent Annual Report on Form 10-K and the other information contained in this prospectus, as updated by our subsequent filings under the Exchange Act and the risk factors and other information contained in the applicable prospectus supplement before acquiring any of such securities.

Table of Contents

USE OF PROCEEDS

Except as otherwise disclosed in the applicable prospectus supplement, we intend to use the net proceeds from the sale or resale of the debt securities referenced in this prospectus for general corporate purposes, which may include, among other things, working capital, capital expenditures, the repurchase of shares of common stock, the repayment of short-term borrowings or other debt or acquisitions.

Table of Contents**RATIO OF EARNINGS TO FIXED CHARGES**

The following table sets forth our consolidated ratios of earnings to fixed charges on an historical basis for the periods indicated:

	2008	2009	2010	2011	2012
Ratio of earnings to fixed charges (1)	3.9	0.9	2.6	3.4	3.5

N/M = Not meaningful.

- (1) Our ratio of earnings to fixed charges has been computed by dividing earnings from continuing operations before income taxes, equity in earnings of associated companies, minority interest and cumulative effect of accounting change plus fixed charges (less capitalized interest) and amortization of capitalized interest by fixed charges. Fixed charges consists of interest expense on debt (including amortization of discounts and/or premiums and deferred financing costs) and an estimate of the interest within rental expenses.

Table of Contents

DESCRIPTION OF DEBT SECURITIES WE MAY OFFER

Please note that in this section entitled Description of Debt Securities We May Offer, references to the Company, we, our and us refer only to Cytec Industries Inc. and not to its consolidated subsidiaries. Also, in this section, references to holders mean those who own debt securities registered in their own names, on the books that we or the trustee maintain for this purpose, and not those who own beneficial interests in debt securities registered in street name or in debt securities issued in book-entry form through one or more depositaries. Owners of beneficial interests in the debt securities should read the section below entitled Legal Ownership and Book-Entry Issuance.

We may offer senior or subordinated debt securities from time to time. The debt securities may be convertible into or exercisable or exchangeable for common or preferred stock or other securities of the Company or debt or equity securities of one or more other entities. When we use the term securities in this prospectus, we mean any of the debt securities we may offer with this prospectus, unless we say otherwise.

This prospectus, including the following description of the terms of the debt securities, sets forth general terms that may apply to the debt securities. The particular terms of the debt securities offered by any prospectus supplement and the extent, if any, to which such general provisions may apply to the debt securities so offered will be described in the prospectus supplement relating to such debt securities. Accordingly, for a description of the terms of a particular issue of debt securities, reference must be made to both the prospectus supplement relating thereto and to the following description.

The debt securities will be our general obligations. The debt securities will be issued under an indenture (the indenture), dated as of March 15, 1998, between us and PNC Bank, National Association, as trustee (the trustee), as supplemented from time to time. Subsequently, The Chase Manhattan Bank acquired substantially all of the assets of the corporate trust business of PNC Bank, National Association (including the duties and rights of PNC Bank, National Association, under the indenture) and later changed its name to JPMorgan Chase Bank, National Association. Thereafter, The Bank of New York assigned the assets and corporate trust business of JPMorgan Chase Bank, National Association and later changed its name to The Bank of New York Mellon; accordingly The Bank of New York Mellon is now the trustee under the indenture and is also the registrar and paying agent. Subject to certain limitations imposed by the Trust Indenture Act of 1939, as amended (the Trust Indenture Act), the trustee, under the indenture, in its individual or any other capacity, may become the owner or pledgee of our debt securities and may otherwise deal with and collect obligations owed to it by us and may otherwise deal with us with the same rights it would have if it were not the trustee.

The following is a summary of the most important provisions of the indenture. A copy of a form of the indenture has been filed as an exhibit to the registration statement of which this prospectus is a part. Section references below are to the applicable section in the indenture. The following discussion of certain provisions of the indenture is a summary only and does not purport to be a complete description of the terms and provisions of the indenture. We urge you to read the indenture because it, and not this description, defines your rights as a holder of the debt securities.

Ranking; Issuance In Series

Unless the applicable prospectus supplement specifies otherwise, the debt securities will rank equally and ratably with all of our other unsecured and unsubordinated obligations. The indenture does not limit the total amount of debt securities that we may issue under it, and we may issue debt securities under the indenture up to the aggregate principal amount authorized by our board of directors from time to time. Except as may be described in a prospectus supplement, neither the indenture nor the debt securities limit the amount of other secured or unsecured debt that we may incur or issue.

Table of Contents

We may issue debt securities in one or more separate series. The prospectus supplement relating to an offering of a particular series of debt securities will specify the particular amounts, prices and terms of those debt securities. These terms may include:

the title of the debt securities of the series;

any limit upon the aggregate principal amount of the debt securities of the series that may be authenticated and delivered under the indenture;

the date or dates on which the principal and any premium of the debt securities of the series is payable;

the rate or rates, which may be fixed or variable, at which the debt securities of the series bear interest, if any, or the method by which such rate or rates are determined, the date or dates from which such interest accrues, the interest payment dates on which any interest is payable or the method by which such dates will be determined, our right, if any, to defer or extend an interest payment date, and the record dates for the determination of holders to whom interest is payable and the basis upon which interest will be calculated if other than that of a 360-day year of twelve 30-day months;

the price or prices at which, the period or periods within which and the terms and conditions upon which the debt securities of the series may be redeemed, in whole or in part, at our option or otherwise;

our obligation, if any, to redeem, purchase or repay the debt securities of the series pursuant to any sinking fund or analogous provisions or at the option of a holder and the price or prices at which and the period or periods within which and the terms and conditions upon which the debt securities of the series will be redeemed, purchased or repaid, in whole or in part, pursuant to that obligation;

if other than in U.S. dollars, the currency, currencies, currency unit or currency units in which the principal of, and any premium and interest on, the debt securities of the series is payable, and the manner of determining an equivalent amount of U.S. dollars;

any additions, modifications or deletions in the events of default with respect to the debt securities of the series and any change in the right of the trustee or the holder of any debt securities of the series to declare the principal, any premium or any interest on such debt securities immediately due and payable;

any trustee, authenticating or paying agents, transfer agents or registrars or any other agents with respect to the debt securities of the series;

any terms of any guarantee of the payment of principal, any premium and any interest, with respect to the debt securities of the series and any corresponding changes to the provisions of the indenture as then in effect; and

any other terms of the debt securities of the series not inconsistent with the provisions of the indenture, including, without limitation, any securities of our or of another person into which the debt securities of the series are convertible for which the debt securities of the series are exercisable or exchangeable.

Tax Considerations

Edgar Filing: CYTEC INDUSTRIES INC/DE/ - Form 424B5

Important Federal income tax consequences and special considerations applicable to any series of debt securities may be described in the prospectus supplement.

Denominations, Registration, Payment and Transfer

In the absence of any other specification in the form of debt security for any series, the debt securities of each series shall be issuable in registered form without coupons in denominations of \$1,000 and any integral multiple of \$1,000.

Debt securities of any series may be exchanged for debt securities of the same series in other authorized denominations in an equal aggregate principal amount. Debt securities may also be presented for registration of

Table of Contents

transfer, and the transferee or transferees will receive new debt securities of the same series in authorized denominations in an equal aggregate principal amount. Debt securities to be exchanged or transferred must be presented at the office of the registrar or at the office of any transfer agent designated by us for that purpose with respect to any series of debt securities. Debt securities presented for exchange or registration of transfer must be duly endorsed by, or be accompanied by a written instrument or instruments of transfer in a form satisfactory to us and the trustee and duly executed by, the holder of these debt securities or his attorney who has been duly authorized in writing. We may require payment of a sum sufficient to cover any tax or other governmental charge that may be imposed in connection with any exchange or registration of transfer. We will not assess a service charge.

For a description of the registration and transfer of debt securities held in book-entry form, see [Legal Ownership and Book-Entry Issuance](#) below.

We will appoint the trustee as registrar and paying agent under the indenture. We may at any time designate additional transfer agents or paying agents with respect to any series of debt securities or from time to time change those designations or approve a change in their locations.

We are not required to exchange or register a transfer of (a) any debt securities of any series for a period of 15 days preceding the first mailing of notice of redemption for those series to be redeemed, or (b) any debt securities selected, called or being called for redemption except for the portion of any debt security to be redeemed in part, which is not redeemed.

The payment of principal of, and any premium and any interest on, debt securities will be made at the office of the trustee for those debt securities in the City of New York or at the office of a paying agent or paying agents that we may designate from time to time. At our option, however, we may pay any interest by check mailed to the address of the person entitled to it as that address appears in the register for those debt securities. The payment of any interest on debt securities will be made to the person in whose name that debt security is registered at the close of business on any record date for that interest, except in the case of defaulted interest.

Certain Definitions

Certain terms defined in Section 1.01 of the indenture are summarized below.

Attributable Debt in respect of a Sale/Leaseback Transaction means, as of the date of determination, the lesser of (i) the present value of the total obligations of the lessee for rental payments during the remaining term of the lease included in such Sale/Leaseback Transaction (including any period for which such lease has been extended) or (ii) the present value of the total obligations of the lessee for rental payments from the date of determination until the first possible termination date of the lease included in such Sale/Leaseback Transaction, plus the present value of any termination payment then due. For purposes of this definition, (x) the present value of the total obligations of the lessee for rental payments and for any termination payment shall be discounted at a rate of 100 basis points above the yield to maturity (as of the date of determination) on 10-year United States Treasury securities and (y) rental payments shall not include (A) amounts due for maintenance, repairs, utilities, insurance, taxes, assessments and similar charges or (B) contingent rent, such as that based on sales.

Consolidated Net Tangible Assets means total assets (net of applicable reserves) as determined in accordance with generally accepted accounting principles (GAAP) in the United States as in effect from time to time, less (i) total current liabilities, except for (A) notes and loans payable, (B) current maturities of Long-Term Debt and (C) current maturities of obligations under capital leases, and (ii) all goodwill, trade names, trademarks, patents, unamortized debt discount and expense and other like intangibles, all as reflected in our most recent consolidated balance sheet preceding the date of determination.

Debt means any notes, bonds, debentures or other similar evidences of indebtedness for money borrowed.

Table of Contents

Long-Term Debt means Debt that by its terms matures on a date more than 12 months after the date it was created or Debt that the obligor may extend or renew without the obligee's consent to a date more than 12 months after the date the Debt was created.

Principal Property means any manufacturing plant or facility (together with the land upon which it is erected and fixtures comprising a part thereof) located in the United States (excluding territories and possessions) now owned or hereafter acquired by us or any Restricted Subsidiary the net book value of which, as of the date of determination, exceeds 1.5% of Consolidated Net Tangible Assets, except any such plant or facility which is a pollution control or other facility financed by obligations issued by a state or local government unit and described in Section 141(a), 142(a)5, 142(a)6, 142(a)10 or 144(a) of the Internal Revenue Code of 1986, as amended, or any successor provision thereof, or which in the opinion of our board of directors is not of material importance to the total business conducted by us and our subsidiaries as a whole. The net book value of any manufacturing plant or facility shall mean the gross cost of the assets of such plant or facility less the accumulated depreciation with respect to such assets, calculated in accordance with GAAP and in the case of composite depreciation allocated in accordance with our accounting policies.

Restricted Subsidiary means (i) any Subsidiary which has substantially all of its assets located in the United States (excluding territories and possessions) and which owns a Principal Property and (ii) any Subsidiary which owns stock or indebtedness of a Restricted Subsidiary; *provided, however*, that the term **Restricted Subsidiary** shall not mean any Subsidiary (x) engaged primarily in financing receivables, making loans, extending credit or other activities of a character conducted by a finance company or (y) which conducts substantially all of its business outside the United States (excluding its territories or possessions) or the principal assets of which are stock or indebtedness of corporations which conduct substantially all of their business outside the United States (excluding territories and possessions).

Sale/Leaseback Transaction means an arrangement relating to property now owned or hereafter acquired whereby the Company or a Subsidiary transfers such property to a person and the Company or a Subsidiary leases it from such person.

Subsidiary means any corporation, association, partnership or other business entity of which more than 50% of the total voting power of shares of capital stock or other interests (including partnership interests) entitled (without regard to the occurrence of any contingency) to vote in the election of directors, managers, or trustees thereof is at the time owned or controlled, directly or indirectly, by (i) the Company, (ii) the Company and one or more Subsidiaries or (iii) one or more Subsidiaries.

U.S. Government Obligations means direct obligations (or certificates representing an ownership interest in such obligations) of the United States (including any agency or instrumentality thereof) for the payment of which the full faith and credit of the United States is pledged and which are not callable at the issuer's option.

Certain Covenants

Our principal covenants under the indenture relate to limitations on liens, restrictions on stock dispositions and maintenance of corporate existence. The following summarizes these covenants.

Limitation on Liens. The indenture provides that, so long as any debt securities issued under the indenture are outstanding, we shall not, and shall not permit any of our Restricted Subsidiaries to, incur, issue, assume or guarantee any Debt secured by a mortgage, pledge, security interest, conditional sale or other title retention agreement or other similar lien (**Liens**) on any Principal Property of the Company or of any Restricted Subsidiary, or on any shares of stock of any Restricted Subsidiary, without effectively providing that the debt securities, together with any other Debt of the Company or such Restricted Subsidiary then existing or thereafter created which is not subordinate to the debt securities, shall be secured equally and ratably with, or prior to, such

Table of Contents

secured Debt so long as such secured Debt is so secured. This restriction will not apply to Debt convertible into shares of capital stock of a Restricted Subsidiary (to the extent that such Debt is secured by such capital stock) or Debt secured by:

- (a) Liens on property or shares of stock of a business existing as of the date of the indenture;
- (b) Liens securing only the debt securities;
- (c) Liens on the property or stock of a person which are existing at the time (A) such property becomes a Principal Property or (B) such person becomes a Restricted Subsidiary, is merged into or consolidated with the Company or any Subsidiary, or another Subsidiary merges into or consolidates with such person (in a transaction in which such person becomes a Restricted Subsidiary) and which Liens were not incurred in anticipation of such transaction and were outstanding prior to such transaction;
- (d) Liens in favor of the Company or any Restricted Subsidiary;
- (e) Liens in favor of any government body to secure progress, advance or other payments under any contract or provision of any statute;
- (f) Liens on property or stock existing at the time of acquisition thereof (including acquisition through merger or consolidation);
- (g) Liens on property or stock to secure the payment of all or any part of the purchase price or construction cost of such property or stock, or to secure any Debt incurred prior to, at the time of or within 180 days after the acquisition of such property or shares of stock, the completion of any such construction or the commencement of full operation, for the purpose of financing all or any part of the purchase price or construction cost of such property or stock; *provided* that such Liens shall be limited to all or a part of such property or stock (plus improvements on property);
- (h) Any extension, renewal or replacement (or successive extensions, renewals or replacements) of any Lien referred to in clauses (a) through (g); *provided* that such extension, renewal or replacement Lien shall be limited to all or a part of the same property or stock that secured the Lien that was extended, renewed or replaced (plus improvements on such property); and
- (i) Liens securing Debt, the aggregate principal amount of which, when added to (A) the aggregate amount of all Attributable Debt of the Company and its Restricted Subsidiaries in respect of Sale/Leaseback Transactions existing at such time which would not otherwise be permitted under the covenant described under *Limitation on Sale/Leaseback Transactions* below but for the second paragraph thereof and (B) the aggregate outstanding principal amount of all other Debt of the Restricted Subsidiary which Debt would not otherwise be permitted under this covenant but for this clause (i), does not exceed 10% of Consolidated Net Tangible Assets. (Section 4.03)

Limitation on Sale and Leaseback Transactions. Neither we nor any Restricted Subsidiary will enter into any Sale/Leaseback Transaction with respect to any Principal Property unless:

- (a) the lease has a term of three years or less;
- (b) the lease is between the Company and a Restricted Subsidiary or between Restricted Subsidiaries;

- (c) the Company or a Restricted Subsidiary under any of clauses (a) through (h) under the heading "Limitation on Liens" could create a Lien on the property to secure Debt at least equal to the amount of Attributable Debt for the lease; or

- (d) within 180 days of the effective date of the lease, the Company or a Restricted Subsidiary retires Long-Term Debt of our company (other than debt that is subordinate to the debt securities) or a Restricted Subsidiary at least equal in amount to the Attributable Debt for the lease. (Section 4.04)

Table of Contents

Notwithstanding the previous paragraph, the Company or any Restricted Subsidiary may enter into any Sale/Leaseback Transaction (which would otherwise be subject to the foregoing restrictions) if the sum of the following amounts does not exceed 10% of Consolidated Net Tangible Assets:

the amount of the Attributable Debt of the Company and its Restricted Subsidiaries in respect of such Sale/Leaseback Transaction;

the aggregate outstanding principal amount of all Debt of the Company and its Restricted Subsidiaries which would not otherwise be permitted under the covenant under Limitation on Liens but for clause (i) of that section; and

the aggregate amount of all other Attributable Debt in respect of Sale/Leaseback Transactions existing at such time which would not otherwise be permitted under this covenant but for this paragraph.

Limitations on Consolidation, Merger, Sale or Conveyance. Under the indenture, so long as debt securities are outstanding, we will not consolidate with or merge with or into any other person or convey, transfer or lease all or substantially all of our assets with or to any person, unless:

the successor or purchaser is a corporation organized and existing under the laws of the United States, any State of the United States or the District of Columbia and expressly assumes through a supplemental indenture, delivered to the trustee, in a form that satisfies the trustee, all of our obligations under the indenture and the debt securities;

immediately after giving effect to that transaction, no event of default under the indenture, and no event which, after notice or lapse of time or both, would become an event of default under the indenture, has occurred and is continuing; and

we deliver to the trustee an officers certificate and an opinion of counsel that each states that such consolidation, merger or sale of assets and such supplemental indenture comply with the indenture. (Section 5.01)

Events of Default

Any one of the following events will constitute an event of default with regard to any series of debt securities under the indenture:

- (a) default continued for 30 days in payment of any installment of interest on any of the debt securities of that series when due and payable;
- (b) default in payment of all or any part of the principal on any of the debt securities of that series when due and payable either at maturity, upon any redemption, by declaration or otherwise;
- (c) default in the payment of any sinking fund installment as and when the same becomes due and payable by the terms of the debt securities of that series;
- (d) default in the performance, or breach, of any of our covenants or warranties in respect of the debt securities of that series and continuance of that default or breach for a period of 60 days after written notice as provided in the indenture;

Edgar Filing: CYTEC INDUSTRIES INC/DE/ - Form 424B5

(e) the voluntary or involuntary bankruptcy, insolvency, or reorganization under any applicable law of the Company or any Restricted Subsidiary; or

(f) the occurrence of any other event of default provided with respect to debt securities of such series. (Section 6.01)

However, a default under clause (d) will not constitute an event of default with respect to debt securities under such a series until the trustee or holders of at least 25% in principal amount of the outstanding debt securities of such series notify us of the default and we do not cure such default within the time specified after receipt of such notice. Any event of default with respect to one series of debt securities is not necessarily an event of default for another series.

Table of Contents

If an event of default (other than specified in clause (e)) with respect to debt securities of any series occurs and is continuing, the principal amount of, and all accrued and unpaid interest on, all outstanding debt securities of that particular series may be declared due and payable immediately by either the trustee or the holders of at least 25% in principal amount of all outstanding debt securities under the indenture. (Section 6.02) If an event of default specified in clause (e) with respect to debt securities of any series occurs and is continuing, the principal amount of, and all accrued and unpaid interest on, all debt securities of such series shall become immediately due and payable without any declaration or other act on the part of the trustee or any holder of debt securities of such series. (Section 6.02) If debt securities of any series are original issue discount debt securities, then only the amount of the principal of those debt securities then outstanding as may be specified in the terms of that series and any accrued interest on that specified principal amount may be accelerated.

The holders of a majority in the principal amount of debt securities may waive all defaults and annul and rescind a declaration of maturity of some or all of the debt securities if all payments other than the accelerated amounts have been made and all events of default have been cured, waived or otherwise remedied as provided in the indenture. Any such waiver, annulment and rescission must occur before a judgment or decree for amounts due has been obtained or entered. However, the consent of each debt security holder affected is required in order to waive a default in the payment of the principal of or interest on any debt securities or any covenant or provision of the indenture which specifically requires the consent of the holder of each debt security affected.

The indenture requires us to file with the trustee annually a written statement as to any defaults in the performance or fulfillment of any of our covenants, agreements or conditions contained in the indenture. (Section 4.07) The indenture provides that, if the trustee considers it in the interests of the holders of the debt securities of any series, the trustee may withhold notice to the holders of debt securities of that series of any default other than a default in the payment of principal of, or interest on, the debt securities of that series. (Section 7.05)

Except for the trustee's duty during an event of default to act with the required standard of care, the trustee is under no obligation to exercise any of the trusts or powers vested in it by the indenture at the request, order or direction of any of the holders of debt securities, unless those holders have offered the trustee reasonable indemnity. (Section 7.01) Subject to these provisions for indemnification, the holders of a majority in principal amount of the debt securities of each series affected, voting as a separate class, may 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. (Section 6.05)

No holder of debt securities of any series will have any right by virtue of the indenture to institute any legal action or proceeding with respect to the indenture, unless

that holder has previously given to the trustee written notice of a continuing default;

the holders of not less than 25% in principal amount of the debt securities of that series then outstanding have made written request on the trustee to institute such action or proceeding and have offered to the trustee any reasonable indemnity that the trustee may require relating to their request;

the trustee fails to institute the requested proceeding within 60 days; and

no direction inconsistent with such written request has been given to the trustee by the holders of a majority in principal amount of the debt securities of such series then outstanding. (Section 6.06)

These limitations do not apply to a suit for enforcement of payment of the principal of or interest on a debt security on or after the respective due dates. (Section 6.07)

Defeasance and Covenant Defeasance

The indenture contains a provision that, if made applicable to any series of debt securities, permits us to elect, subject to certain conditions, to be discharged from our obligations with respect to the debt securities of that series, subject to limited exceptions (legal defeasance) and/or to be released from our obligations with respect to any series of debt securities under the covenants in the indenture (covenant defeasance).

Table of Contents

To make either of these elections, we must irrevocably deposit in trust with the trustee money or U.S. Government Obligations or a combination of the two sufficient, without reinvestment, in the opinion of a nationally recognized firm of independent public accountants, to pay and discharge the principal of and interest on the outstanding debt securities of that series on the maturity of that principal or interest. We must also comply with certain other conditions set forth in the indenture, including delivering to the trustee a certificate stating that we have received from, or there has been published by, the Internal Revenue Service a ruling confirming that the defeasance will not cause the holders of the debt securities to recognize income gain or loss for Federal income tax purposes, and that as a result of the defeasance, the debt security holder 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 defeasance had not occurred. (Sections 8.01, 8.02)

Modification and Waiver

The indenture provides that we and the trustee may modify or amend the indenture with the consent of the holders of a majority in principal amount of the debt securities at the time outstanding of all series affected by the proposed additions or changes. However, the consent of the holder of each debt security is required, among other things, in order to:

reduce the amount of debt securities of such series whose holders must consent to an amendment or to a waiver of any default hereunder and its consequences as provided herein;

reduce the rate or extend the time for payment of interest on any debt security of such series;

reduce the principal of any debt security of such series or extend the stated maturity of any debt security of such series;

reduce the premium payable upon the redemption of any debt security of such series or change the time at which any debt security of such series may or shall be redeemed in accordance with the indenture;

impair the right to institute suit for the enforcement of any payment of principal of or any premium or interest on any debt security of such series after the stated maturity thereof (or, in the case of redemption, on or after the redemption date); or

make any debt security of such series payable in money other than that stated in such debt security. (Section 9.02)

In addition, without the consent of the holders of any of the debt securities issued under the indenture, we and the trustee may modify the indenture to, among other things, cure any ambiguity or to correct or supplement any defective or inconsistent provision or to make other provisions in regard to matters or questions arising under the indenture as we may deem necessary or desirable and which do not adversely affect the interests of the holders of the debt securities. (Section 9.01)

Table of Contents

LEGAL OWNERSHIP AND BOOK-ENTRY ISSUANCE

In this section, we describe special considerations that will apply to registered debt securities issued in global i.e., book-entry form. First we describe the difference between legal ownership and indirect ownership of registered debt securities. Then we describe special provisions that apply to global debt securities.

Who Is the Legal Owner of a Registered Debt Security?

Each debt security in registered form will be represented either by a certificate issued in definitive form to a particular investor or by one or more global securities representing the entire issuance of debt securities. We refer to those who have debt securities registered in their own names, on the books that we or the trustee or other agent maintain for this purpose, as the holders of those debt securities. These persons are the legal holders of the debt securities. We refer to those who, indirectly through others, own beneficial interests in debt securities that are not registered in their own names as indirect owners of those debt securities. As we discuss below, indirect owners are not legal holders, and investors in debt securities issued in book-entry form or in street name will be indirect owners.

Book-Entry Owners

We will issue each debt security in book-entry form only. This means debt securities will be represented by one or more global securities registered in the name of a financial institution that holds them as depositary on behalf of other financial institutions that participate in the depositary's book-entry system. These participating institutions, in turn, hold beneficial interests in the debt securities on behalf of themselves or their customers.

Under each indenture, only the person in whose name a debt security is registered is recognized as the holder of that debt security. Consequently, for debt securities issued in global form, we will recognize only the depositary as the holder of the debt securities and we will make all payments on the debt securities, including deliveries of any property other than cash, to the depositary. The depositary passes along the payments it receives to its participants, which in turn pass the payments along to their customers who are the beneficial owners. The depositary and its participants do so under agreements they have made with one another or with their customers; they are not obligated to do so under the terms of the debt securities.

As a result, investors will not own debt securities directly. Instead, they will own beneficial interests in a global security, through a bank, broker or other financial institution that participates in the depositary's book-entry system or holds an interest through a participant. As long as the debt securities are issued in global form, investors will be indirect owners, and not holders, of the debt securities.

Street Name Owners

In the future we may terminate a global security or issue debt securities initially in non-global form. In these cases, investors may choose to hold their debt securities in their own names or in street name. Debt securities held by an investor in street name would be registered in the name of a bank, broker or other financial institution that the investor chooses, and the investor would hold only a beneficial interest in those debt securities through an account he or she maintains at that institution.

For debt securities held in street name, we will recognize only the intermediary banks, brokers and other financial institutions in whose names the debt securities are registered as the holders of those debt securities and we will make all payments on those debt securities, including deliveries of any property other than cash, to them. These institutions pass along the payments they receive to their customers who are the beneficial owners, but only because they agree to do so in their customer agreements or because they are legally required to do so. Investors who hold debt securities in street name will be indirect owners, not holders, of those debt securities.

Table of Contents

Legal Holders

Our obligations as well as the obligations of the trustee under any indenture and any other third parties employed by us, the trustee or any of those agents, run only to the holders of the debt securities. We have no obligations to investors who hold beneficial interests in global securities, in street name or by any other indirect means. This will be the case whether an investor chooses to be an indirect owner of a debt security or has no choice because we are issuing the debt securities only in global form.

For example, once we make a payment or give a notice to the holder, we have no further responsibility for that payment or notice even if that holder is required, under agreements with depository participants or customers or by law, to pass it along to the indirect owners but does not do so. Similarly, if we want to obtain the approval of the holders for any purpose e.g., to amend the indenture for a series of debt securities or to relieve us of the consequences of a default or of our obligation to comply with a particular provision of an indenture we would seek the approval only from the holders, and not the indirect owners, of the relevant debt securities. Whether and how the holders contact the indirect owners is up to the holders.

When we refer to "you" in this prospectus, we mean those who invest in the debt securities being offered by this prospectus, whether they are the holders or only indirect owners of those debt securities. When we refer to "your debt securities" in this prospectus, we mean the debt securities in which you will hold a direct or indirect interest.

Special Considerations for Indirect Owners

If you hold debt securities through a bank, broker or other financial institution, either in book-entry form or in street name, you should check with your own institution to find out:

how it handles securities payments and notices;

whether it imposes fees or charges;

whether and how you can instruct it to exchange or convert a debt security for or into other property;

how it would handle a request for the holders' consent, if ever required;

whether and how you can instruct it to send you debt securities registered in your own name so you can be a holder, if that is permitted in the future;

how it would exercise rights under the debt securities if there were a default or other event triggering the need for holders to act to protect their interests; and

if the debt securities are in book-entry form, how the depository's rules and procedures will affect these matters.

What Is a Global Security?

We will issue each debt security in book-entry form only. Each debt security issued in book-entry form will be represented by a global security that we deposit with and register in the name of one or more financial institutions or clearing systems, or their nominees, which we select. A financial institution or clearing system that we select for any debt security for this purpose is called the "depository" for that debt security. A debt security will usually have only one depository but it may have more.

Each series of debt securities will have one or more of the following as the depositories:

The Depository Trust Company, New York, New York, which is known as DTC ;

a financial institution holding the debt securities on behalf of Euroclear Bank S.A./N.V., as operator of the Euroclear system, which is known as Euroclear ;

Table of Contents

a financial institution holding the debt securities on behalf of Clearstream Banking, société anonyme, Luxembourg, which is known as Clearstream ; and

any other clearing system or financial institution named in the applicable prospectus supplement.

The depositaries named above may also be participants in one another's systems. Thus, for example, if DTC is the depositary for a global security, investors may hold beneficial interests in that security through Euroclear or Clearstream, as DTC participants. The depositary or depositaries for your debt securities will be named in your prospectus supplement; if none is named, the depositary will be DTC.

A global security may represent one or any other number of individual debt securities. Generally, all debt securities represented by the same global security will have the same terms. We may, however, issue a global security that represents multiple debt securities of the same kind that have different terms and are issued at different times. We call this kind of global security a master global security. Your prospectus supplement will not indicate whether your debt securities are represented by a master global security.

A global security may not be transferred to or registered in the name of anyone other than the depositary or its nominee, unless special termination situations arise. We describe those situations below under **Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated** . As a result of these arrangements, the depositary, or its nominee, will be the sole registered owner and holder of all debt securities represented by a global security, and investors will be permitted to own only indirect interests in a global security. Indirect interests must be held by means of an account with a broker, bank or other financial institution that in turn has an account with the depositary or with another institution that does. Thus, an investor whose debt security is represented by a global security will not be a holder of the debt security, but only an indirect owner of an interest in the global security.

If the prospectus supplement for a particular debt security indicates that the debt security will be issued in global form only, then the debt security will be represented by a global security at all times unless and until the global security is terminated. We describe the situations in which this can occur below under **Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated** . If termination occurs, we may issue the debt securities through another book-entry clearing system or decide that the debt securities may no longer be held through any book-entry clearing system.

Special Considerations for Global Securities

As an indirect owner, an investor's rights relating to a global security will be governed by the account rules of the depositary and those of the investor's financial institution or other intermediary through which it holds its interest (e.g., Euroclear or Clearstream, if DTC is the depositary), as well as general laws relating to securities transfers. We do not recognize this type of investor or any intermediary as a holder of debt securities and instead deal only with the depositary that holds the global security.

If debt securities are issued only in the form of a global security, an investor should be aware of the following:

An investor cannot cause the debt securities to be registered in his or her own name, and cannot obtain non-global certificates for his or her interest in the debt securities, except in the special situations we describe below;

An investor will be an indirect holder and must look to his or her own bank or broker for payments on the debt securities and protection of his or her legal rights relating to the debt securities, as we describe above under **Who Is the Legal Owner of a Registered Debt Security?** ;

An investor may not be able to sell interests in the debt securities to some insurance companies and other institutions that are required by law to own their debt securities in non-book-entry form;

Table of Contents

An investor may not be able to pledge his or her interest in a global security in circumstances where certificates representing the debt securities must be delivered to the lender or other beneficiary of the pledge in order for the pledge to be effective;

The depositary's policies will govern payments, deliveries, transfers, exchanges, notices and other matters relating to an investor's interest in a global security, and those policies may change from time to time. We and the trustee will have no responsibility for any aspect of the depositary's policies, actions or records of ownership interests in a global security. We and the trustee also do not supervise the depositary in any way;

The depositary will require that those who purchase and sell interests in a global security within its book-entry system use immediately available funds and your broker or bank may require you to do so as well; and

Financial institutions that participate in the depositary's book-entry system and through which an investor holds its interest in the global securities, directly or indirectly, may also have their own policies affecting payments, deliveries, transfers, exchanges, notices and other matters relating to the debt securities, and those policies may change from time to time. For example, if you hold an interest in a global security through Euroclear or Clearstream, when DTC is the depositary, Euroclear or Clearstream, as applicable, will require those who purchase and sell interests in that security through them to use immediately available funds and comply with other policies and procedures, including deadlines for giving instructions as to transactions that are to be effected on a particular day. There may be more than one financial intermediary in the chain of ownership for an investor. We do not monitor and are not responsible for the policies or actions or records of ownership interests of any of those intermediaries.

Holder's Option to Obtain a Non-Global Security; Special Situations When a Global Security Will Be Terminated

If we issue any series of debt securities in book-entry form but we choose to give the beneficial owners of that series the right to obtain non-global securities, any beneficial owner entitled to obtain non-global securities may do so by following the applicable procedures of the depositary, any transfer agent or registrar for that series and that owner's bank, broker or other financial institution through which that owner holds its beneficial interest in the debt securities. For example, in the case of a global security representing preferred stock or depositary shares, a beneficial owner will be entitled to obtain a non-global security representing its interest by making a written request to the transfer agent or other agent designated by us. If you are entitled to request a non-global certificate and wish to do so, you will need to allow sufficient lead time to enable us or our agent to prepare the requested certificate.

In addition, in a few special situations described below, a global security will be terminated and interests in it will be exchanged for certificates in non-global form representing the debt securities it represented. After that exchange, the choice of whether to hold the debt securities directly or in street name will be up to the investor. Investors must consult their own banks or brokers to find out how to have their interests in a global security transferred on termination to their own names, so that they will be holders. We have described the rights of holders and street name investors above under "Who Is the Legal Owner of a Registered Debt Security?" .

The special situations for termination of a global security are as follows:

if the depositary notifies us that it is unwilling, unable or no longer qualified to continue as depositary for that global security and we do not appoint another institution to act as depositary within 60 days;

if we notify the trustee that we wish to terminate that global security; or

in the case of a global security representing debt securities issued under an indenture, if an event of default has occurred with regard to these debt securities and has not been cured or waived.

Table of Contents

If a global security is terminated, only the depository, and not we or the trustee for any debt securities is responsible for deciding the names of the institutions in whose names the debt securities represented by the global security will be registered and, therefore, who will be the holders of those debt securities.

Considerations Relating to Euroclear and Clearstream

Euroclear and Clearstream are securities clearance systems in Europe. Both systems clear and settle securities transactions between their participants through electronic, book-entry delivery of securities against payment.

Euroclear and Clearstream may be depositories for a global security. In addition, if DTC is the depository for a global security, Euroclear and Clearstream may hold interests in the global security as participants in DTC.

As long as any global security is held by Euroclear or Clearstream, as depository, you may hold an interest in the global security only through an organization that participates, directly or indirectly, in Euroclear or Clearstream. If Euroclear or Clearstream is the depository for a global security and there is no depository in the United States, you will not be able to hold interests in that global security through any securities clearance system in the United States.

Payments, deliveries, transfers, exchanges, notices and other matters relating to the debt securities made through Euroclear or Clearstream must comply with the rules and procedures of those systems. Those systems could change their rules and procedures at any time. We have no control over those systems or their participants, and we take no responsibility for their activities. Transactions between participants in Euroclear or Clearstream, on one hand, and participants in DTC, on the other hand, when DTC is the depository, would also be subject to DTC's rules and procedures.

Special Timing Considerations for Transactions in Euroclear and Clearstream

Investors will be able to make and receive through Euroclear and Clearstream payments, deliveries, transfers, exchanges, notices and other transactions involving any debt 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.

In addition, because of time-zone differences, U.S. investors who hold their interests in the debt securities through these systems and wish to transfer their interests, or to receive or make a payment or delivery or exercise any other right with respect to their interests, on a particular day may find that the transaction will not be effected until the next business day in Luxembourg or Brussels, as applicable. Thus, investors who wish to exercise rights that expire on a particular day may need to act before the expiration date. In addition, investors who hold their interests through both DTC and Euroclear or Clearstream may need to make special arrangements to finance any purchases or sales of their interests between the U.S. and European clearing systems, and those transactions may settle later than would be the case for transactions within one clearing system.

Table of Contents

PLAN OF DISTRIBUTION

We may sell the debt securities:

through underwriters or dealers, whether individually or through an underwriting syndicate led by one or more managing underwriters;

directly to one or more purchasers; or

through agents.

The distribution of the debt securities may be effected from time to time in one or more transactions:

at a fixed price, or prices which may be changed from time to time;

at market prices prevailing at the time of sale;

at prices related to those prevailing market prices; or

at negotiated prices.

The applicable prospectus supplement will include the names of underwriters, dealers or agents retained. The applicable prospectus supplement will also include the purchase price of the debt securities, our proceeds from the sale, any underwriting discounts or commissions and other items constituting underwriters' compensation, and any securities exchanges on which the debt securities are listed.

The underwriters will acquire the debt securities for their own account. They may resell the debt securities in one or more transactions, including negotiated transactions, at a fixed public offering price or at varying prices determined at the time of sale. The obligations of the underwriters to purchase the debt securities will be subject to some conditions. The underwriters will be obligated to purchase all the debt securities offered if any of the debt securities are purchased. Any initial public offering price and any discounts or concessions allowed or re-allowed or paid to dealers may be changed from time to time.

Until the distribution of the debt securities is completed, rules of the SEC may limit the ability of any underwriters and selling group members to bid for and purchase the debt securities. As an exception to these rules, underwriters are permitted to engage in some transactions that stabilize the price of the debt securities. Such transactions consist of bids or purchases for the purpose of pegging, fixing or maintaining the price of the debt securities, so long as stabilizing bids do not exceed a specified maximum.

The underwriters may create a short position in the debt securities of as much as 15-20% by selling more debt securities than are set forth on the cover page of the applicable prospectus supplement. A prospectus will be delivered to each purchaser of debt securities in these short sales, and we understand that each such purchaser will be entitled to the same remedies under the Securities Act, as if the purchaser purchased debt securities in this offering in a transaction that is not a short sale. If a short position is created in connection with the offering, the underwriters may engage in syndicate covering transactions by purchasing debt securities in the open market. The underwriters may also elect to reduce any short position by exercising all or part of the over-allotment option, if any.

The lead underwriters may also impose a penalty bid on other underwriters and selling group members participating in an offering. This means that if the lead underwriters purchase debt securities in the open market to reduce the underwriters' short position or to stabilize the price of the debt securities, they may reclaim the amount of any selling concession from the underwriters and selling group members who sold those debt securities as part of the offering.

Table of Contents

In general, purchases of a debt security for the purpose of stabilization or to reduce a short position could cause the price of the debt security to be higher than it might be in the absence of such purchases. The imposition of a penalty bid might also have an effect on the price of a debt security to the extent that it were to discourage resales of the debt security before the distribution is completed.

We do not make any representation or prediction as to the direction or magnitude of any effect that the transactions described above might have on the price of the debt securities. In addition, we do not make any representation that underwriters will engage in such transaction or that such transactions, once commenced, will not be discontinued without notice.

Underwriters, dealers and agents that participate in the distribution of the debt securities may be underwriters as defined in the Securities Act, and any discounts or commissions received by them from us and any profit on the resale of the debt securities by them may be treated as underwriting discounts and commissions under the Securities Act.

We may have agreements with the underwriters, dealers and agents to indemnify them against some civil liabilities, including liabilities under the Securities Act, or to contribute to payments which the underwriters, dealers or agents may be required to make.

Underwriters, dealers and agents may engage in transactions with, or perform services for, us or our subsidiaries in the ordinary course of their businesses.

We may authorize underwriters, dealers and agents to solicit offers by some specified institutions to purchase debt securities from us at the public offering price stated in the applicable prospectus supplement under delayed delivery contracts providing for payment and delivery on a specified date in the future.

These contracts will be subject only to those conditions included in the applicable prospectus supplement, and the applicable prospectus supplement will state the commission payable for solicitation of these contracts.

We may enter into derivative transactions with third parties, or sell debt securities not covered by this prospectus to third parties in privately negotiated transactions. If the applicable prospectus supplement indicates, in connection with those derivatives, the third parties may sell debt securities covered by this prospectus and the applicable prospectus supplement, including in short sale transactions. If so, the third parties may use debt securities pledged by us or borrowed from us or others to settle those sales or to close out any related open borrowings of stock, and may use debt securities received from us in settlement of those derivatives to close out any related open borrowings of stock. The third parties in such sale transactions will be underwriters as defined in the Securities Act and, if not identified in this prospectus, will be identified in the applicable prospectus supplement (or a post-effective amendment).

Any underwriters who purchase debt securities from us for public offering and sale may make a market in those debt securities, but these underwriters will not be obligated to do so and may discontinue any market making at any time without notice. We cannot assure you that there will be a trading market for any debt securities, and, if a trading market for any debt securities does develop, we cannot assure you that such market will be liquid.

Table of Contents

VALIDITY OF THE DEBT SECURITIES

In connection with particular offerings of the debt securities in the future, and if stated in the applicable prospectus supplements, the validity of those debt securities may be passed upon for the Company by Roy Smith, Esq., our Vice President, General Counsel and Secretary; and for any underwriters or agents by counsel named in the applicable prospectus supplement.

Table of Contents

EXPERTS

The consolidated financial statements and financial statement schedule of the Company as of December 31, 2012 and 2011, and for each of the years in the three-year period ended December 31, 2012, and management's assessment of the effectiveness of the Company's internal control over financial reporting as of December 31, 2012 (which is included in Management's Report on Internal Control Over Financial Reporting), have been incorporated in this prospectus and registration statement by reference to the Annual Report on Form 10-K for the year ended December 31, 2012 (filed with the SEC on February 25, 2013), in reliance upon the reports of KPMG LLP, an independent registered public accounting firm, which are incorporated herein by reference, upon the authority of said firm as experts in accounting and auditing. The audit report on the consolidated financial statements, dated February 25, 2013, refers to a change in the method of accounting for computing depreciation in 2012.

The audit report on the effectiveness of internal control over financial reporting as of December 31, 2012, dated February 25, 2013 contains an explanatory paragraph that states management excluded from its assessment of the effectiveness of Cytec Industries Inc.'s internal control over financial reporting as of December 31, 2012, Umeco plc's internal control over financial reporting associated with the total assets of \$560.6 million (of which \$363.7 million represented goodwill and intangible assets included within the scope of the assessment) and total net sales of \$150.0 million included in the consolidated financial statements of Cytec Industries Inc. as of and for the year ended December 31, 2012. The audit of internal control over financial reporting of Cytec Industries Inc. also excluded an evaluation of the internal control over financial reporting of Umeco plc.

Table of Contents

\$250,000,000

% Senior Notes due 2025

PROSPECTUS SUPPLEMENT

November , 2014

Joint Book-Running Managers

Citigroup

RBS

Wells Fargo Securities