

UNITED STATES
SECURITIES AND EXCHANGE COMMISSION
Washington, D.C. 20549

FORM 8-K/A
(Amendment No. 1)

CURRENT REPORT

Pursuant to Section 13 or 15(d) of the Securities Exchange Act of 1934

Date of Report (date of earliest event reported):
January 30, 2019 (November 15, 2018)

Cabot Microelectronics Corporation

(Exact name of registrant as specified in its charter)

Delaware	000-30205	36-4324765
(State or other jurisdiction of incorporation)	(Commission File Number)	(IRS Employer Identification No.)
870 North Commons Drive, Aurora, Illinois		60504
(Address of principal executive offices)		(Zip Code)
(630) 375-6631		
(Registrant's telephone number, including area code)		
Not applicable		
(Former name or former address, if changed since last report)		

Check the appropriate box below if the Form 8-K filing is intended to simultaneously satisfy the filing obligation of the registrant under any of the following provisions:

- Written communications pursuant to Rule 425 under the Securities Act (17 CFR 230.425)
- Soliciting material pursuant to Rule 14a-12 under the Exchange Act (17 CFR 240.14a-12)
- Pre-commencement communications pursuant to Rule 14d-2(b) under the Exchange Act (17 CFR 240.14d-2(b))
- Pre-commencement communications pursuant to Rule 13e-4(c) under the Exchange Act (17 CFR 240.13e-4(c))

Indicate by check mark whether the registrant is an emerging growth company as defined in Rule 405 of the Securities Act of 1933 (§230.405 of this chapter) or Rule 12b-2 of the Securities Exchange Act of 1934 (§240.12b-2 of this chapter). Emerging growth company

If an emerging growth company, indicate by check mark if the registrant has elected not to use the extended transition period for complying with any new or revised financial accounting standards provided pursuant to Section 13(a) of the Exchange Act.

Explanatory Note

Cabot Microelectronics Corporation (the “Company”, or “Cabot Microelectronics”) filed a Current Report on Form 8-K with the Securities and Exchange Commission (“SEC”) on November 15, 2018 (the “Original Filing”) to report the completion of its acquisition of KMG Chemicals, Inc., a Texas corporation (“KMG”). In the Original Filing, the Company stated that the required historical financial statements of KMG and pro forma financial information would be filed by amendment to the Original Filing within seventy-one (71) calendar days from the date that the Original Filing was required to be filed. This Current Report on Form 8-K/A is being filed to amend the Original Filing to provide the required historical financial statements of KMG and pro forma financial information described under Item 9.01 below. These financial statements and pro forma information are filed as Exhibits 99.1 and 99.2, respectively.

Item 9.01 Financial Statements and Exhibits.

(a) Financial Statements of Businesses Acquired.

The audited consolidated financial statements of KMG as of and for the year ended July 31, 2018, the notes related thereto, and the related independent auditors’ report of KPMG LLP are filed as Exhibit 99.1 to this report and incorporated in this Item 9.01 by reference.

The consent of KPMG, LLP, KMG’s independent auditors, is attached as Exhibit 23.1 to this Form 8-K/A.

(b) Pro forma financial information

The following unaudited pro forma condensed combined financial information is filed as Exhibit 99.2 to this Current Report on Form 8-K/A and incorporated by reference herein:

- Unaudited pro forma condensed combined statements of income for the year ended September 30, 2018 and
- Unaudited pro forma condensed combined balance sheet as of September 30, 2018.

(d) Exhibits

Exhibit Number	Description
23.1	Consent of KPMG, LLP, KMG’s independent auditors.
99.1	Audited consolidated financial statements of KMG as of and for the year ended July 31, 2018, the notes related thereto and the related independent auditors’ report of KPMG, LLP.
99.2	Unaudited pro forma condensed combined statements of income for the year ended September 30, 2018, unaudited pro forma condensed combined balance sheet as of September 30, 2018, and the notes related thereto.

SIGNATURE

Pursuant to the requirements of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned hereunto duly authorized.

CABOT MICROELECTRONICS CORPORATION
[Registrant]

Date: January 30, 2019

By: /s/ SCOTT D. BEAMER
Scott D. Beamer
Vice President and Chief Financial Officer
[Principal Financial Officer]

EXHIBIT INDEX

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Consent of Independent Registered Public Accounting Firm

The Board of Directors
Cabot Microelectronics Corporation

We consent to the incorporation by reference in the registration statements on Form S-8 (No. 333-34272, 333-34270, 333-82680, 333-123692, 333-170810, and 333-179955) and on Form S-4 (No. 333-227301) of Cabot Microelectronics Corporation of our report dated October 1, 2018, with respect to the consolidated balance sheets of KMG Chemicals, Inc. as of July 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended July 31, 2018, the related notes and the related financial statement schedule (collectively, the "consolidated financial statements"), and the effectiveness of internal control over financial reporting as of July 31, 2018, which is included in exhibit 23.1 to the Form 8-K/A of Cabot Microelectronics Corporation dated January 30, 2019.

/s/ KPMG LLP

Dallas, TX
January 30, 2019

KMG CHEMICALS, INC

Financial Statements

As of and for the year ended July 31, 2018

(With Independent Auditors' Report Thereon)

REPORT OF INDEPENDENT REGISTERED PUBLIC ACCOUNTING FIRM

To the Stockholders and Board of Directors
KMG Chemicals, Inc.:

Opinion on Internal Control Over Financial Reporting

We have audited KMG Chemicals, Inc. and subsidiaries' (the "Company") internal control over financial reporting as of July 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission. In our opinion, the Company maintained, in all material respects, effective internal control over financial reporting as of July 31, 2018, based on criteria established in *Internal Control – Integrated Framework (2013)* issued by the Committee of Sponsoring Organizations of the Treadway Commission.

We also have audited, in accordance with the standards of the Public Company Accounting Oversight Board (United States) (PCAOB), the consolidated balance sheets of the Company as of July 31, 2018 and 2017, the related consolidated statements of income, comprehensive income, stockholders' equity, and cash flows for each of the years in the three-year period ended July 31, 2018, the related notes, and financial statement schedule II, (collectively the consolidated financial statements), and our report dated October 1, 2018 expressed an unqualified opinion on those consolidated financial statements.

Basis for Opinion

The Company's management is responsible for maintaining effective internal control over financial reporting and for its assessment of the effectiveness of internal control over financial reporting, included in the accompanying Management's Report on Internal Control over Financial Reporting. Our responsibility is to express an opinion on the Company's internal control over financial reporting based on our audit. We are a public accounting firm registered with the PCAOB and are required to be independent with respect to the Company in accordance with the U.S. federal securities laws and the applicable rules and regulations of the Securities and Exchange Commission and the PCAOB.

We conducted our audit in accordance with the standards of the PCAOB. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether effective internal control over financial reporting was maintained in all material respects. Our audit of internal control over financial reporting included obtaining an understanding of internal control over financial reporting, assessing the risk that a material weakness exists, and testing and evaluating the design and operating effectiveness of internal control based on the assessed risk. Our audit also included performing such other procedures as we considered necessary in the circumstances. We believe that our audit provides a reasonable basis for our opinion.

Definition and Limitations of Internal Control Over Financial Reporting

A company's internal control over financial reporting is a process designed to provide reasonable assurance regarding the reliability of financial reporting and the preparation of financial statements for external purposes in accordance with generally accepted accounting principles. A company's internal control over financial reporting includes those policies and procedures that (1) pertain to the maintenance of records that, in reasonable detail, accurately and fairly reflect the transactions and dispositions of the assets of the company; (2) provide reasonable assurance that transactions are recorded as necessary to permit preparation of financial statements in accordance with generally accepted accounting principles, and that receipts and expenditures of the company are being made only in accordance with authorizations of management and directors of the company; and (3) provide reasonable assurance regarding prevention or timely detection of unauthorized acquisition, use, or disposition of the company's assets that could have a material effect on the financial statements. Because of its inherent limitations, internal control over financial reporting may not prevent or detect misstatements. Also, projections of any evaluation of effectiveness to future periods are subject to the risk that controls may become inadequate because of changes in conditions, or that the degree of compliance with the policies or procedures may deteriorate.

/s/ KPMG LLP
Dallas, Texas
October 1, 2018

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED BALANCE SHEETS
AS OF JULY 31, 2018 AND 2017
(In thousands, except for share and per share amounts)

	2018	2017
Assets		
Current assets		
Cash and cash equivalents	\$ 24,436	\$ 20,708
Accounts receivable		
Trade, net of allowances of \$219 at July 31, 2018 and \$263 at July 31, 2017	61,895	51,168
Other	9,943	6,168
Inventories, net	54,218	46,482
Prepaid expenses and other	4,807	8,617
Total current assets	155,299	133,143
Property, plant and equipment, net	117,101	105,435
Goodwill	233,204	224,391
Intangible assets, net	300,457	320,401
Other assets, net	12,373	9,061
Total assets	\$ 818,434	\$ 792,431
Liabilities & stockholders' equity		
Current liabilities		
Accounts payable	\$ 39,005	\$ 29,570
Accrued liabilities	12,524	12,456
Employee incentive accrual	7,726	7,713
Current portion of long-term debt	—	3,167
Total current liabilities	59,255	52,906
Long-term debt, net	306,119	523,102
Deferred tax liabilities	32,129	37,944
Other long-term liabilities	4,864	4,763
Total liabilities	402,367	618,715
Commitments and contingencies		
Stockholders' equity		
Preferred stock, \$.01 par value, 10,000,000 shares authorized, none issued	—	—
Common stock, \$.01 par value, 40,000,000 shares authorized, 15,509,733 shares issued and outstanding at July 31, 2018 and 11,889,649 shares issued and outstanding at July 31, 2017	155	119
Additional paid-in capital	222,371	42,535
Accumulated other comprehensive loss	(10,321)	(9,712)
Retained earnings	203,862	140,774
Total stockholders' equity	416,067	173,716
Total liabilities and stockholders' equity	\$ 818,434	\$ 792,431

See accompanying notes to consolidated financial statements.

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF INCOME
FOR THE YEARS ENDED JULY 31, 2018, 2017 AND 2016
(In thousands, except per share amounts)

	2018	2017	2016
Net sales	\$ 465,556	\$ 333,442	\$ 297,978
Cost of sales	267,895	203,304	182,470
Gross profit	<u>197,661</u>	<u>130,138</u>	<u>115,508</u>
Distribution expenses	36,439	38,318	36,986
Selling, general and administrative expenses	57,900	50,188	47,233
Amortization of intangible assets	15,123	4,279	1,959
Restructuring charges	74	20	1,629
Realignment charges	—	—	130
Operating income	<u>88,125</u>	<u>37,333</u>	<u>27,571</u>
Other income/(expense)			
Interest expense, net	(21,529)	(4,817)	(799)
Loss on the extinguishment of debt	(6,710)	(353)	—
Derivative fair value gain	5,576	—	—
Gain on purchase of NFC	—	—	1,826
Gain on sale of creosote distribution business, net	—	—	—
Other, net	(1,063)	279	(368)
Total other income/(expense), net	<u>(23,726)</u>	<u>(4,891)</u>	<u>659</u>
Income before income taxes	64,399	32,442	28,230
Provision for income taxes	442	(8,809)	(9,555)
Net income	<u>\$ 64,841</u>	<u>\$ 23,633</u>	<u>\$ 18,675</u>
Earnings per share			
Basic	\$ 4.41	\$ 1.99	\$ 1.59
Diluted	\$ 4.29	\$ 1.92	\$ 1.57
Weighted average shares outstanding			
Basic	14,708	11,885	11,719
Diluted	15,111	12,286	11,926

See accompanying notes to consolidated financial statements.

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF COMPREHENSIVE INCOME
FOR THE YEARS ENDED JULY 31, 2018, 2017 AND 2016
(In thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Net income	\$ 64,841	\$ 23,633	\$ 18,675
Other comprehensive (loss)/income			
Foreign currency translation (loss)/gain	(692)	2,544	(2,620)
Pension and other post-retirement benefit liability adjustments	83	(209)	240
Total other comprehensive (loss)/income	<u>(609)</u>	<u>2,335</u>	<u>(2,380)</u>
Total comprehensive income	<u>\$ 64,232</u>	<u>\$ 25,968</u>	<u>\$ 16,295</u>

See accompanying notes to consolidated financial statements.

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY
FOR THE YEARS ENDED JULY 31, 2018, 2017 AND 2016
(In thousands)

	<u>Common Stock</u>		<u>Additional Paid- In Capital</u>	<u>Accumulated Other Comprehensive Income (Loss)</u>	<u>Retained Earnings</u>	<u>Total Stockholders' Equity</u>
	<u>Shares Issued</u>	<u>Par Value</u>				
BALANCE AT JULY 31, 2015	11,690	\$ 117	\$ 31,676	\$ (9,667)	\$ 101,295	\$ 123,421
Cash dividends (\$0.12 per share)					(1,406)	(1,406)
Restricted stock issued	187	2	(2)			—
Stock-based compensation expense			4,836			4,836
Tax benefit from stock-based awards			43			43
Net income					18,675	18,675
Loss on foreign currency translation				(2,620)		(2,620)
Pension liability adjustment				240		240
BALANCE AT JULY 31, 2016	11,877	\$ 119	\$ 36,553	\$ (12,047)	\$ 118,564	\$ 143,189
Cash dividends (\$0.12 per share)					(1,423)	(1,423)
Restricted stock issued	12		(277)			(277)
Stock-based compensation expense			6,259			6,259
Tax benefit from stock-based awards						—
Net income					23,633	23,633
Gain on foreign currency translation				2,544		2,544
Pension liability adjustment				(209)		(209)
BALANCE AT JULY 31, 2017	11,889	119	42,535	(9,712)	140,774	173,716
Cash dividends (\$0.12 per share)					(1,753)	(1,753)
Restricted stock issued	170	1	(3,730)			(3,729)
Issuance of common stock	3,450	35	175,602			175,637
Stock-based compensation expense			7,964			7,964
Net income					64,841	64,841
Loss on foreign currency translation				(692)		(692)
Pension liability adjustment				83		83
BALANCE AT JULY 31, 2018	15,509	155	222,371	(10,321)	203,862	416,067

See accompanying notes to consolidated financial statements.

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JULY 31, 2018, 2017 AND 2016
(In thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Cash flows from operating activities			
Net income	\$ 64,841	\$ 23,633	\$ 18,675
Adjustments to reconcile net income to net cash provided by operating activities			
Depreciation and amortization	29,948	16,964	14,534
Loss on extinguishment of debt	6,710	353	—
Amortization of debt discounts and financing costs included in interest expense	1,421	401	167
Stock-based compensation expense	7,964	6,259	4,836
Deferred income tax (benefit)/expense	(5,517)	(1,090)	258
Other	371	(1,028)	211
Derivative fair value gain	(5,576)	—	—
Debt repricing transaction costs	607	—	—
Depreciation related to restructuring and realignment	—	—	295
Gain on NFC acquisition	—	—	(1,826)
Changes in operating assets and liabilities, net of effects of acquisition			
Accounts receivable — trade	(11,039)	(3,146)	5,154
Accounts receivable — other	(2,221)	254	(1,889)
Inventories	(8,206)	2,870	4,348
Other current and non-current assets	(566)	(1,500)	1,221
Accounts payable	9,904	(1,096)	(9,226)
Accrued liabilities and other	(666)	2,049	4,276
Net cash provided by operating activities	<u>87,975</u>	<u>44,923</u>	<u>41,034</u>
Cash flows from investing activities			
Additions to property, plant and equipment	(23,654)	(13,074)	(14,358)
Purchase of NFC, net of cash acquired	—	—	(2,679)
Purchase of Sealweld, net of cash acquired	(585)	(16,599)	—
Purchase of Flowchem, net of cash acquired	—	(495,000)	—
Other investing activities	(988)	(753)	—
Proceeds from insurance claim	50	1,251	—
Net cash used in investing activities	<u>(25,177)</u>	<u>(524,175)</u>	<u>(17,037)</u>
Cash flows from financing activities			
Proceeds from sale of common stock, net of issuance costs	175,637	—	—
Principal payments on borrowings on term loan	(228,000)	(10,000)	—
Debt repricing transaction costs	(607)	—	—
Proceeds from term loan	—	550,000	—
Borrowings under credit facility	—	17,000	2,800
Deferred financing costs	—	(15,323)	—
Net payments under credit facility	—	(52,800)	(20,000)
Cash payments related to tax withholdings from stock-based awards	(3,729)	(277)	—
Payment of dividends	(1,753)	(1,423)	(1,406)
Other financing activities	32	—	43
Net cash (used in)/provided by financing activities	<u>(58,420)</u>	<u>487,177</u>	<u>(18,563)</u>
Effect of exchange rate changes on cash	<u>(650)</u>	<u>(645)</u>	<u>(523)</u>
Net increase in cash and cash equivalents	3,728	7,280	4,911
Cash, cash equivalents and restricted cash at the beginning of year	<u>20,708</u>	<u>13,428</u>	<u>8,517</u>
Cash, cash equivalents and restricted cash at end of year	<u>\$ 24,436</u>	<u>\$ 20,708</u>	<u>\$ 13,428</u>

See accompanying notes to consolidated financial statements.

KMG CHEMICALS, INC. AND SUBSIDIARIES
CONSOLIDATED STATEMENTS OF CASH FLOWS
FOR THE YEARS ENDED JULY 31, 2018, 2017 AND 2016
(In thousands)

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Supplemental disclosures of cash flow information			
Cash paid for interest	\$ 19,550	\$ 4,309	\$ 621
Cash paid for income taxes	\$ 5,292	\$ 9,937	\$ 9,744
Supplemental disclosure of non-cash investing activities			
Purchase of property, plant and equipment through accounts payable	\$ 958	\$ 1,385	\$ 373
Accrued liabilities under industrial lubricants business acquisition	\$ —	\$ 175	\$ —
See accompanying notes to consolidated financial statements.			

NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

1. SUMMARY OF SIGNIFICANT ACCOUNTING POLICIES

General — KMG Chemicals, Inc. (the “Company”) is involved principally in the manufacture, formulation and distribution of specialty chemicals and performance materials for the semiconductor, industrial wood preservation and pipeline and energy markets.

In its electronic chemicals business, the Company sells high purity process chemicals primarily to the semiconductor industry. The Company operates its electronic chemicals business through KMG Electronic Chemicals, Inc. in North America and through KMG Italia, S.r.l. and KMG Electronic Chemicals Holdings S.a.r.l. (and its subsidiaries) in Europe and Asia and has facilities in the United States, the United Kingdom, France, Italy and Singapore. In its pipeline performance business, the Company sells products and services to the pipeline and energy services market that are used to optimize pipeline throughput and maximize performance and safety. The Company operates its pipeline performance business through KMG Val-Tex, LLC (“Val-Tex”), Sealweld (USA), Inc., KMG Industrial Lubricants Canada, Inc., and Flowchem LLC (and its subsidiaries), and has four facilities in the United States and one facility in Canada. In the wood treating business, the Company manufactures penta at its plant in Matamoros, Mexico through KMG de Mexico (“KMEX”), a Mexican corporation which is a wholly-owned subsidiary of KMG Bemuth. The Company sells its wood treating chemicals in the United States, Mexico and Canada. The Company has two reportable segments, electronic chemicals and performance materials. The performance materials segment includes the Company’s pipeline performance business and its wood treating chemicals business. See Note 15.

On August 14, 2018, the Company entered into an Agreement and Plan of Merger (“Merger Agreement”) with Cabot Microelectronics Corporation, a Delaware corporation (“Cabot Microelectronics”), and Cobalt Merger Sub Corporation, a Texas corporation and wholly owned subsidiary of Cabot Microelectronics (“Merger Sub”), providing for the acquisition of the Company by Cabot Microelectronics. The Merger Agreement provides that, upon the terms and subject to the satisfaction or valid waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into the Company (the “Merger”), with the Company continuing as the surviving corporation and a wholly owned subsidiary of Cabot Microelectronics.

Principles of Consolidation — The consolidated financial statements include the accounts of KMG Chemicals, Inc. and its subsidiaries. All significant intercompany accounts and transactions have been eliminated in consolidation.

Use of Estimates — The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America (“GAAP”) requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the reporting period. Actual results could differ from these estimates.

Reclassifications — Certain reclassifications of prior year amounts have been made to conform to current year presentation. These reclassifications had no impact on net income (loss) or total stockholders’ equity as previously reported.

Cash and Cash Equivalents — The Company considers all investments with original maturities of three months or less when purchased to be cash equivalents.

Restricted Cash — Restricted cash includes cash balances which are legally or contractually restricted to use. The Company’s restricted cash as of July 31, 2016 included proceeds that were placed in escrow in connection with the sale of the animal health business. See Note 3.

Fair Value of Financial Instruments — The carrying value of financial instruments, including cash and cash equivalents, accounts receivable, and accounts payable approximate fair value because of the relatively short maturity of these instruments. The fair value of the Company’s debt at July 31, 2018 and 2017 approximated its carrying value since the debt obligations bear interest at a rate consistent with market rates.

Accounts Receivable — The Company’s trade accounts receivables are primarily from sales of products worldwide. The Company extends credit based on an evaluation of the customer’s financial condition, generally without requiring collateral. Exposure to losses on receivables is dependent on each customer’s financial condition.

The Company records an allowance for doubtful accounts to reduce accounts receivable when the Company believes an account may not be collected. A provision for bad debt expense is recorded to selling, general and administrative expenses. The amount of bad debt expense recorded each period and the resulting adequacy of the allowance at the end of each period are determined using a customer-by-customer analyses of accounts receivable balances each period and the Company’s assessment of future bad debt exposure. Historically, write offs of accounts receivable balances have been insignificant. The allowance was \$0.2 million and \$0.3 million at July 31, 2018 and 2017, respectively.

Inventories — Inventories are valued at the lower of cost or net realizable value. For certain products, cost is generally determined using the first-in, first-out (“FIFO”) method. For certain other products the Company utilizes a weighted-average cost. The Company records a reserve for inventory obsolescence as a reduction in its inventory when considered not salable.

Property, Plant, and Equipment — Property, plant, and equipment are stated at cost less accumulated depreciation and amortization. Major renewals and betterments are capitalized. Repairs and maintenance costs are expensed as incurred.

Depreciation for equipment commences once placed in service, and depreciation for buildings and leasehold improvements commences once they are ready for their intended use. Depreciable life is determined through economic analysis. Depreciation for financial statement purposes is provided on the straight-line method.

The estimated useful lives of classes of assets are as follows:

Asset Class	Life (Years)
Building	15 to 30
Plant	10 to 18
Equipment	3 to 15
Leasehold improvements	Remaining life of the lease

Depreciation expense was approximately \$14.8 million, \$12.7 million and \$12.9 million in fiscal years 2018, 2017 and 2016, respectively (including accelerated depreciation of \$0.3 million in fiscal year 2016). See Notes 5 and 16.

Intangible Assets — Identifiable intangible assets with a defined life are amortized using a straight-line method over the useful lives of the assets. Identifiable intangible assets of an indefinite life are not amortized. These assets are required to be tested for impairment at least annually. If this review indicates that impairment has occurred, the carrying value of the intangible assets will be adjusted to fair value. Based on an assessment of qualitative factors, in accordance with GAAP, it was determined that there were no events or circumstances that would lead the Company to a determination that is more likely than not that the fair value of the applicable assets was less than its carrying value as of July 31, 2018 and 2017. The Company therefore concluded that its indefinite lived intangible assets were not impaired as of July 31, 2018 and 2017.

Goodwill — Goodwill represents the excess of the purchase price paid for acquired businesses over the allocated fair value of the related net assets after impairments, if applicable.

The Company evaluates goodwill for impairment annually, and when an event occurs or circumstances change to suggest that the carrying amount may not be recoverable. The Company has goodwill of \$225.3 million and \$7.9 million associated with its performance materials and electronic chemicals segments, respectively, as of July 31, 2018. As part of the goodwill impairment analysis, current accounting standards give companies the option to first perform a qualitative assessment to determine whether it is more likely than not that the fair value of a reporting unit is less than its carrying amount, including goodwill. If it is determined that it is more likely than not that the fair value of a reporting unit is greater than its carrying amount, then performing the currently prescribed two-step impairment test is unnecessary. In developing a qualitative assessment to meet the “more-likely-than-not” threshold, each reporting unit with goodwill on its balance sheet is assessed separately, and different relevant events and circumstances are evaluated for each unit. If it is determined that it is more likely than not that the fair value of a reporting unit is less than its carrying amount, then the prescribed two-step impairment test is performed. Current accounting standards also give us the option to bypass the qualitative assessment for any reporting unit in any period, and proceed directly to performing the first step of the two-step goodwill impairment test. The Company conducts its annual impairment test as of July 31 of each year. In 2018, 2017 and 2016, the Company performed a qualitative assessment that indicated the fair value of each of its reporting units is greater than its carrying amount. In conjunction with the sale of the creosote business on January 16, 2015, the Company allocated goodwill of approximately \$0.7 million that was previously a part of the wood treating chemicals reporting unit to the assets disposed of in the sale.

Asset retirement obligation — The Company measures asset retirement obligations based upon the applicable accounting guidance, using certain assumptions including estimates for decommissioning, dismantling and disposal costs. In the event that operational or regulatory issues vary from management’s estimates, the Company could incur additional significant charges to income and increases in cash expenditures related to those costs. Certain conditional asset retirement obligations related to facilities have not been recorded in the consolidated financial statements due to uncertainties surrounding the ultimate settlement date and estimate of fair value related to a legal obligation to perform an asset retirement activity. When a reasonable estimate of the ultimate settlement can be made, an asset retirement obligation is recorded and such amounts may be material to the consolidated financial statements in the period in which they are recorded. In conjunction with its decision to exit the Bay Point facility, in fiscal year 2014 the Company recognized \$3.7 million in asset retirement obligations related to the decommissioning, decontamination, and dismantling costs for which it is obligated under its manufacturing agreement. See Note 16.

Impairment of Long-Lived Assets — Long-lived assets, including property, plant and equipment, are reviewed for impairment whenever events or changes in circumstances indicate that the carrying amount of such assets may not be recoverable. The determination of recoverability is based on an estimate of undiscounted future cash flows resulting from the use of the asset and its disposition. The measurement of an impairment loss for long-lived assets, where management expects to hold and use the asset, are based on the asset's estimated fair value. Long-lived assets to be disposed of are reported at the lower of carrying amount or fair value. There were no impairment charges in fiscal years 2018, 2017 or 2016. See Notes 5 and 7.

Revenue Recognition — The Company's chemical products are sold in the open market and revenue is recognized when risk of loss and title to the products transfers to customers, the price to the buyer is fixed or determinable and recoverability is reasonably assured. For consignment sales, the revenues are recognized when the customer uses the product for their intended use. The Company also recognizes service revenue in connection with technical support services and chemicals delivery and handling at customer facilities. Revenue is recognized as those services are provided. To the extent that customers are eligible for rebates, they are estimated and recognized as the sales are made.

Cost of Sales — Cost of sales includes inbound freight charges, purchasing and receiving costs, inspection costs and internal transfer costs. In the case of products manufactured by the Company, direct and indirect manufacturing costs, such as depreciation and property, plant and equipment, and associated plant administrative expenses are included as well as laid-in cost of raw materials consumed in the manufacturing process.

Distribution Expenses — These expenses include outbound freight, storage and handling expenses and other miscellaneous costs (including depreciation and amortization) associated with product storage, handling and distribution.

Selling, General and Administrative Expenses — These expenses include selling expenses, corporate headquarters' expenses, depreciation, amortization of intangible assets and environmental regulatory support expenses.

Shipping and Handling Costs — Shipping and handling costs are included in cost of sales and distribution expenses. Inbound freight charges and internal transfer costs are included in cost of sales. Product storage and handling costs and the cost of distributing products to the Company's customers are included in distribution expenses.

Income Taxes — The Company follows the asset and liability method of accounting for income taxes in accordance with current accounting standards. Under this method, deferred income taxes are recorded based upon the differences between the financial reporting and tax bases of assets and liabilities and are measured using the enacted tax rates and laws in effect at the time the underlying assets or liabilities are recovered or settled.

When the Company's earnings from foreign subsidiaries are considered to be indefinitely reinvested, no provision for United States income taxes is made for these undistributed earnings. If any of the subsidiaries have a distribution of earnings in the form of dividends or otherwise, the Company would be subject to both United States income taxes (subject to an adjustment for foreign tax credits) and withholding taxes payable to the various foreign countries.

The Company records a valuation allowance in the reporting period when management believes that it is more likely than not that any deferred tax asset created will not be realized. Management will continue to evaluate the appropriateness of the valuation allowance in the future based upon the operating results of the Company.

The calculation of the Company's tax assets and liabilities involves assessing the uncertainties regarding the application of complex tax regulations. The Company recognizes liabilities for tax expenses based on its estimate of whether, and the extent to which, additional taxes will be due. If the Company determines that payment of these amounts is unnecessary, the Company reverses the liability and recognizes a tax benefit during the period in which it determines that the liability is no longer necessary. The Company records an additional charge in its provision for taxes when the determination is made. See Note 6.

Earnings Per Share — Basic earnings per common share amounts are calculated using the weighted average number of common shares outstanding during each period. Diluted earnings per share assumes the issuance of restricted stock under time-based and performance-based awards, and the exercise of stock options having exercise prices less than the average market price during the applicable period, using the treasury stock method. Time-based and performance-based awards have no liquidation or dividend rights and are thus are not considered participating securities.

Foreign Currency Translation — The functional currency of the Company's operations in Mexico is the U.S. Dollar. As a result, certain income statement items, such as sales or expenses denominated in pesos are re-measured at the average monthly exchange rate for the dates those items were recognized. Foreign currency transaction gains and losses are included in the statement of operations as incurred. These gains and losses were nominal in fiscal years 2018, 2017 and 2016.

The Company's other international operations are in Europe, Singapore and Canada, and use local currencies as the functional currency, including the Great Britain Pound, Euro, Singapore Dollar and Canadian Dollar. The translation adjustment resulting from currency translation of the local currency into the reporting currency (U.S. Dollar) is included as a separate component of stockholders' equity. The assets and liabilities have been translated from local currencies into U.S. Dollars using exchange rates in effect at the balance sheet dates. Results of operations have been translated using the average exchange rates during the period. Foreign currency translation resulted in a translation adjustment gains/(losses) of \$(0.7) million, \$2.5 million and \$(2.6) million in fiscal years 2018, 2017 and 2016, respectively, each of which are included in accumulated other comprehensive income/(loss) in the consolidated balance sheets.

Stock-Based Compensation — The Company's stock-based compensation expense is based on the fair value of the award measured on the date of grant. For stock option awards, the grant date fair value is measured using a Black-Scholes option valuation model. For stock awards, the Company's stock price on the date of the grant is used to measure the grant date fair value. For awards of stock which are based on a fixed monetary value, the grant date fair value is based on the monetary value. Stock-based compensation costs are recognized as an expense over the requisite service period of the award using the straight-line method.

Recent Accounting Standards

The Company has considered all recently issued accounting standards updates and SEC rules and interpretive releases.

Standard	Description	Effective Date	Effect on the Financial Statements or Other Significant Matters
In August 2017, the FASB issued ASU 2017-12, Targeted Improvements to Accounting for Hedging Activities.	The new guidance improves the financial reporting of hedging relationships to better portray the economic results of an entity's risk management activities in its financial statements through changes to both the designation and measurement guidance for qualifying hedging relationships and the presentation of hedge results.	August 1, 2019. Early adoption is permitted.	The Company is currently evaluating the impact of adoption on its financial statements and related disclosures, but does not expect adoption will have a material impact as the Company does not currently utilize hedge accounting for derivative instruments.
In January 2017, the FASB issued ASU 2017-04, Intangibles: Goodwill and Other: Simplifying the Test for Goodwill Impairment.	The new guidance simplifies subsequent measurement of goodwill by eliminating Step 2 from the goodwill impairment test.	August 1, 2020. Early adoption is permitted.	The Company adopted the new guidance as of August 1, 2017, as part of the FASB's simplification initiative. The adoption of the new guidance did not have an impact to the Company.
In June 2016, the FASB issued ASU 2016-13, Financial Instruments—Credit Losses (Topic 326), Measurement of Credit Losses on Financial Instruments	The new guidance changes the impairment model for most financial assets and certain other instruments, including trade and other receivables, held-to-maturity debt securities and loans, and requires entities to use a new forward-looking expected loss model that will result in the earlier recognition of allowance for losses.	August 1, 2020. Early adoption is permitted.	The Company does not expect adoption will have a material impact on its consolidated financial statements and related disclosures.
In February 2016, the FASB issued ASU 2016-02, Leases.	The new guidance supersedes the lease guidance under FASB Accounting Standards Codification ("ASC") Topic 840, Leases, resulting in the creation of FASB ASC Topic 842, Leases. The guidance requires a lessee to recognize in the statement of financial position a liability to make lease payments and a right-of-use asset representing its right to use the underlying asset for the lease term for both finance and operating leases.	August 1, 2019. Early adoption is permitted.	The Company is currently evaluating its population of leases, and is continuing to assess all potential impacts of the standard, but currently believes the most significant impact relates to its accounting for manufacturing and logistics equipment, and real estate operating leases. The Company anticipates recognition of additional assets and corresponding liabilities related to leases upon adoption, but cannot quantify these at this time. The Company plans to adopt the standard effective August 1, 2019.
In May 2014, the FASB issued ASU 2014-09, Revenue from Contracts with Customers. Since that date, the FASB has issued additional ASUs clarifying certain aspects of ASU 2014-09.	The new guidance requires entities to recognize revenue in a way that depicts the transfer of promised goods or services to customers in an amount that reflects the consideration to which the entity expects to be entitled to in exchange for those goods or services. The new guidance provides alternative methods of adoption. Subsequent guidance issued after May 2014 did not change the core principle of ASU 2014-09.	August 1, 2018.	The Company has completed its assessment of significant revenue contracts and the guidance will not have a significant impact on its consolidated financial statements. The Company is still evaluating the required changes in disclosure for the footnotes to the consolidated financial statements. The Company plans to adopt the revenue guidance effective August 1, 2018, and is going to utilize the modified retrospective method of adoption.

2. ACQUISITIONS

On June 15, 2017, the Company completed the acquisition of Flowchem Holdings LLC (“Flowchem”). The consideration paid on the closing date was the purchase price of \$495.0 million plus \$11.4 million for cash acquired. A subsequent working capital adjustment of \$1.0 million reduced the total consideration in the acquisition to \$505.4 million. Based in Waller, Texas, Flowchem is a global provider of drag-reducing agents, related support services and equipment to midstream crude oil and refined fuel pipeline operators. To finance the acquisition the Company entered into a new credit agreement providing for a seven year syndicated term loan of \$550.0 million term loan. See Note 8 for further discussion of the Company’s credit agreement. The Company expensed transaction and acquisition-related costs of approximately \$0.5 million and \$0.7 million in the fiscal years ended July 31, 2018 and 2017, respectively, which is included in selling, general and administrative expenses on the Company’s consolidated statement of income.

The Company has accounted for the purchase using the acquisition method of accounting for business combinations. Accordingly, the purchase price has been allocated to the underlying assets and liabilities in proportion to their respective fair values. The following table summarizes the acquired assets and assumed liabilities and the acquisition accounting for the fair value of the assets and liabilities recognized in the consolidated balance sheet at July 31, 2018 (in thousands):

Cash	\$	11,445
Accounts receivable		10,051
Inventory		9,310
Other current assets		499
Property, plant and equipment		19,665
Intangible assets:		
Customer relationships		205,467
Trade names and trademark		32,353
Proprietary manufacturing process		39,323
Total assets		328,113
Current liabilities		3,314
Deferred tax liability		27,418
Net identifiable assets acquired	\$	297,381
Goodwill		208,062
Fair value of net assets acquired	\$	505,443

The fair value of the accounts receivable acquired was \$10.1 million, equivalent to the amount the Company expects to be collected. The \$208.1 million of goodwill was assigned to the performance materials segment, and the Company expects \$168.6 million of goodwill to be tax deductible. The goodwill is primarily attributable to the assembled workforce of Flowchem and the allocation of proceeds in excess of the fair value of net identifiable assets acquired.

Flowchem was consolidated into our financial statements starting on its acquisition date. The net sales and net income of Flowchem recorded in our consolidated statement of income from its acquisition date through July 31, 2017, were \$9.4 million and \$(0.3) million, respectively. The following unaudited pro forma financial information presents our results as if the Flowchem acquisition had occurred at the beginning of fiscal year 2016 (in thousands, except for per share amounts):

	Year Ended July 31,	
	2017	2016
Net sales	\$ 410,243	\$ 375,841
Net income	23,336	11,869
Earnings per share		
Basic	\$ 1.96	\$ 1.01
Diluted	1.90	1.00

The unaudited pro forma information presented above is for information purposes only and is not necessarily indicative of the operating results that would have occurred had the Flowchem acquisition been consummated at the beginning of the period, nor is it necessarily indicative of future operating results. The unaudited supplemental pro forma financial information includes adjustments reflecting (i) estimated annual depreciation and amortization of approximately \$30.4 million and \$30.2 million in each of fiscal years 2017 and 2016, respectively, that would have been charged assuming the fair value adjustments to property, plant and equipment and intangible assets had been applied from August 1, 2015; (ii) estimated annual interest expense of approximately \$30.9 million and \$30.4 million in each of fiscal years 2017 and 2016, respectively, including the amortization and deferred financing costs and original issue discount that would have been recorded as a result of the debt issued to finance the Flowchem acquisition; (iii) the elimination of transaction-related costs of \$1.7 million in fiscal year 2017; and (iv) an adjustment to tax-effect the aforementioned unaudited pro forma adjustments using an estimated aggregate statutory income tax rate of the jurisdiction to which the above adjustments relate. The unaudited pro forma amounts do not include any potential synergies, cost savings or other expected benefits of the Flowchem acquisition.

During the year ended July 31, 2018, measurement period adjustments were made to the preliminary purchase price allocation recorded in the consolidated financial statements for the fiscal year ended July 31, 2017. The acquired intangible assets, deferred tax liabilities, goodwill, accounts receivable and current liabilities were adjusted as a result of additional analyses performed on the estimates used in the calculation of the fair value of the assets acquired and liabilities assumed. The measurement period adjustments to the amortizable intangible assets resulted in a reduction in the amortization expense going forward. The Company's measurement period adjustments in fiscal year 2018 to the acquired deferred tax assets and liabilities were the result of further analyses performed over Flowchem's tax attributes as of the date of the business combination, which increased the recognized goodwill.

	Measurement		
	July 31, 2018	Period Adjustment	July 31, 2017
Customer relationships	\$ 205,467	\$ (9,415)	\$ 214,882
Trade names and trademarks	32,353	3,402	28,951
Proprietary manufacturing process	39,323	78	39,245
Accounts receivable	10,051	(1,229)	11,280
Deferred tax liability	27,418	2,372	25,046
Current liabilities	3,314	182	3,132
Goodwill	208,062	8,716	199,346

On February 1, 2017, the Company completed the acquisition of the assets of Sealweld Corporation ("Sealweld"), a privately held corporation organized under the laws of the Province of Alberta, Canada, for CAD\$22.3 million in cash (or approximately US\$17.2 million, at an exchange rate of 0.77 CAD\$ to US\$ at February 1, 2017), which included CAD\$5.5 million (or approximately US\$4.2 million, at an exchange rate of 0.77 CAD\$ to US\$ at February 1, 2017) for estimated working capital. Sealweld is based in Calgary, Alberta, Canada, with an additional facility in the United States. Sealweld is a global supplier of high-performance products and services for industrial valve and actuator maintenance, including lubricants, sealants, cleaners, valve fittings, tools and equipment. Additionally, Sealweld provides routine and emergency valve maintenance services and technician training for many of the world's largest pipeline operators. The Company completed the acquisition by borrowing \$17.0 million on the revolving loan under its revolving credit facility. See Note 8 for further discussion of the Company's revolving credit facility. Sealweld is included in the performance materials segment. The Company expensed transaction and acquisition-related costs of approximately \$0.8 million in the fiscal year ended July 31, 2017, which is included in selling, general and administrative expenses on the Company's consolidated statement of income.

The following table summarizes the acquired assets and assumed liabilities and the acquisition accounting for the fair value of the assets and liabilities recognized in the consolidated balance sheet at July 31, 2017 (in thousands):

Cash	\$ 69
Accounts receivable	2,937
Inventory	2,350
Other assets	38
Property, plant and equipment, net	4,192
Intangible assets	
Trade name/trademark	2,185
Non-compete agreements	2,254
Customer relationships	2,348
Total assets acquired	<u>\$ 16,373</u>
Current liabilities	1,272
Deferred tax liability	681
Net identifiable assets acquired	14,420
Goodwill	2,771
Fair value of net assets acquired	<u>\$ 17,191</u>

This purchase price allocation is final. The fair value of the accounts receivable acquired was \$2.9 million, equivalent to the contractual amount acquired. The Company collected substantially all acquired accounts receivable. During the fiscal quarter ended January 31, 2018, the Company recorded a measurement period adjustment of \$0.1 million to the acquired current liabilities as a result of the identification of certain tax liabilities existing at the date of the acquisition. As a result of the measurement period adjustment, the Company increased goodwill from \$2.7 million to \$2.8 million. The goodwill was assigned to the performance materials segment, and the Company expects \$0.1 million of goodwill to be tax deductible. The goodwill is primarily attributable to the assembled workforce of Sealweld.

On April 4, 2016, the Company completed the acquisition of Nagase Finechem Singapore (Pte) Ltd. ("NFC"), a Singapore-based manufacturer of electronic chemicals, for a cash purchase price of \$2.9 million, including \$1.1 million of estimated net working capital. NFC's five-acre Singapore site comprises a manufacturing and packaging facility, warehouse, laboratory and cleanroom. The acquired company manufactures wet process chemicals, including solvents, acids and custom blends for the liquid crystal display and semiconductor markets, and provides recycling and refining services for certain customers. The Company completed the acquisition by borrowing \$2.8 million on the revolving loan under its revolving credit facility. See Note 8 for further discussion of the Company's revolving credit facility. The Company expensed transaction and acquisition-related costs of approximately \$0.2 million in the fiscal quarter ended April 30, 2016, which is included in selling, general and administrative expenses on the Company's consolidated statement of income.

The following table summarizes the acquired assets and assumed liabilities and the acquisition accounting for the fair value of the assets and liabilities recognized in the consolidated balance sheets at July 31, 2016 (in thousands):

Cash	\$ 228
Accounts receivable	1,862
Other assets	101
Property, plant and equipment, net	3,242
Intangible assets	
Licensing agreement	73
Toll manufacturing agreement	255
Total assets acquired	<u>\$ 5,761</u>
Total current liabilities assumed	1,028
Fair value of net assets acquired	<u>\$ 4,733</u>

The aggregate fair value of the working capital (assets and liabilities), property, plant and equipment and intangible assets acquired were determined by management to exceed the consideration paid for the acquisition, resulting in a bargain purchase gain under GAAP. In reaching that conclusion, management noted that there were no other liabilities being assumed in connection with the acquisition, including no environmental liabilities. Management believes the seller had determined to perform the transaction as part of an overall repositioning of its business. Based on these considerations, the Company recorded a gain of \$1.8 million in connection with the bargain purchase during the year ended July 31, 2016. The pro forma impact on consolidated results is immaterial for the year ended July 31, 2016.

3. CASH, CASH EQUIVALENTS AND RESTRICTED CASH

The following table provides a reconciliation of cash, cash equivalents and restricted cash reported within the consolidated balance sheets that sum to the total of the same amounts shown in the consolidated statements of cash flows:

	July 31, 2018	July 31, 2017	July 31, 2016
Current Presentation			
Cash and cash equivalents	\$ 24,436	\$ 20,708	\$ 12,428
Restricted cash	—	—	1,000
Total cash, cash equivalents and restricted cash	<u>\$ 24,436</u>	<u>\$ 20,708</u>	<u>\$ 13,428</u>

The Company's restricted cash includes cash balances which are legally or contractually restricted to use. The Company's restricted cash was included in other long term assets as of July 31, 2016 and included proceeds that were placed in escrow in connection with the sale of the animal health business in fiscal year 2013. These proceeds were released from escrow in February 2017.

4. INVENTORIES

Inventories are summarized as follows at July 31, 2018 and 2017 (in thousands):

	2018	2017
Raw materials and supplies	\$ 12,123	\$ 9,124
Work in process	3,343	884
Supplies	613	3,763
Finished products	38,402	33,341
Less reserve for inventory obsolescence	(263)	(630)
Inventories, net	<u>\$ 54,218</u>	<u>\$ 46,482</u>

5. PROPERTY, PLANT AND EQUIPMENT

Property, plant, and equipment and related accumulated depreciation and amortization are summarized as follows at July 31, 2018 and 2017 (in thousands):

	2018	2017
Land	\$ 16,293	\$ 12,632
Buildings and improvements	51,862	50,973
Equipment	121,304	106,379
Leasehold improvements	2,777	2,755
	<u>192,236</u>	<u>172,739</u>
Less accumulated depreciation and amortization	<u>(91,315)</u>	<u>(76,974)</u>
	100,921	95,765
Construction-in-progress	16,180	9,670
Property, plant and equipment, net ⁽¹⁾	<u>\$ 117,101</u>	<u>\$ 105,435</u>

- (1) In fiscal year 2016, as part of the Company's ongoing review of its Milan production facilities, the Company determined that certain other facilities had excess capacity sufficient to absorb the manufacturing operations of one of its Milan plants. As a result, the Company committed to sell properties with a total estimated fair value, less costs to sell, of approximately \$4.3 million at July 31, 2016. Assets held for sale are included in Prepaid expenses and other in Current assets. In April 2018, the Company decided to use the facility for storage and reclassified these assets to held and used, and accordingly recognized depreciation expense of \$0.1 million.

6. INCOME TAXES

The Company is subject to United States federal, state and foreign taxes on its operations. The geographical sources of income before income taxes for each of the three years ended July 31, 2018, 2017 and 2016 are as follows (in thousands):

	<u>2018</u>	<u>2017</u>	<u>2016</u>
United States	\$ 51,438	\$ 27,642	\$ 28,820
Foreign	12,961	4,800	(590)
Income before income taxes	<u>\$ 64,399</u>	<u>\$ 32,442</u>	<u>\$ 28,230</u>

The components of income tax expense/(benefit) for the years ended July 31, 2018, 2017 and 2016 consisted of the following (in thousands):

	<u>2018</u>	<u>2017</u>	<u>2016</u>
Current:			
Federal	\$ 2,080	\$ 7,620	\$ 7,900
Foreign	1,990	511	166
State	1,478	1,588	1,275
	<u>5,548</u>	<u>9,719</u>	<u>9,341</u>
Deferred:			
Federal	(6,435)	(1,052)	358
Foreign	(588)	160	(261)
State	1,033	(18)	117
	<u>(5,990)</u>	<u>(910)</u>	<u>214</u>
Total	<u>\$ (442)</u>	<u>\$ 8,809</u>	<u>\$ 9,555</u>

Deferred income taxes are provided on all temporary differences between financial and taxable income. The following table presents the components of the Company's deferred tax assets and liabilities at July 31, 2018 and 2017 (in thousands):

	<u>2018</u>	<u>2017</u>
Non-current deferred tax assets		
Inventory	\$ 415	\$ 933
Net operating loss	1,185	1,233
Employee benefits	284	2,322
Deferred compensation	3,184	3,922
Accrued liabilities	14	43
Other	808	982
Less valuation allowance	(575)	(1,768)
Total non-current deferred tax assets	<u>\$ 5,315</u>	<u>\$ 7,667</u>
Non-current deferred tax liabilities:		
Difference in amortization basis of intangibles	\$ (27,616)	\$ (34,851)
Difference in depreciable basis of property	(7,330)	(6,722)
Other	(1,782)	(767)
Total non-current deferred tax liabilities	<u>(36,728)</u>	<u>(42,340)</u>
Net non-current deferred tax liability	<u>\$ (31,413)</u>	<u>\$ (34,673)</u>

On December 22, 2017, the U.S. government enacted comprehensive tax legislation commonly referred to as the Tax Cuts and Jobs Act of 2017 (the "Tax Act"). The Tax Act significantly revises the future ongoing U.S. corporate income tax by, among other things, lowering the U.S. corporate income tax rate from 35% to 21%, changing how foreign earnings are subject to U.S. tax by implementing a territorial tax system, and eliminating certain deductions, including the domestic manufacturing deduction. The Tax Act also enhances and extends through 2026 the option to claim accelerated depreciation deductions on qualified property. As the Company has a July 31 fiscal year-end, the lower corporate income tax rate will be phased in, resulting in a U.S. statutory federal rate of approximately 27% for the fiscal year ending July 31, 2018, and 21% for subsequent fiscal years. Under GAAP, the Company is required to recognize the effects of changes in tax laws and tax rates on deferred tax assets and liabilities in the period in which the new legislation is enacted.

Shortly after the Tax Act was enacted, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 118, Income Tax Accounting Implications of the Tax Cuts and Jobs Act (“SAB 118”) which provides guidance on accounting for the Tax Act’s impact. In accordance with SAB 118, a company must reflect the income tax effects of the Tax Act in the reporting period in which the accounting under ASC 740 is complete. To the extent that a company’s accounting for certain income tax effects of the Tax Act is incomplete but it is able to determine a reasonable estimate, it must record a provisional estimate in the financial statements. If a company cannot determine a provisional estimate to be included in the financial statements, it should continue to apply ASC 740 on the basis of the provisions of the tax laws that were in effect immediately before the enactment of the Tax Act.

The Company’s accounting for the following elements of the Tax Act is incomplete. However, the Company was able to make reasonable estimates of certain effects and, therefore, recorded provisional adjustments as follows:

- For the fiscal year ended July 31, 2018, the Company recorded a net tax benefit of approximately \$12.3 million for the re-measurement of net deferred tax liabilities as of December 31, 2017. This adjustment is based on a reasonable estimate of the impact of the reduction in the corporate tax rate. While the Company is able to make a reasonable estimate of the impact, its deferred taxes may be affected by changes in the Company’s interpretations and assumptions, as well as additional guidance on the interpretation of the Tax Act.
- The Deemed Repatriation Transition Tax (Transition Tax) is a tax on previously untaxed accumulated and current earnings and profits (“E&P”) of certain of the Company’s foreign subsidiaries. To assess the amount of the Transition Tax, the Company must determine, in addition to other factors, the amount of post-1986 E&P of the relevant subsidiaries, as well as the amount of non-U.S. income taxes paid on such earnings. The Company is able to make a reasonable estimate of the Transition Tax and currently estimate that it will not have a material Transition Tax obligation. However, the Company is continuing to review additional information regarding its accumulated E&P and non-U.S. income taxes paid to more precisely compute the amount of the Transition Tax, if any.
- Furthermore, as a result of the Tax Act, the Company is currently analyzing its global working capital requirements and the potential tax liabilities that would be incurred if certain non-U.S. subsidiaries made distributions, which include local country withholding tax and potential U.S. state taxation. In prior years, no provision for U.S. income taxes or withholding taxes had been made on the cumulative undistributed earnings of foreign companies because the Company intended to permanently reinvest all the foreign earnings outside the U.S. with the exception of Mexico operations.
- The Company is also analyzing other provisions of the Tax Act such as potential limitations on the amount of currently deductible interest expense, and the limitations on the deductibility of certain executive compensation.

The changes included in the Tax Act are broad and complex and the Company does not have all the necessary information to analyze all income tax effects of the Tax Act. In addition, there is uncertainty about the interpretation of the Tax Act and the Internal Revenue Service guidance on the Tax Act.

As of July 31, 2018 and 2017, the Company has recorded a valuation allowance of \$0.6 million and \$1.8 million related to some of the Company’s European and Asian tax jurisdictions and certain state net operating loss carryforwards. In assessing whether a deferred tax asset will be realized, the Company considers whether it is more likely than not that some portion or all of the deferred tax asset will not be realized. The Company considers the reversal of existing taxable temporary differences, projected future taxable income and tax planning strategies in making this assessment. Based upon the level of historical taxable income and projections for future taxable income over the periods in which the deferred tax assets are deductible, the Company believes it is more likely than not that it will realize the benefits of these deductible differences, net of the existing valuation allowances, as of July 31, 2018.

As of July 31, 2018, the Company had \$2.3 million of foreign net operating loss carryforwards that do not expire, and \$0.7 million of U.S. federal net operating loss carryforward that expires in 2034.

The following table accounts for the differences between the actual tax provision, and the amounts obtained by applying the applicable statutory United States federal income tax rate to income from continuing operations before income taxes for each of the years ended July 31, 2018, 2017, and 2016, respectively (in thousands):

	2018	2017	2016
Income taxes at the federal statutory rate	\$ 17,278	\$ 11,354	\$ 9,881
Effect of foreign operations	(196)	(198)	485
Change in valuation allowance	(1,244)	(1,218)	311
Impact of Tax Cut and Jobs Act	(12,326)	—	—
Impact of current year rate changes	(2,853)	—	—
Effects of foreign currency fluctuations	65	131	(330)
State income taxes, net of federal income tax effect	2,114	1,015	969
Production deduction and tax credits	(1,208)	(1,217)	(1,473)
Stock-based compensation	(2,398)	(964)	—
Acquisition related cost	378	151	85
Flowchem reorganization	—	(584)	—
Other	(52)	339	(373)
Total	\$ (442)	\$ 8,809	\$ 9,555

The Company's effective tax rate decreased in fiscal year 2018 primarily because of the impact of the Tax Act, and excess tax benefits from stock-based compensation.

For the years ended July 31, 2018 and 2017, stock-based compensation excess tax benefits of \$2.4 million and \$1.0 million, respectively, were reflected in the consolidated statements of income as a component of the provision for income taxes.

Uncertain Tax Positions

The Company records uncertain tax provisions in accordance with GAAP, which prescribes the minimum recognition threshold that a tax position is required to meet before being recognized in the financial statements. The Company recognizes interest and penalties related to uncertain tax positions in income tax expense. The statute of limitations remains open for the fiscal year ended July 31, 2015 and forward for United States federal income taxes and fiscal year ended July 31, 2013 and forward for state tax jurisdictions.

The Company is subject to income taxes in the U.S. (federal and state) and numerous foreign jurisdictions. Significant judgment is required in evaluating the Company's tax positions and determining its provision for income taxes. There are transactions and calculations for which the ultimate tax determination is uncertain. The Company establishes reserves for tax-related uncertainties based on estimates of whether, and the extent to which, additional taxes will be due or may be challenged despite the Company's belief that its tax return positions are supportable. The Company accounts for uncertain tax positions in accordance with FASB ASC 740, which prescribes the minimum recognition threshold a tax position taken or expected to be taken in a tax return is required to meet before being recognized in the financial statements.

The following table summarizes the activity related to the Company's gross unrecognized tax benefits (in thousands):

Balance at July 31, 2017	\$ 965
Increases related to prior years positions	10
Decreases related to prior year positions	(45)
Decrease related to lapse of applicable statute of limitations	(508)
Balance at July 31, 2018	\$ 422

The Company does not anticipate any significant changes to the unrecognized tax benefits within the next twelve months. The Company recognizes interest and penalties related to uncertain tax positions within the provision for income taxes in the consolidated statements of income. The Company recognized \$10 thousand and \$0.1 million in penalties and interest related to unrecognized tax benefits for the years ended July 31, 2018 and 2017, respectively.

In fiscal year 2017, the Company's subsidiary in Italy was successful in its appeal of a case related to income tax assessments for the three year period ended July 31, 2011, and settled litigation with the local taxing authority related to the registration tax assessment for the December 2007 purchase of the electronic chemicals business in Italy. During fiscal year 2017, the Company reversed its liability for its uncertain tax position in Italy as of July 31, 2016 of \$0.1 million.

7. INTANGIBLE ASSETS

Intangible assets subject to amortization are amortized over their estimated useful lives which are between five and twenty years. Intangible assets are summarized as follows (in thousands):

	<u>Number of Years</u>	<u>Original Cost</u>	<u>July 31, 2018</u>		
			<u>Accumulated Amortization</u>	<u>Foreign Currency Translation</u>	<u>Carrying Amount</u>
Intangible assets subject to amortization					
(range of useful life):					
Electronic chemicals-value of product qualifications (5-15 years)	15.0	12,800	(5,046)	(809)	6,945
Performance materials-customer relationships (15-20 years)	19.7	218,106	(14,024)	(2)	204,080
Performance materials-proprietary manufacturing process (15 years)	15.0	39,323	(2,949)	—	36,374
Electronic chemicals - Other (1-15 years)	7.0	2,190	(1,478)	(112)	600
Performance Materials - Other (5-15 years)	8.7	4,308	(843)	—	3,465
Total intangible assets subject to amortization	18.6	<u>\$ 276,727</u>	<u>\$ (24,340)</u>	<u>\$ (923)</u>	<u>\$ 251,464</u>
Intangible assets not subject to amortization:					
Performance materials-penta product registrations					8,765
Performance materials-related trade name and trademark					37,420
Performance materials-proprietary manufacturing process					2,808
Total intangible assets not subject to amortization					<u>48,993</u>
Total intangible assets, net					<u>\$ 300,457</u>

The following table presents the estimated aggregate amounts of amortization expense for the succeeding five years and thereafter, related to intangible assets as of July 31, 2018 (in thousands):

	<u>2019</u>	<u>2020</u>	<u>2021</u>	<u>2022</u>	<u>2023</u>	<u>Thereafter</u>
Total estimated aggregate amortization expense	\$ 15,671	\$ 15,445	\$ 15,219	\$ 14,918	\$ 14,724	\$ 175,487

	Number of Years	Weighted Average Amortization Period	July 31, 2017		
			Original Cost	Accumulated Amortization	Foreign Currency Translation
Intangible assets subject to amortization					
(range of useful life):					
Electronic chemicals-value of product qualifications (5-15 years)	14.1	14,100	(5,479)	(841)	7,780
Performance materials-customer relationships (15-20 years)	19.7	227,521	(3,244)	54	224,331
Performance materials-proprietary manufacturing process (15 years)	15.0	39,245	(322)	—	38,923
Electronic chemicals - other (1-15 years)	7.4	2,649	(1,740)	(114)	795
Performance materials - other (5-15 years)	6.2	3,160	(289)	54	2,925
Total intangible assets subject to amortization	13.6	<u>\$ 286,675</u>	<u>\$ (11,074)</u>	<u>\$ (847)</u>	<u>\$ 274,754</u>
Intangible assets not subject to amortization:					
Performance materials-penta product registrations					8,765
Performance materials-related trade name and trademark					34,074
Performance materials-proprietary manufacturing process					2,808
Total intangible assets not subject to amortization					<u>45,647</u>
Total intangible assets, net					<u>\$ 320,401</u>

Assets acquired in the acquisition of the industrial lubricants business in May 2015 included \$10.3 million of customer relationships and \$0.2 million of non-compete agreements, which are being amortized over fifteen and five years, respectively. Additionally, in connection with the acquisition, the Company recorded \$11.4 million of goodwill (non-deductible for tax). Assets acquired in the acquisition of the UPC subsidiaries in May 2013 included \$12.8 million of product qualifications and \$1.9 million of non-compete agreements, which are being amortized over fifteen and seven years, respectively. Total amortization expense related to intangible assets was approximately \$15.1 million, \$4.3 million and \$2.0 million for the fiscal years ended July 31, 2018, 2017 and 2016, respectively.

The Federal Insecticide, Fungicide and Rodenticide Act, (“FIFRA”), a health and safety statute, requires that one of our products within our performance materials segment be registered with the U.S. Environmental Protection Agency (“EPA”). Costs of such registration are included within the Performance materials – other, above, and are expensed over a period of fifteen years, the anticipated renewal period.

The following table presents carrying value of goodwill by operating segment as of July 31, 2018, 2017 and 2016 (in thousands):

	Performance Materials	Electronic Chemicals	Total
Balance as of July 31, 2016	\$ 14,504	\$ 7,724	\$ 22,228
Business acquisition - Sealweld	2,671	—	2,671
Business acquisition - Flowchem	199,346	—	199,346
Foreign currency translation adjustment	7	139	146
Balance as of July 31, 2017	<u>216,528</u>	<u>7,863</u>	<u>224,391</u>
Business acquisition - Sealweld purchase price adjustments	100	—	100
Business acquisition - Flowchem purchase price adjustments	8,716	—	8,716
Foreign currency translation adjustment	(15)	12	(3)
Balance as of July 31, 2018	<u>\$ 225,329</u>	<u>\$ 7,875</u>	<u>\$ 233,204</u>

8. LONG-TERM OBLIGATIONS

Working Capital

On June 15, 2017 the Company entered into a credit agreement (the "Credit Agreement") providing for a seven year syndicated senior secured term loan of \$550.0 million (the "Term Loan") and a five year senior secured revolving credit facility of \$50.0 million (the "Revolving Loan"). At July 31, 2018, the Company had \$312.0 million outstanding under the Term Loan, with up to an additional \$47.0 million of additional borrowing capacity under the Revolving Loan after giving effect to a reduction of \$3.0 million reserved for outstanding letters of credit. In fiscal year 2018, the Company made \$3.2 million of scheduled principal payments and \$224.8 million of prepayments on the Term Loan, using \$175.6 million in proceeds from the sale of common stock. Associated with the prepayments on the Term Loan, the Company recognized \$6.7 million as loss on the extinguishment of debt due to the accelerated amortization of debt issuance costs and original issue discount.

Long Term Obligations

The Company's long-term debt and current maturities as of July 31, 2018 and 2017 consisted of the following (in thousands):

	<u>July 31, 2018</u>	<u>July 31, 2017</u>
Senior secured debt:		
Term loan, maturing on June 15, 2024, variable interest rates based on LIBOR plus 2.75% at July 31, 2018	\$ 312,000	\$ 540,000
Revolving loan facility, maturing on June 15, 2022, variable interest rates based on LIBOR plus 2.25% at July 31, 2018	—	—
Total debt	<u>312,000</u>	<u>540,000</u>
Current maturities of long-term debt	—	(3,167)
Unamortized debt issuance costs and original issue discount	(5,881)	(13,731)
Long-term debt, net of current maturities	<u>\$ 306,119</u>	<u>\$ 523,102</u>

As described above, on June 15, 2017 the Company entered into the Credit Agreement with KeyBank National Association, as agent, KeyBanc Capital Markets Inc., HSBC Securities (USA) Inc., and JPMorgan Chase Bank, N.A., as joint lead arrangers and joint bookrunners, and ING Capital LLC, as documentation agent. The proceeds from the Term Loan under the Credit Agreement were used to finance the acquisition of Flowchem, pay the costs and expenses related to the acquisition of Flowchem, and to repay in full the \$31.0 million then outstanding indebtedness under the Company's prior revolving credit facility. The Company did not draw upon the Revolving Loan at the closing of the Credit Agreement. In connection with the refinancing, the Company charged to loss on the extinguishment of debt \$0.4 million of unamortized debt issuance costs related to the Company's prior revolving credit facility.

On December 19, 2017, the Company entered into an amendment to the Credit Agreement to reduce the interest rate margins applicable to borrowings under the Term Loan and the Revolving Loan.

The Term Loan under the Credit Agreement bears interest at a varying rate of LIBOR plus a margin based on net funded debt to adjusted EBITDA, as described in the table below.

Ratio of Net Funded Debt to Adjusted EBITDA	Margin
Greater than 2.5 to 1.0	2.75%
Less than or equal to 2.5 to 1.0	2.50%

As of July 31, 2018, the Term Loan bore interest at 4.827%.

The Revolving Loan under the Credit Agreement bears interest at a varying rate of LIBOR plus a margin based on net funded debt to adjusted EBITDA, as described in the table below.

Ratio of Net Funded Debt to Adjusted EBITDA	Margin
Greater than 4.25 to 1.0	2.75%
Greater than 3.75 to 1.0, but less than or equal to 4.25 to 1.0	2.50%
Less than 3.75 to 1.0	2.25%

As of July 31, 2018, the Revolving Loan bore interest at 4.327%. There were no outstanding borrowings under the Revolving Loan as of July 31, 2018. The Company also incurs an unused commitment fee on the unused amount of commitments under the Revolving Loan of 0.375%.

Loans under the Credit Agreement are secured by the Company's domestic assets, including stock in subsidiaries, inventory, accounts receivable, equipment, intangible assets, and real property. The Credit Agreement has restrictive covenants, including a covenant that the Company must maintain a consolidated net leverage ratio below 5.75 to 1.0 through the fiscal quarter ended April 30, 2019, which ratio is reduced each year thereafter by an amount set forth in the Credit Agreement, until the twelve months ended April 30, 2022, following which the Company must maintain a consolidated net leverage ratio below 4.0 to 1.0. As of July 31, 2018, the Company was in compliance with all covenants of the Credit Agreement.

Principal payments due under long-term debt agreements as of July 31, 2018 for the fiscal years ended July 31 are as follows (in thousands):

	Total	2019	2020	2021	2022	2023	Thereafter
Long-term debt	\$ 312,000	\$ —	\$ —	\$ —	\$ —	\$ —	\$ 312,000

On August 11, 2017, the Company entered into interest rate swap agreements (the "Swap Transaction") to management its exposure to fluctuations in variable interest rates. The Swap Transaction effectively exchanged the interest rate on \$174.1 million, or approximately 55.8% of the debt outstanding under the Credit Agreement at July 31, 2018 from (i) variable LIBOR plus margin to (ii) a fixed rate of 1.925% per annum plus margin. For fiscal year 2018, net payments required under the Company's interest rate swap agreements increased interest expense by \$0.6 million.

9. FAIR VALUE MEASUREMENTS

Fair Value Hierarchy

Fair value is the price that would be received to sell an asset or paid to transfer a liability in an orderly transaction between market participants at the measurement date. There are three approaches for measuring the fair value of assets and liabilities: the market approach, the income approach and the cost approach, each of which includes multiple valuation techniques.

The fair value accounting standards do not prescribe which valuation technique should be used when measuring fair value and do not prioritize among the techniques. These standards establish a fair value hierarchy that prioritizes the inputs used in applying the various valuation techniques. Inputs broadly refer to the assumptions that market participants use to make pricing decisions, including assumptions about risk. Level 1 inputs are given the highest priority in the fair value hierarchy while Level 3 inputs are given the lowest priority. The three levels of the fair value hierarchy are as follows:

- Level 1 – Observable inputs that reflect unadjusted quoted prices for identical assets or liabilities in active markets as of the reporting date. Active markets are those in which transactions for the asset or liability occur in sufficient frequency and volume to provide pricing information on an ongoing basis.
- Level 2 – Observable market-based inputs or unobservable inputs that are corroborated by market data. These are inputs other than quoted prices in active markets included in Level 1, which are either directly or indirectly observable as of the reporting date.
- Level 3 – Unobservable inputs for which there is little, if any, market activity for the asset or liability being measured. These inputs reflect management's best estimates of the assumptions market participants would use in determining fair value. The level 3 measurements consist of instruments using standard pricing models and other valuation methods that utilize unobservable pricing inputs that are significant to the overall fair value.

Valuation techniques that maximize the use of observable inputs are favored. Assets and liabilities are classified in their entirety based on the lowest priority level of input that is significant to the fair value measurement. The assessment of the significance of a particular input to the fair value measurement requires judgment and may affect the placement of assets and liabilities within the levels of the fair value hierarchy.

Significant uses of fair value measurements include:

- impairment assessments of long-lived assets;
- impairment assessments of goodwill;
- recorded value of derivative instruments; and
- assets acquired and liabilities assumed in business combinations.

Fair Values – Recurring

The derivative instrument transactions were entered into on August 14, 2017, and as of July 31, 2018 are included within Level 2 other assets, net in the Company's condensed consolidated balance sheet. The following tables present the fair value hierarchy table for assets and liabilities measured at fair value, on a recurring basis (in thousands):

Description	Fair Value Measurements at July 31, 2018, Using:			
	Level 1	Level 2	Level 3	Total
Assets				
Derivatives – interest rate swaps	\$ —	\$ 5,576	\$ —	\$ 5,576
Total	\$ —	\$ 5,576	\$ —	\$ 5,576

Derivative assets consist of interest rate swaps entered into to mitigate the risk relating to possible adverse changes in interest rates for the Company's floating rate borrowings. The fair value of the interest rate swaps is estimated as the net present value of projected cash flows based upon forward interest rates at the balance sheet date. The models used to value the interest rate swaps are based primarily on readily observable market data, such as LIBOR forward rates, for all substantial terms of the interest rate swap contracts and the credit risk of the counterparties. As such, these derivative instruments are included in Level 2 inputs. See Note 10, *Derivative Financial Instruments*.

Fair Values – Non-Recurring

In addition to the financial assets and liabilities included in the above table, certain nonfinancial assets and liabilities are to be measured at fair value on a nonrecurring basis in accordance with applicable GAAP. In general, nonfinancial assets including goodwill, other intangible assets and property and equipment are measured at fair value when there is an indication of impairment and are recorded at fair value only when an impairment is recognized. As of July 31, 2018, the Company had not recorded any impairment related to such assets and had no other material nonfinancial assets or liabilities requiring adjustments or write-downs to their current fair value.

As allowed by applicable FASB guidance, the Company has elected not to apply the fair value option for financial assets and liabilities to any of its currently eligible financial assets or liabilities. As of July 31, 2018, the Company's material financial assets and liabilities not carried at fair value included cash and cash equivalents, accounts receivable, accounts payable and accrued expenses. These financial instruments are recorded at their carrying values which are deemed to approximate fair value, generally due to their short periods to maturity.

10. DERIVATIVE FINANCIAL INSTRUMENTS

The Company held certain derivative instruments that were accounted for pursuant to ASC 815, *Derivatives and Hedging* (ASC 815). The Company entered into certain interest rate swaps with initial notional amounts totaling \$243.0 million, to limit its exposure to variability of the one-month LIBOR floating interest rate on a significant portion of the outstanding balance of its Term Loans. See Note 8, *Long-Term Obligations*. The interest rate swap agreements are in place with two U.S.-based counterparties, with expected termination dates of June 15, 2024

Every derivative instrument is required to be recorded on the balance sheet as either an asset or a liability measured at its fair value. If the derivative does not qualify as a hedge or is not designated as a hedge, changes in fair value of these non-hedge derivatives are recognized in earnings in derivative fair value income or loss.

None of the derivative instruments are used for trading purposes. The effects of the derivative instruments on the condensed consolidated financial statements were as follows as of or for each of the period presented below (amounts presented exclude any income tax effects):

The combined fair value of derivatives not designated as hedging instruments included in the accompanying condensed consolidated balance sheet as of July 31, 2018 is summarized below (in thousands).

Description	Location	Fair Value as of July 31, 2018
Derivative instruments – interest rate swaps		Other assets, net \$ 5,576

The effects of derivatives not designated as hedging instruments on the condensed consolidated statements of income for the twelve months ended July 31, 2018 are summarized below (in thousands).

Description	Location	Year Ended July 31, 2018	Year Ended July 31, 2017
Derivative instruments – interest rate swaps	Derivative fair value gain	\$ 5,576	\$ —

11. COMMITMENTS AND CONTINGENCIES

Contractual Obligations — The Company has non-cancelable operating leases for its office and warehouse facilities and certain transportation equipment and purchase obligations. Our obligations to make future payments under such operating leases as of July 31, 2018 are summarized in the following table (in thousands):

	Total	2019	2020	2021	2022	2023	Thereafter
Operating leases	\$ 17,843	\$ 3,159	\$ 2,564	\$ 1,894	\$ 1,802	\$ 1,806	\$ 6,618

Rent expense relating to the operating leases was approximately \$4.3 million, \$3.7 million and \$3.1 million in fiscal years 2018, 2017 and 2016, respectively.

Environmental — The Company's operations are subject to extensive federal, state and local laws, regulations and ordinances in the United States and abroad relating to the generation, storage, handling, emission, transportation and discharge of certain materials, substances and waste into the environment, and various other health and safety matters. Governmental authorities have the power to enforce compliance with their regulations, and violators may be subject to fines, injunctions or both. The Company must devote substantial financial resources to ensure compliance.

Certain licenses, permits and product registrations are required for the Company's products and operations in the United States, Mexico and other countries in which it does business. The licenses, permits and product registrations are subject to revocation, modification and renewal by governmental authorities. In the United States in particular, producers and distributors of penta are subject to registration and notification requirements under federal law (including under FIFRA), and comparable state law) in order to sell this product in the United States. Compliance with these requirements has had, and in the future will continue to have, a material effect on our business, financial condition and results of operations.

The Company incurred expenses in connection with FIFRA research and testing programs of approximately \$0.2, \$0.1 million, and \$0.4 million, in fiscal years 2018, 2017 and 2016, respectively. These costs are included in selling, general, and administrative expenses.

Litigation and Other Contingencies — The Company is subject to contingencies, including litigation relating to environmental laws and regulations, commercial disputes and other matters. Certain of these contingencies are discussed below. The ultimate resolution of these contingencies is subject to significant uncertainty, and should the Company fail to prevail in any of them or should several of them be resolved against the Company in the same reporting period, these matters could, individually or in the aggregate, be material to the consolidated financial statements. The ultimate outcome of these matters, however, cannot be determined at this time, nor can the amount of any potential loss be reasonably estimated, and as a result except where indicated no amounts have been recorded in the Company's consolidated financial statements.

The Company records legal costs associated with loss contingencies as expenses in the period in which they are incurred.

On September 24, 2018, a putative shareholder class action was filed in the United States District Court for the Northern District of Texas styled *Richard Walter, individually and on behalf of all others similarly situated, v. KMG Chemicals, Inc., et. al.*, No. 4:18-cv-00785 (the “Walter Lawsuit”). The Walter Lawsuit names as defendants the Company and the members of its Board of Directors. The Walter Lawsuit asserts claims for alleged violation of Section 14(a) of the Exchange Act based on allegations that the Registration Statement on Form S-4 filed by Cabot Microelectronics with the SEC on September 12, 2018 in connection with the Merger is materially incomplete and misleading. The Walter Lawsuit further alleges that the Company’s directors violated Section 20(a) of the Exchange Act as alleged control persons. The Walter Lawsuit seeks, among other things, injunctive relief barring the defendants from holding a shareholder vote on the Merger or from consummating the Merger until they have issued adequate disclosures and monetary relief that is not quantified. The Company believes the allegations are without merit.

Shareholders may file additional lawsuits challenging the Merger, which may name the Company, Cabot Microelectronics, members of the boards of directors of either party, or others as defendants. No assurance can be made as to the outcome of such lawsuits or the lawsuits described above, including the amount of costs associated with defending these claims or any other liabilities that may be incurred in connection with the litigation of these claims. If plaintiffs are successful in obtaining an injunction prohibiting the parties from completing the Merger on the agreed-upon terms, such an injunction may delay the completion of the Merger in the expected timeframe, or may prevent the Merger from being completed altogether.

The EPA has listed the Star Lake Canal Superfund Site near Beaumont, Texas on the National Priorities List. The Company’s subsidiary, KMG-Bemuth, was notified in October 2014 that the EPA considered it to have potential liability under the Comprehensive Environmental Response, Compensation and Liability Act of 1980, as amended, also known as “CERCLA” in connection with this site by virtue of its relationship with certain alleged predecessor companies, including Idacon, Inc. (f/k/a Sonford Chemical Company). The EPA has estimated that the remediation will cost approximately \$22.0 million. The Company and approximately seven other parties entered into an agreement with the EPA in September 2016 to complete a remedial design phase of the remediation of the site. The remediation work will be performed under a separate future agreement. Although the Company has not conceded liability, the Company established a reserve of \$1.3 million in the third quarter of fiscal year 2015 in connection with the remedial design. As of July 31, 2018, the reserve remaining was \$1.0 million.

The Company is subject to federal, state, local and foreign laws and regulations and potential liabilities relating to the protection of the environment and human health and safety including, among other things, the cleanup of contaminated sites, the treatment, storage and disposal of wastes, the emission of substances into the air or waterways, and various health and safety matters. The Company expects to incur substantial costs for ongoing compliance with such laws and regulations. The Company may also face governmental or third-party claims, or otherwise incur costs, relating to cleanup of, or for injuries resulting from, contamination at sites associated with past and present operations. The Company accrues for environmental liabilities when a determination can be made that they are probable and reasonably estimable.

12. EMPLOYEE BENEFIT PLANS

The Company has a defined contribution 401(k) plan in which all regular U.S. employees are eligible to participate. The Company makes matching contributions under this plan of up to 4% of a participant’s compensation up to the annual regulated maximum amounts. The first 3% of the employee contribution is matched at 100%. The next 2% of the employee contribution is matched at 50%. Company contributions to the plan totaled approximately \$0.8 million, \$0.7 million and \$0.6 million in fiscal years 2018, 2017, and 2016, respectively.

The locations in the United Kingdom and Singapore make contributions to retirement plans that function as defined contribution retirement plans. The Company’s contributions to those plans were approximately \$1.7 million, \$2.0 million and \$1.6 million in fiscal years 2018, 2017 and 2016, respectively.

The Company’s other long-term liabilities included approximately \$1.6 million and \$1.5 million as of July 31, 2018 and 2017, respectively, related to benefit obligations in connection with the France location included in the acquisition of the UPC business. This payable is an unfunded benefit obligation of the Company.

The Company has an employee benefit arrangement for one of its former U.S. employees. As of July 31, 2018 and 2017, the associated liability was approximately \$0.3 million and \$0.4 million, respectively. The amount payable is a general obligation of the Company. Benefit payments under this arrangement, which the Company began paying in April 2013, will be paid for 10 years.

13. EARNINGS PER SHARE

Basic earnings per share have been computed by dividing net income by the weighted average shares outstanding. Diluted earnings per share have been computed by dividing net income by the weighted average shares outstanding plus potentially dilutive common shares. The following table presents information necessary to calculate basic and diluted earnings per share for periods indicated:

	Year Ended		
	2018	2017	2016
	(Amounts in thousands, except per share data)		
Net income from continuing operations	\$ 64,841	\$ 23,633	\$ 18,675
Weighted average shares outstanding			
Weighted average shares outstanding — basic	14,708	11,885	11,719
Dilutive effect of stock awards	403	401	207
Weighted average shares outstanding — diluted	15,111	12,286	11,926
Basic earnings per share	\$ 4.41	\$ 1.99	\$ 1.59
Diluted earnings per share	\$ 4.29	\$ 1.92	\$ 1.57

Outstanding stock-based awards are not included in the computation of diluted earnings per share under the treasury stock method, if including them would be anti-dilutive. There was an average of 900 shares, 3,858 shares and 11,281 shares for the fiscal years ended 2018, 2017 and 2016, respectively, not included in the computation of diluted earnings per share because they were anti-dilutive.

14. STOCK-BASED COMPENSATION

Stock-Based Incentive Plans

The Company adopted a 2016 Long-Term Incentive Plan (“2016 LTI Plan”) in January 2016 and it was approved by the shareholders at the annual meeting in January 2016. The Company adopted a 2009 Long-Term Incentive Plan (“2009 LTI Plan”) in October 2009 and it was approved by the shareholders at the annual meeting in December 2009 (the 2016 LTI Plan and the 2009 LTI Plan are referred to collectively as the “LTI Plans”).

The LTI Plans permit the granting of incentive stock options, non-qualified stock options, stock appreciation rights, restricted stock, restricted stock units, performance awards, dividend equivalent rights, and other awards. They are administered by the Board of Directors or a committee appointed by the Board of Directors. The Board has designated the Compensation and Development Committee as the administrator of the LTI Plans. Subject to the terms of the LTI Plans, the committee has the sole discretion to select the persons eligible to receive awards, the type and amount of incentives to be awarded, and the terms and conditions of awards. The committee also has the authority to interpret the LTI Plans, and establish and amend regulations necessary or appropriate for their administration. Any employee of the Company or a subsidiary of the Company or a director of the Company whose judgment, initiative, and efforts contributed or may be expected to contribute to the successful performance of the Company is eligible to participate. The maximum number of shares of the Company’s common stock that may be delivered pursuant to awards granted is 750,000 shares under the 2016 LTI Plan and 750,000 under the 2009 LTI Plan. No executive officer may receive in any calendar year stock options or stock appreciation rights, or awards that are subject to the attainment of performance goals, relating to more than 200,000 shares of common stock under the 2016 LTI Plan or 250,000 shares of common stock under the 2009 LTI Plan. At July 31, 2018, there were approximately 133,056 shares available for future grants under the 2016 LTI Plan and 63,490 shares available for future grants under the 2009 LTI Plan.

Accounting for Stock-Based Compensation

The Company recognized stock-based compensation costs of approximately \$8.0 million, \$6.3 million and \$4.8 million, respectively, for the fiscal years ended July 31, 2018, 2017 and 2016, and the related tax benefits of \$2.4 million, \$2.2 million and \$1.7 million, respectively, for the fiscal years ended July 31, 2018, 2017 and 2016. Stock-based compensation costs are recorded as selling, general and administrative expenses in the consolidated statements of income. The Company accounts for stock-based compensation costs at fair value measured on the date of grant of the award using a Black-Scholes option valuation model for stock option awards. Grant date fair value for stock awards is measured using the Company’s closing stock price on the date of grant of the stock awards where the award is based on a specific number of shares. Stock-based compensation costs are recognized as an expense over the requisite service period, generally the vesting period of the award, using the straight-line method.

As of July 31, 2018, there was approximately \$8.0 million of unrecognized compensation costs that are related to outstanding stock awards expected to be recognized over a weighted-average period of 1.6 years.

In connection with the election of Christopher T. Fraser as the Company’s President and Chief Executive Officer on September 24, 2013, the Company granted Mr. Fraser (i) 50,000 shares of common stock and (ii) time-based restricted stock awards for 30,000 shares of common stock (vesting over five years). The Company also agreed to grant performance-based restricted stock unit awards for an aggregate of 70,000 shares of common stock in five equal installments beginning in fiscal year 2014. The Company recorded an expense of approximately \$1.1 million in the first quarter of fiscal year 2014 for the grant date fair value of the 50,000 shares of common stock.

A summary of activity for stock-awards is presented below.

Performance-Based Stock Awards

The Company grants performance-based restricted stock unit (“RSU”) awards to certain executives and employees. Stock-based compensation for the awards is recognized over the requisite service period beginning on the date of grant through the end of the measurement period based on the number of RSUs expected to vest under the awards at the end of the measurement period. The expected percent of vesting is determined using certain performance measures described below and is re-evaluated at the end of each reporting period through the end of the measurement period.

At August 1, 2017, there were 374,175 non-vested performance-based RSU awards outstanding. During the fiscal year ended July 31, 2018, 69,292 performance-based RSU awards vested. As of July 31, 2018, the non-vested performance-based RSU awards consisted of awards granted to certain executives and employees in fiscal years 2018, 2017 and 2016 as summarized below, reflecting the target number of RSUs under the awards. Upon vesting, each RSU is converted to one share of common stock.

Date of Grant	Series Award	Target Award (RSUs)	Grant Date Fair Value	Measurement Period Ending	Actual or Expected Percentage of Vesting (1)	Shares Projected to Vest or Vested
Fiscal Year 2018 Awards						
12/5/2017	Series 4, Tranche 1	27,542	\$ 54.09	07/31/2020		
Forfeitures(2)		<u>(2,291)</u>				
Total Series 4, Tranche 1		25,251			100%	25,251
12/5/2017	Series 4, Tranche 2	27,541	\$ 54.09	07/31/2020		
Forfeitures(2)		<u>(2,291)</u>				
Total Series 4, Tranche 2		25,250			176%	44,440
2/15/2018	Series 1	7,287	\$ 60.22	7/31/2020		
4/5/2018	Series 1	100	\$ 60.93	7/31/2020		
Forfeitures(2)		<u>(300)</u>				
Total Series 1		7,087			176%	12,473
Fiscal Year 2017 Awards						
12/08/2016	Series 1	10,531	\$ 34.95	07/31/2019		
Forfeitures(2)		<u>(930)</u>				
Total Series 1		9,601			186%	17,875
04/28/2017	Series 4, Tranche 1	4,545	\$ 52.55	07/31/2019		
10/21/2016	Series 4, Tranche 1	44,337	\$ 29.11	07/31/2019		
Forfeitures(2)		<u>(8,442)</u>				
Total Series 4, Tranche 1		40,440			100%	40,440
04/28/2017	Series 4, Tranche 2	4,546	\$ 52.55	07/31/2019		
10/21/2016	Series 4, Tranche 2	44,337	\$ 29.11	07/31/2019		
Forfeitures(2)		<u>(8,442)</u>				
Total Series 4 - Tranche 2		40,441			186%	75,295
Fiscal Year 2016 Awards						
03/10/2016	Series 1	14,625	\$ 21.89	10/31/2018		
01/29/2016	Series 1	57,163	\$ 21.80	10/31/2018		
Forfeitures(2)		<u>(13,858)</u>				
Total Series 1		57,930			197%	114,223
01/19/2016	Series 3	55,292	\$ 20.89	07/31/2020	195%	107,543

- (1) The percentage vesting for performance-based RSU awards is currently estimated at 176%, 186% and 197% of the target award for Series 1 awards granted in fiscal years 2018, 2017 and 2016, respectively, 195% of the target award for Series 3 awards granted in fiscal year 2016, 100% and 176% of the target award for the first and second tranches, respectively, of the Series 4 awards granted in fiscal year 2018, and 100% and 186% of the target award for the first and second tranches, respectively, of the Series 4 awards granted in fiscal year 2017.
- (2) Forfeitures include Series 1 and Series 4 awards that were granted in fiscal years 2018, 2017 and 2016 to certain employees that were forfeited at the termination of their employment.

Series 1: For the fiscal year 2018, 2017 and 2016 awards, vesting is subject to performance requirements composed of certain objectives including adjusted average annual return on invested capital and annual compound growth rate in the Company's adjusted diluted earnings per share. These objectives are measured quarterly using the Company's budget, actual results and long-term projections. For each of the Series 1 awards, the expected percentage of vesting is evaluated through July 31, 2018, and reflects the percentage of RSUs projected to vest for the respective awards at the end of their measurement periods. For the fiscal year 2018, 2017 and 2016 awards, the awards may vest at a maximum of 200% of the target award on achievement of maximum performance objectives.

Series 3: In fiscal year 2016 Mr. Fraser was awarded a performance-based Series 3 award for 82,938 RSUs (at target) having performance requirements related to cumulative revenue and total stockholder return. The measurement period for the fiscal year 2016 award begins on November 1, 2015 and the award vests one-third (1/3) at July 31, 2018, 2019 and 2020. The award may vest at a maximum of 200% of the target award on achievement of maximum performance objectives.

Series 4: For the fiscal year 2018 and 2017 awards, each award includes two tranches. For the first tranche, vesting is subject to the achievement of an adjusted earnings before interest, taxes and depreciation and amortization ("EBITDA") metric. For the second tranche, vesting is subject to performance requirements for adjusted average annual return on invested capital and annual compound growth rate in the Company's adjusted diluted earnings per share. These objectives are assessed quarterly using the Company's budget, actual results and long-term projections. For each of the Series 4 awards, the expected percentage vesting is evaluated through July 31, 2018, and reflects the percentage of RSUs projected to vest at the end of the measurement period. For the fiscal year 2018 and 2017 awards, the RSUs in the second tranche may vest at a maximum of 200% of the target award on achievement of maximum performance objectives.

The weighted-average grant-date fair value of performance-based RSUs awards forfeited during the fiscal year 2018 was \$37.75. The weighted-average grant-date fair value of performance-based RSU awards outstanding at August 1, 2017 and July 31, 2018 was \$25.49 and \$30.99, respectively.

The total grant-date fair value of performance-based RSU awards vested during fiscal years 2018, 2017 and 2016 was approximately \$1.9 million, \$2.3 million, and \$2.1 million, respectively.

Time-Based Stock Awards

A summary of activity for time-based stock awards for the fiscal year ended July 31, 2018 is presented below:

	<u>Shares</u>	<u>Weighted-Average Grant-Date Fair Value</u>
Non-vested on August 1, 2016	211,368	\$ 21.28
Granted ⁽¹⁾	34,501	41.23
Vested ⁽²⁾	(63,852)	23.55
Forfeited ⁽³⁾	(8,414)	25.85
Non-vested on July 31, 2017	173,603	24.37
Granted ⁽⁴⁾	32,966	60.76
Vested ⁽⁵⁾	(48,675)	32.39
Forfeited ⁽³⁾	(4,106)	48.02
Non-vested on July 31, 2018	<u>153,788</u>	29.01

- (1) Includes 12,580 shares granted to non-employee directors during fiscal year 2018. Includes 11,342 RSUs granted to certain employees during fiscal year 2017 as special compensation. Includes 10,579 RSUs granted to certain employees during fiscal year 2017 which are expected to vest on July 31, 2019. The Company recognizes compensation expense related to the awards over the respective service period.
- (2) Includes 12,580 shares granted to non-employee directors during fiscal year 2017. The shares vest on the date of grant, and the Company recognizes compensation expense related to the awards over the respective service periods in accordance with GAAP. Includes 51,272 RSUs granted to employees. The vested amount includes 6,000 RSUs granted to Mr. Fraser. Upon vesting, each RSU was converted to one share of common stock.
- (3) Forfeitures includes RSU awards that were granted in fiscal years 2018 and 2017 to certain employees that were forfeited at the termination of their employment.
- (4) Includes 8,062 shares granted to non-employee directors during fiscal year 2018. Includes 17,517 RSUs granted to certain employees during fiscal year 2018 as special compensation. Includes 7,387 RSUs granted to certain employees during fiscal year 2018 which are expected to vest on July 31, 2020. The Company recognizes compensation expense related to the awards on a straight-line basis over the respective service period.
- (5) Includes 8,062 shares granted to non-employee directors for service during fiscal year 2018. The shares vest on the date of grant, and the Company recognizes compensation expense related to the awards over the respective service periods in accordance with GAAP. Includes 40,613 RSUs granted to employees. The vested amount includes 6,000 RSUs granted to Mr. Fraser. Upon vesting, each RSU was converted to one share of common stock.

The total grant date fair value of time-based RSU awards vested during the fiscal years ended 2018, 2017 and 2016 was approximately \$1.6 million, \$1.5 million, and \$0.8 million, respectively.

15. SEGMENT INFORMATION

The Company has two reportable segments—electronic chemicals and performance materials. In the fiscal quarter ended April 30, 2017, the Company’s management, including the chief executive officer, who is the chief operating decision maker, determined that the Company’s operations should be reported as the electronic chemicals segment and the performance materials segment. Previously the Company had two reportable segments – electronic chemicals and other chemicals. As of April 30, 2017, the performance materials segment includes the Company’s pipeline performance business and wood treating chemicals business that were previously referred to as the other chemicals segment. The Flowchem business acquired in June 2017 is included in the performance materials segment.

The business segment management reporting and controlling systems are based on the same accounting policies as those described in the summary of significant accounting policies. See Note 1.

	Year Ended July 31,		
	2018	2017	2016
	(Amount in thousands)		
Net Sales			
Electronic Chemicals	\$ 302,023	\$ 276,621	\$ 261,523
Performance Materials	163,533	56,821	36,455
Total consolidated net sales	<u>\$ 465,556</u>	<u>\$ 333,442</u>	<u>\$ 297,978</u>
Depreciation and amortization ⁽¹⁾			
Electronic Chemicals	\$ 11,145	\$ 11,455	\$ 11,832
Performance Materials	16,743	3,857	1,149
Other Activities	2,060	1,652	1,553
Total consolidated depreciation and amortization	<u>\$ 29,948</u>	<u>\$ 16,964</u>	<u>\$ 14,534</u>
Goodwill and intangible assets, net			
Electronic Chemicals	\$ 15,421	\$ 16,446	\$ 17,625
Performance Materials	518,241	528,346	38,509
Total consolidated goodwill and intangible assets, net	<u>\$ 533,662</u>	<u>\$ 544,792</u>	<u>\$ 56,134</u>
Total assets			
Electronic Chemicals	\$ 191,173	\$ 171,202	\$ 165,561
Performance Materials	600,192	596,872	53,798
Other Activities	27,068	24,357	17,669
Total consolidated assets	<u>\$ 818,434</u>	<u>\$ 792,431</u>	<u>\$ 237,028</u>
Operating income			
Electronic Chemicals	\$ 46,554	\$ 35,317	\$ 32,141
Performance Materials	54,991	13,804	12,631
Other Activities	(13,420)	(11,788)	(17,201)
Total consolidated operating income	<u>88,125</u>	<u>37,333</u>	<u>27,571</u>
Total other (expense) income, net	<u>(23,726)</u>	<u>(4,891)</u>	<u>659</u>
Income before income taxes	<u>\$ 64,399</u>	<u>\$ 32,442</u>	<u>\$ 28,230</u>

(1) For fiscal year 2016, segment depreciation excludes depreciation for restructuring and realignment.

For fiscal years 2018, 2017 and 2016 sales to one customer represented approximately 20%, 23% and 26%, respectively, of the Company’s net sales. No other customers accounted for 10% or more of the Company’s net sales.

Geographic Data:

The Company operated 19 facilities that are dedicated to manufacturing, blending and distributing products in 8 countries. The United States is home to 7 of those sites, representing 59.8% of the Company's long-lived assets. Sales are attributed to geographic areas based on customer location; long-lived assets are attributed to geographic areas based on asset location.

	<u>2018</u>	<u>2017</u>	<u>2016</u>
	(Amounts in thousands)		
Net sales:			
United States	\$ 257,546	\$ 180,075	\$ 162,427
International	208,010	153,367	135,551
Net sales	<u>\$ 465,556</u>	<u>\$ 333,442</u>	<u>\$ 297,978</u>
Property, plant and equipment, net:			
United States	\$ 70,068	\$ 67,490	
International	47,033	37,945	
Property, plant and equipment, net	<u>\$ 117,101</u>	<u>\$ 105,435</u>	

16. RESTRUCTURING AND REALIGNMENT EVENTS

In April 2017, the Company began implementation of a plan of restructuring of its electronic chemicals segment in Asia. As a result, the Company incurred approximately \$0.1 million and \$0.2 million of employee related severance costs during fiscal years 2018 and 2017, respectively.

As part of the global restructuring of its electronic chemicals operations, the Company closed one of its facilities in Milan, Italy in December 2015, and shifted some production to facilities in France and the United Kingdom. Accelerated depreciation with respect to the closed facilities has been completed. Restructuring charges, exclusive of accelerated depreciation, were \$1.8 million in the aggregate in fiscal year 2016.

At July 31, 2018, the accrued liability associated with restructuring and other related charges consisted of the following:

	<u>Employee Costs</u>	<u>Decommissioning and Environmental</u>	<u>Total</u>
Accrued liability at July 31, 2016	\$ 721	\$ 36	\$ 757
Payments	(362)	(41)	(403)
Adjustment	<u>(359)</u>	<u>82</u>	<u>(277)</u>
Accrued liability at July 31, 2017	\$ —	\$ 77	\$ 77
Payments	—	(36)	(36)
Adjustment	—	<u>(41)</u>	<u>(41)</u>
Accrued liability at July 31, 2018	<u>\$ —</u>	<u>\$ —</u>	<u>\$ —</u>

Total accelerated depreciation for the fiscal years ended July 31, 2016 and 2015 was \$0.3 million and \$0.9 million, respectively.

In October 2014, the Company announced a realignment of its hydrofluoric acid business and subsequently exited the facility operated for the Company by Chemtrade Logistics ("Chemtrade") in Bay Point, California. Under the manufacturing agreement, the Company is obligated to pay or reimburse Chemtrade for certain costs associated with the cessation of operations at Bay Point, including certain employee costs and the decommissioning, dismantling and removal of the Company's manufacturing equipment at the site. The Company established an asset retirement obligation of \$3.7 million for these costs. Operations ceased in the third quarter of fiscal year 2015. All assets have been fully depreciated as of July 31, 2015. All obligations related to the facility were settled as of July 31, 2017.

The changes to the asset retirement obligation associated with realignment are as follows:

Asset retirement obligation at July 31, 2016	\$ 168
Charges	(3)
Payments	<u>(165)</u>
Asset retirement obligation at July 31, 2017	\$ —

17. SELECTED QUARTERLY FINANCIAL DATA (UNAUDITED)

	<u>First Quarter</u>	<u>Second Quarter</u>	<u>Third Quarter</u>	<u>Fourth Quarter</u>
	(Amounts in thousands, except per share data)			
Year Ended July 31, 2018				
Net sales	\$ 110,664	\$ 113,851	\$ 118,647	\$ 122,394
Gross profit	46,481	49,254	50,491	51,435
Operating income	20,080	21,730	23,953	22,362
Income before income taxes	8,479	17,156	20,688	18,076
Net income	5,850	25,337	15,645	18,009
Earnings per share:				
Net income per share				
- basic	\$ 0.47	\$ 1.64	\$ 1.01	\$ 1.16
- diluted	0.46	1.59	0.98	1.13
Year Ended July 31, 2017				
Net sales	\$ 76,495	\$ 79,071	\$ 81,616	\$ 96,260
Gross profit	29,684	31,202	32,510	36,742
Operating income	8,681	9,040	9,367	10,245
Income before income taxes	8,734	8,583	9,210	5,915
Net income	5,742	6,486	6,067	5,338
Earnings per share:				
Net income per share				
- basic	\$ 0.48	\$ 0.55	\$ 0.51	\$ 0.45
- diluted	0.47	0.53	0.49	0.43

Earnings per share amounts are computed independently for each quarter presented. Therefore, the sum of the quarterly earnings per share may not equal annual earnings per share.

18. SUBSEQUENT EVENTS

On August 14, 2018, the Company entered into a Merger Agreement with Cabot Microelectronics and Cobalt Merger Sub, providing for the acquisition of the Company by Cabot Microelectronics. The Merger Agreement provides that, upon the terms and subject to the satisfaction or valid waiver of the conditions set forth in the Merger Agreement, Merger Sub will merge with and into the Company, with the Company continuing as the surviving corporation and a wholly owned subsidiary of Cabot Microelectronics.

If the Merger is completed, each outstanding share of the Company's common stock will automatically be converted into the right to receive \$55.65 in cash and 0.2000 shares of common stock of Cabot Microelectronics, par value \$0.001 per share at the effective time of the Merger. Immediately prior to closing, each restricted stock unit award relating to the Company's shares of common stock granted prior to August 14, 2018 will vest and be cancelled in exchange for the Merger Consideration in respect of each share of the Company's common stock underlying the applicable award. Each restricted stock unit award granted on or following August 14, 2018 will be converted into a corresponding award relating to shares of Cabot Microelectronics common stock and continue to vest post-closing in accordance with the terms of the applicable award agreement.

The Merger Agreement and the Merger have been unanimously approved by the boards of directors of the Company and Cabot Microelectronics. The consummation of the Merger is subject to customary closing conditions, including the adoption of the Merger Agreement by the Company's shareholders.

UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

On November 15, 2018 (the “Closing Date”), Cabot Microelectronics Corporation, a Delaware corporation (the “Company”, or “Cabot Microelectronics”), completed its acquisition of KMG Chemicals, Inc., a Texas corporation (“KMG”). Pursuant to the merger agreement, Cobalt Merger Sub Corporation, a Texas corporation and wholly owned subsidiary of the Company, merged with and into KMG, with KMG becoming a direct, wholly owned subsidiary of the Company (the “Merger”).

The following unaudited pro forma condensed combined financial information has been prepared giving the effects of the Merger and the related financing transactions. It sets forth:

- Historical consolidated financial information of Cabot Microelectronics as of and for the year ended September 30, 2018, derived from Cabot Microelectronics’ audited consolidated financial statements;
- Historical consolidated financial information of KMG as of and for the year ended July 31, 2018, derived from KMG’s audited consolidated financial statements;
- Pro forma adjustments to give effect to Cabot Microelectronics’ acquisition of KMG on Cabot Microelectronics’ consolidated balance sheet as of September 30, 2018, as if the Merger closed on September 30, 2018; and
- Pro forma adjustments to give effect to Cabot Microelectronics’ acquisition of KMG on Cabot Microelectronics’ consolidated statements of income for the year ended September 30, 2018, as if the Merger closed on October 1, 2017.

Cabot Microelectronics and KMG have different fiscal years. Cabot Microelectronics’ fiscal year ends on September 30, whereas KMG’s fiscal year ends on July 31. The unaudited pro forma condensed combined balance sheet and statements of income have been prepared utilizing period ends that differ by less than 93 days, as permitted by Rule 11-02 Regulation S-X.

The historical condensed consolidated financial information in the unaudited pro forma condensed combined financial information has been adjusted to give effect to pro forma events that are (1) directly attributable to the Merger, (2) factually supportable and (3) with respect to the unaudited pro forma condensed combined statements of operations, expected to have a continuing impact on the combined results of Cabot Microelectronics and KMG.

This unaudited pro forma condensed combined financial information has been prepared for illustrative purposes only and is based on assumptions and estimates considered appropriate by Cabot Microelectronics’ management; however, it is not necessarily indicative of what Cabot Microelectronics’ consolidated financial condition or results of operations actually would have been assuming the transactions had been consummated as of the dates indicated, nor does it purport to represent Cabot Microelectronics’ consolidated financial position or results of operations for future periods. This unaudited pro forma condensed combined financial information does not consider any impacts of potential revenue enhancements, anticipated cost savings and expense efficiencies or other synergies that may be achieved in the acquisitions or any strategies that management may consider in order to continue to efficiently manage Cabot Microelectronics’ operations. Future results may vary significantly from the results reflected due to various factors, including those discussed in in Part I, Item 1A entitled "Risk Factors" of the Company’s Annual Report on Form 10-K for the fiscal year ended September 30, 2018.

This pro forma condensed combined financial information should be read in conjunction with:

- Cabot Microelectronics’ audited consolidated financial statements and the related notes thereto as of and for the year ended September 30, 2018 included in Cabot Microelectronics’ Annual Report on Form 10-K for the fiscal year ended September 30, 2018;
- KMG’s audited consolidated financial statements and the related notes thereto as of and for the year ended July 31, 2018 included in Exhibit 99.1 of this Form 8-K/A; and
- The accompanying notes to the unaudited pro forma condensed combined financial information.

The unaudited pro forma condensed combined financial information is prepared using the purchase method of accounting, as defined by Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) Topic 805, *Business Combinations* (“ASC 805”), with Cabot Microelectronics treated as the acquirer, and Article 11 of Regulation S-X, as defined by the SEC. The following unaudited pro forma condensed combined financial information primarily gives effect to:

- Application of the acquisition method of accounting in connection with the Merger;
- Adjustments to reflect financing arrangements entered into in connection with the Merger; and
- Transaction costs incurred in connection with the Merger.

The allocation of the purchase price used in the unaudited pro forma condensed combined financial information is based on preliminary valuation derived from the tangible assets and liabilities and intangible assets of KMG as of the close of the Merger. These preliminary results are based on information available at the time of this filing and are subject to change when the final purchase price allocation is complete. Cabot Microelectronics believes that the information provides a reasonable basis for estimating the preliminary fair values of assets acquired and liabilities assumed, but certain items may be subject to change. Cabot Microelectronics expects to finalize the purchase price allocation as soon as practicable, but not later than one-year from the acquisition date of November 15, 2018.

The unaudited pro forma condensed combined financial information has been compiled in a manner consistent with the accounting policies adopted by Cabot Microelectronics. Certain reclassifications have been made to conform the presentation of KMG’s financial information to that of Cabot Microelectronics.

CABOT MICROELECTRONICS CORPORATION
UNAUDITED PRO FORMA CONDENSED COMBINED BALANCE SHEET
AS OF SEPTEMBER 30, 2018
(in thousands)

	<u>Historical</u>		<u>Presentation Reclassification</u>	<u>Notes</u>	<u>Pro Forma Adjustments for Acquisition</u>	<u>Notes</u>	<u>Pro Forma Adjustments for Financing</u>	<u>Notes</u>	<u>Combined Pro Forma</u>
	<u>Cabot Microelectronics</u>	<u>KMG</u>							
	<u>As of September 30, 2018</u>	<u>As of July 31, 2018</u>							
ASSETS:									
Cash and cash equivalents	\$ 352,921	\$ 24,436	\$ —		\$ (1,251,029)	4a	\$ 1,043,592	5a	\$ 169,920
Accounts receivable, net of allowances	75,886	61,895			—				137,781
Other receivables	—	9,943	(9,943)	3c	—				—
Inventories	71,926	54,218			14,864	4b			141,008
Prepaid expenses and other current assets	22,048	4,807	9,943	3c	—		859	5b	37,657
Total current assets	<u>522,781</u>	<u>155,299</u>	<u>—</u>		<u>(1,236,165)</u>		<u>1,044,451</u>		<u>486,366</u>
Property, plant and equipment, net	111,403	117,101			29,567	4c			258,071
Goodwill	101,083	233,204			372,186	4d			706,473
Other intangible assets, net	35,202	300,457			544,343	4e			880,002
Deferred income taxes	5,840	—	714	3d	—				6,554
Other long-term assets	4,664	12,373	(714)	3d	(6,663)	4f			9,660
Total assets	<u>\$ 780,973</u>	<u>\$ 818,434</u>	<u>\$ —</u>		<u>\$ (296,732)</u>		<u>\$ 1,044,451</u>		<u>\$2,347,126</u>
LIABILITIES AND STOCKHOLDERS' EQUITY:									
Current Liabilities:									
Accounts payable	\$ 18,171	\$ 39,005			\$ —				\$ 57,176
Current portion of long-term debt	—	—			—		7,623	5c	7,623
Accrued expenses, income taxes payable and other current liabilities	82,983	12,524	7,726	3e	1,750	4g			104,983
Employee incentive accrual	—	7,726	(7,726)	3e	—				—
Total current liabilities	<u>101,154</u>	<u>59,255</u>	<u>—</u>		<u>1,750</u>		<u>7,623</u>		<u>169,782</u>
Long-term debt, net	—	306,119			(306,119)	4h	1,036,828	5d	1,036,828
Deferred income taxes	81	32,129			138,255	4i			170,465
Other long-term liabilities	13,046	4,864			—				17,910
Total liabilities	<u>114,281</u>	<u>402,367</u>	<u>—</u>		<u>(166,114)</u>		<u>1,044,451</u>		<u>1,394,985</u>
Stockholders' equity:									
Common stock	36	155			(152)	4j			39
Capital in excess of par value of common stock	622,498	222,371			108,675	4j			953,544
Retained earnings	471,673	203,862			(249,462)	4j			426,073
Accumulated other comprehensive income (loss)	4,539	(10,321)			10,321	4j			4,539
Treasury Stock	(432,054)	—			—				(432,054)
Total stockholders' equity	<u>666,692</u>	<u>416,067</u>	<u>—</u>		<u>(130,618)</u>		<u>—</u>		<u>952,141</u>
Total liabilities and stockholders' equity	<u>\$ 780,973</u>	<u>\$ 818,434</u>	<u>\$ —</u>		<u>\$ (296,732)</u>		<u>\$ 1,044,451</u>		<u>\$2,347,126</u>

See accompanying "Notes to Unaudited Pro Forma Condensed Combined Financial Information"

CABOT MICROELECTRONICS CORPORATION
UNAUDITED PRO FORMA CONDENSED COMBINED STATEMENT OF INCOME
FOR THE YEAR ENDED SEPTEMBER 30, 2018
(in thousands, except per share amounts)

	<u>Historical</u>		<u>Pro Forma Adjustments for Reclassification</u>	<u>Notes</u>	<u>Pro Forma Adjustments for Acquisition</u>	<u>Notes</u>	<u>Pro Forma Adjustments for Financing</u>	<u>Notes</u>	<u>Pro Forma Combined</u>
	<u>Cabot Microelectronics</u>	<u>KMG Chemicals</u>							
	<u>Year Ended September 30, 2018</u>	<u>Year Ended July 31, 2018</u>							
Revenue	\$ 590,123	\$ 465,556			—		—		\$ 1,055,679
Cost of goods sold	276,018	267,895	36,439	3a	13,480	4k	—		593,832
Gross profit	314,105	197,661	(36,439)		(13,480)		—		461,847
Operating expenses:									
Distribution expenses	—	36,439	(36,439)	3a	—		—		—
Research, development and technical	51,950	—			—		—		51,950
Selling, general and administrative expenses	—	57,900	(57,900)	3b	—		—		—
Selling and marketing	25,044	—	9,924	3b	51,939	4l	—		86,907
General and administrative	76,993	—	47,976	3b	(3,717)	4m	—		121,252
Amortization of intangible assets	—	15,123			(15,123)	4n	—		—
Restructuring charges	—	74			—		—		74
Total operating expenses	153,987	109,536	(36,439)		33,099		—		260,183
Operating income	160,118	88,125	—		(46,579)		—		201,664
Interest expense	2,905	21,529			—		33,302	5e	57,736
Loss on the extinguishment of debt	—	(6,710)			—		6,710	5f	—
Derivative fair value gain	—	5,576			—		(5,576)	5g	—
Other income (expense), net	4,498	(1,063)			—		—		3,435
Income before income taxes	161,711	64,399	—		(46,579)		(32,168)		147,363
Provision for income tax expense (benefit)	51,668	(442)			(12,809)	4o	(8,846)	5h	29,571
Net income	\$ 110,043	\$ 64,841	—		(33,770)		(23,322)		\$ 117,792
Basic earnings per share	\$ 4.31	\$ 4.41							\$ 4.09
Weighted average basic shares outstanding	25,518	14,708							28,755
Diluted earnings per share	\$ 4.19	\$ 4.29							\$ 3.99
Weighted average diluted shares outstanding	26,243	15,111							29,480

See accompanying “Notes to Unaudited Pro Forma Condensed Combined Financial Information”

NOTES TO UNAUDITED PRO FORMA CONDENSED COMBINED FINANCIAL INFORMATION

Unless otherwise indicated, all dollar amounts and share amounts included within the Notes to Unaudited Pro Forma Condensed Combined Financial Information are presented in thousands, except for per share data.

NOTE 1: Description of the Transaction and Basis of Pro Forma Presentation

On November 15, 2018, Cabot Microelectronics Corporation completed its acquisition of KMG. Pursuant to the merger agreement, Merger Sub merged with and into KMG, with KMG becoming a direct, wholly owned subsidiary of the Company. At the close of the merger, each outstanding share of KMG common stock, par value \$0.01 per share, and certain unvested KMG equity awards were automatically converted into the right to receive, without interest, \$55.65 in cash and 0.2000 shares of common stock of Cabot Microelectronics, par value \$0.001 per share.

Cabot Microelectronics paid \$1,205,404 for the aggregate cash portion of the consideration (including repayment of debt), and the remainder of the purchase price was funded with the issuance of Cabot Microelectronics common stock. Cabot Microelectronics has obtained a \$1,065,000 term loan to partially fund the cash portion of the consideration and utilized cash on hand for the remainder of the cash portion of the consideration. Additionally, Cabot Microelectronics secured a \$200,000 revolving credit facility that will provide additional borrowing capacity, if needed. As of the date of this filing, the revolving credit facility remains undrawn.

The unaudited pro forma condensed combined financial information and related notes were derived from the historical consolidated financial statements of Cabot Microelectronics and KMG. The unaudited pro forma condensed combined financial information was prepared as a business combination using the acquisition method of accounting pursuant to ASC 805, with Cabot Microelectronics treated as the accounting acquirer. As a result, Cabot Microelectronics will record the business combination in its financial statements and will apply the acquisition method to account for the assets acquired and liabilities assumed of KMG. The acquisition method requires the recording of identifiable assets acquired and liabilities assumed at their fair values on the acquisition date and the recording of goodwill for the excess of the purchase price over the aggregate fair value of the identifiable assets acquired and liabilities assumed. Additionally, the accompanying unaudited pro forma condensed combined financial information was prepared in accordance with Article 11 of SEC Regulation S-X.

The unaudited pro forma condensed combined financial information is presented for illustrative purposes only and is not necessarily indicative of what Cabot Microelectronics' financial position or results of operations would have been had the KMG acquisition been consummated on the dates indicated, nor is it necessarily indicative of what Cabot Microelectronics' financial position or results of operations will be in future periods. The historical financial information has been adjusted to give effect to the pro forma events that are directly attributable to the acquisition, factually supportable and, with respect to the unaudited pro forma condensed combined statements of income, expected to have a continuing impact on the combined results of operations. Additionally, the unaudited pro forma condensed combined statements of income do not reflect the cost of any integration activities or benefits that may result from synergies that may be derived from any integration activities.

To prepare the unaudited pro forma condensed combined financial information, Cabot Microelectronics adjusted KMG's assets and liabilities to their estimated fair values based on valuation procedures performed. As of the date of this filing, Cabot Microelectronics believes that the valuation procedures provide a reasonable basis for estimating the preliminary fair values of assets acquired and liabilities assumed, but certain items may be subject to change. Accordingly, the final acquisition accounting adjustments may be materially different from the unaudited pro forma adjustments.

The unaudited pro forma condensed combined financial information, and accompanying notes thereto, should be read in conjunction with the historical consolidated financial statements and accompanying notes included in the Annual Report on Form 10-K for the fiscal year ended September 30, 2018 for Cabot Microelectronics and Exhibit 99.1 of this Form 8-K/A for KMG.

Accounting periods presented

Cabot Microelectronics and KMG have different fiscal years. Cabot Microelectronics' fiscal year ends on September 30, whereas KMG's fiscal year ends on July 31. The unaudited pro forma condensed combined balance sheet and statements of income have been prepared utilizing period ends that differ by less than 93 days, as permitted by Rule 11-02 of Regulation S-X.

The unaudited pro forma condensed combined balance sheet as of September 30, 2018 has been prepared as if the Merger, the borrowings used to finance the Merger and the issuance of Cabot Microelectronics common stock to KMG shareholders occurred on September 30, 2018 and combines Cabot Microelectronics' balance sheet as of September 30, 2018 with KMG's balance sheet as of July 31, 2018. The unaudited pro forma condensed combined statement of income for the year ended September 30, 2018 has been prepared as if the Merger, the borrowings used to finance the Merger, and the issuance of Cabot Microelectronics common stock to KMG shareholders occurred on October 1, 2017 and combine the historical results of Cabot Microelectronics for the year ended September 30, 2018 and the historical results of KMG for the year ended July 31, 2018.

NOTE 2: Consideration Transferred and Preliminary Fair Value of Net Assets Acquired

The unaudited pro forma condensed combined balance sheet has been adjusted to reflect the preliminary fair values of the KMG identifiable assets acquired and liabilities assumed. The excess of the purchase price over these fair values is recorded to goodwill. The unaudited pro forma purchase price allocation was based on data that was available as of the date of this filing. The Company is currently conducting additional valuation procedures and any increases or decreases in the fair value of assets acquired or liabilities assumed will result in adjustments to the balance sheet and/or statements of income until the purchase price allocation is finalized. Such adjustments may be material.

The preliminary allocation of total consideration transferred, as if the Merger occurred on September 30, 2018, was as follows:

	<u>Amount</u>
Assets acquired and liabilities assumed at fair value:	
Cash	\$ 22,660
Net working capital (excluding Inventory)	17,390
Inventory	69,082
Fixed assets	146,668
Other assets/liabilities	(169,538)
Intangible assets	844,800
Goodwill	605,390
Total consideration transferred	<u>\$ 1,536,452</u>

The following table summarizes the consideration transferred as a result of the Merger:

	<u>Note</u>	<u>Amount</u>
Cash consideration paid for KMG outstanding common stock	2.a	\$ 877,200
Cash consideration paid for KMG outstanding equity awards	2.b	23,556
Total cash consideration paid for KMG outstanding common stock and equity awards		900,756
Cash provided to payoff KMG debt	2.c	304,648
Total cash consideration paid		1,205,404
Fair value of Cabot Microelectronics common stock issued for KMG outstanding common stock	2.d	322,393
Fair value of Cabot Microelectronics common stock issued for KMG outstanding equity awards	2.d, 2.e	8,655
Total consideration transferred		<u>\$ 1,536,452</u>

a. Cash consideration paid for each outstanding share of KMG common stock in the Merger was computed as follows:

Outstanding shares of KMG common stock (as of November 15, 2018)	15,763
Cash consideration paid per KMG common share	\$ 55.65
Cash consideration paid to KMG shareholders	877,186
Cash consideration paid in lieu of fractional shares	14
Cash consideration paid to KMG shareholders (including fractional shares)	<u>\$ 877,200</u>

b. Cash consideration paid for KMG outstanding equity awards to the extent they were paid in cash under the merger agreement was computed as follows:

Share equivalent of KMG equity awards settled in cash, per the merger agreement	423
Cash consideration paid per KMG common share	\$ 55.65
Cash consideration paid to holders of KMG equity awards	23,554
Cash consideration paid in lieu of fractional shares	2
Cash consideration paid to holders of KMG equity awards (including fractional shares)	<u>\$ 23,556</u>

- c. As part of the Merger, Cabot Microelectronics provided funds to KMG at closing, which KMG used to pay off its outstanding debt balance. As of the balance sheet date presented, KMG's outstanding debt balance was \$312,000. KMG continued to service its outstanding debt obligations and make payments of principal and interest up to the closing date, which reduced the outstanding principal and interest paid at closing. Accordingly, the cash paid by Cabot Microelectronics at closing to satisfy KMG's outstanding debt obligations was \$304,648.
- d. The fair value of Cabot Microelectronics' common stock issued for KMG's outstanding common stock (and equity awards entitled to merger consideration) in the Merger was computed as follows:

Outstanding shares of KMG common stock (as of November 15, 2018)	15,763
Exchange ratio (1)	<u>0.2</u>
Shares of Cabot Microelectronics common stock issued for KMG outstanding common stock	3,153
Less fractional shares	1
Shares of Cabot Microelectronics common stock issued for KMG outstanding common stock	3,152
Price per share of Cabot Microelectronics common stock (2)	\$ 102.27
Fair value of Cabot Microelectronics common stock issued for KMG outstanding common stock	<u>\$ 322,393</u>
Share equivalent of KMG equity awards entitled to merger consideration	423
Exchange ratio (1)	<u>0.2</u>
Shares of Cabot Microelectronics common stock issued for KMG outstanding equity awards	85
Price per share of Cabot Microelectronics common stock (2)	\$ 102.27
Fair value of Cabot Microelectronics common stock issued for KMG outstanding equity awards	<u>8,655</u>
Fair value of Cabot Microelectronics common stock issued for KMG outstanding common stock and equity awards	<u><u>\$ 331,048</u></u>

- (1) The exchange ratio is equal to 0.2000 per the merger agreement.
- (2) Stock price used in the calculation of fair value of equity securities issued as part of the purchase consideration was based on the closing price of Cabot Microelectronics common stock on November 15, 2018, the Closing Date, in accordance with ASC 805.
- e. Under the merger agreement, vesting of equity awards granted by KMG on or before the date of the merger agreement accelerated upon the closing of the Merger, and those equity award holders received the same acquisition consideration as KMG common stockholders.

NOTE 3: Presentation reclassifications

Certain reclassifications have been recorded in the unaudited pro forma condensed combined balance sheet and income statement to conform KMG's financial statement presentation to Cabot Microelectronics' presentation. KMG has historically presented certain financial statement line items with different captions than Cabot Microelectronics; however, they represent similar transactions. These include: Net sales; Cost of sales; Interest expense, net and Other, net on the statement of income and Trade, net of allowances; Inventories, net; Other assets, net; Accrued expenses, income taxes payable and other current liabilities; Deferred tax liabilities and Additional paid-in capital on the balance sheet. Cabot Microelectronics has not provided a reclassification adjustment for these items as they represent the same financial statement line item as presented historically by Cabot Microelectronics.

The following items are presented as reclassifications in the unaudited pro forma condensed combined financial information for purposes of conforming KMG's classification of certain assets, liabilities, income and expenses to Cabot Microelectronics' classification for the combined presentation:

Statements of income

- a. \$36,439 of historical KMG Distribution expenses has been reclassified to cost of goods sold for the year ended September 30, 2018. Under U.S. GAAP, the presentation of these costs is a policy election.
- b. \$9,924 of \$57,900 of historical KMG Selling, general and administrative expense has been reclassified to Selling and marketing, and the remaining \$47,976 has been reclassified to General and administrative expense for the year ended September 30, 2018.

Balance sheet

- c. \$9,943 of historical KMG Other receivables has been reclassified to Prepaid expenses and other current assets.
- d. \$714 of historical KMG Other long-term assets has been reclassified to Deferred income taxes as an asset.
- e. \$7,726 of historical KMG Employee incentive accruals has been reclassified to Accrued expenses, income taxes payable and other current liabilities.

NOTE 4: Pro Forma Adjustments for Acquisition

Adjustments to Unaudited Pro Forma Condensed Combined Balance Sheet

The following pro forma adjustments have been reflected in the unaudited pro forma condensed combined balance sheet:

- a. Cash and cash equivalents

Cash consideration paid for KMG outstanding common stock and equity awards (Note 2)	\$ 900,756
Repayment of KMG debt	312,000
Proceeds from termination of KMG's interest rate swap	(5,308)
Retention, severance and bonus payments made to KMG personnel	16,450
Combined transaction costs incurred by Cabot Microelectronics and KMG in connection with the Merger	27,131
Pro forma adjustment, Cash and cash equivalents	<u>\$ 1,251,029</u>

- b. Inventories

The \$14,864 pro forma adjustment to Inventories represents the preliminary adjustment to mark-up the carrying value of KMG's inventory to its preliminary estimated fair value. This adjustment has not been included in the statement of income as an adjustment to cost of goods sold due to the fact that the mark-up is considered as a one-time adjustment and has no ongoing impact on the statements of income of the combined company.

- c. Property, plant and equipment, net

The \$29,567 pro forma adjustment to Property, plant and equipment, net represents the preliminary adjustment to adjust the carrying value of KMG's fixed assets to its preliminary estimated fair value. The estimated fair value is expected to be depreciated over the estimated useful lives of the assets, generally on a straight-line basis. The additional depreciation expense results from the step up of the carrying value of KMG's fixed assets to their estimated fair value. Among KMG's fixed assets, the useful life ranges from 4 to 10 years for machinery and equipment, and from 10 to 31 years for building and improvements. The weighted average useful life is 6.8 years for all the acquired fixed assets. The fair values and useful lives are preliminary and subject to change once Cabot Microelectronics has sufficient information as to the specific types, nature, age, condition and location of KMG's fixed assets. An increase or decrease of 10 percent in fair values would increase or decrease the depreciation expense by approximately \$2,168 per annum.

- d. Goodwill

The adjustment reflects a net increase in goodwill of \$372,186 consisting of the addition of \$605,390 of new goodwill resulting from the Merger, offset by the elimination of \$233,204 of historical KMG goodwill. The \$605,390 of merger-related goodwill is based on the preliminary estimates and information summarized in Note 2.

e. Other intangible assets, net

The net pro forma adjustment of \$544,343 reflects the elimination of \$300,457 of historical KMG intangible assets, offset by a preliminary fair value estimate of \$844,800 in identifiable intangible assets acquired. The fair value of intangible assets is preliminary and is determined based on assumptions that market participants would use in pricing an asset, based on the most advantageous market for the asset (i.e., its highest and best use). The final fair value determinations for identifiable intangible assets may differ from the preliminary determination, and such differences could be material.

Intangible assets	Estimated Fair Value	Estimated Useful Life
EPA product registration rights – Performance Materials		15 years
Trade name – Electronic Chemicals	\$ 2,300	
Trade name – Performance Materials	2,000	1 year
Trade name – Performance Materials	5,000	15 years
Trade name – Performance Materials	46,000	Indefinite life
Technology and know-how – Electronic Chemicals	30,000	9 years
Technology and know-how – Performance Materials	55,500	9-11 years
Customer relationships – Electronic Chemicals	280,000	19 years
Customer relationships – Performance Materials	424,000	15–20 years
Total identifiable intangible assets	<u>844,800</u>	
Historical KMG intangible assets	<u>(300,457)</u>	
Pro forma adjustment	<u>\$ 544,343</u>	

Pro forma amortization of acquired intangible assets was \$60,580 for the year ended September 30, 2018. The amortization of the acquired intangible assets has been prepared to reflect the Merger as if it occurred on October 1, 2017. For the purposes of the unaudited pro forma condensed combined financial information, the amortization of acquired intangible assets has been assumed to be on a straight-line basis, except for customer relationships. The amortization of customer relationships is based on an accelerated method, which reflects the pattern in which the economic benefits are consumed. Cabot Microelectronics is currently in the process of performing the detailed valuation work necessary to finalize the required estimated fair values, estimated lives, and pattern of expected economic benefit associated with the acquired intangible assets. Finalization of the acquisition accounting may result in material changes in the fair value of these intangible assets and/or the associated amortization expense. An increase or decrease of 10 percent in fair values would increase or decrease the amortization expense by approximately \$6,058 per annum.

The following table shows the amortization of the pro forma balance of the acquired intangible assets for the fiscal years 2019 through 2023, which has been prepared as if the Merger occurred on October 1, 2017:

	2019	2020	2021	2022	2023
Total Amortization	\$ 80,808	\$ 80,119	\$ 72,708	\$ 65,941	\$ 59,056

f. Other long-term assets

The \$6,663 adjustment to Other long-term assets includes the termination of KMG's interest rate swaps, valued at \$5,576 as of July 31, 2018, and the write-off of remaining prepaid debt issuance costs of \$1,087, both driven by the termination of KMG's credit facility in connection with the Merger.

g. Accrued expenses, income taxes payable and other current liabilities

Retention, severance and bonus payments to be made to KMG personnel, net of tax	\$ 6,237
Tax benefit resulting from the combined transaction costs incurred by Cabot Microelectronics and KMG in connection with the Merger and tax effect of the fees associated with terminating KMG's interest rate swap (1)	(4,487)
Pro forma adjustment, Accrued expenses, income taxes payable and other current liabilities	<u>\$ 1,750</u>

(1) The tax benefit that results from combined transaction costs is calculated only on the costs that are expected to be tax deductible.

h. Long-term debt, net

Elimination of KMG historical debt, as of July 31, 2018	\$ (312,000)
Elimination of KMG unamortized issuance costs	5,881
Pro forma adjustment, Long-term debt, net	<u>\$ (306,119)</u>

i. Deferred income taxes

The pro forma adjustment of \$138,255 in deferred tax liabilities is due to recording the estimated tax impact of pro forma adjustments, which reflects the temporary difference between the preliminary fair value in the purchase price allocation and the carryover tax bases for certain identifiable assets acquired in the Merger, and the reversal of the deferred tax assets related to the vesting of KMG's restricted stock units. The pro forma adjustments were tax effected at the applicable blended statutory tax rate of 24% as of September 30, 2018, which reflects the estimated tax rates expected to be in effect when the deferred taxes are reversed in the future. Adjustments to established deferred tax assets and liabilities due to refined determination of statutory rates as well as the changes in the estimates of the fair values of assets acquired and liabilities assumed occur in conjunction with the finalization of the acquisition accounting, and these changes in estimates could be material.

j. Stockholders' equity

Adjustments to Stockholders' equity include the following:

	<u>Common stock</u>	<u>APIC</u>	<u>Retained earnings</u>	<u>Accumulated other comprehensive loss</u>
Fair value of Cabot Microelectronics common stock issued for KMG common stock	\$ 3	\$ 331,046	\$ —	\$ —
Elimination of KMG historical stockholders' equity	(155)	(222,371)	(203,862)	10,321
Early termination penalty on interest rate swap, net of tax	—	—	(194)	—
Effect of pro forma acquisition related transaction costs and KMG employee payments, including retention, severance and bonus payments	—	—	(45,406)	—
	<u>\$ (152)</u>	<u>\$ 108,675</u>	<u>\$ (249,462)</u>	<u>\$ 10,321</u>

Adjustments to Unaudited Pro Forma Condensed Combined Statements of Income

k. Cost of goods sold

	Year Ended September 30, 2018
Amortization of acquired intangible assets	\$ 8,641
Depreciation of fixed assets fair value adjustment	4,839
Pro forma adjustment, Cost of goods sold	<u>\$ 13,480</u>

l. Selling and marketing

Pro forma adjustment reflects the amortization of acquired intangible assets of \$51,939 for the year ended September 30, 2018.

m. General and administrative

	Year Ended September 30, 2018
Depreciation of fixed assets fair value adjustment	\$ 1,136
Elimination of transaction cost incurred by Cabot Microelectronics as a result of its acquisition of KMG	(3,861)
Elimination of transaction costs incurred by KMG as a result of Cabot Microelectronics' acquisition of KMG	(992)
Pro forma adjustment, General and administrative	<u>\$ (3,717)</u>

n. Amortization of intangible assets

Pro forma adjustment reflects the elimination of KMG's historical intangible asset amortization of \$15,123 for the year ended July 31, 2018.

o. Income tax expense

The pro forma adjustments of \$12,809 represent the income tax effect for unaudited pro forma condensed combined statement of income adjustments related to the Merger using the applicable U.S. statutory tax rates 27.5% for the year ended September 30, 2018. Because the adjustments contained in this unaudited pro forma condensed combined financial information are based on estimates, the effective tax rate of the combined company could be significantly different (either higher or lower) depending on post-acquisition activities and impact due to the Tax Cuts and Jobs Act in the United States (the "Tax Act").

p. Basic and diluted weighted average number of shares outstanding

Pro forma adjustments to basic and diluted weighted average number of shares outstanding reflects a total of 3,237 shares of Cabot Microelectronics common stock issued for KMG outstanding common stock and equity awards entitled to merger consideration. These 3,237 shares were added to Cabot Microelectronics' historical basic shares as if they had been issued on October 1, 2017. See Note 2 for additional discussion.

	Year Ended September 30, 2018
Pro forma Net Income attributable to Cabot Microelectronics common shareholders	\$ 117,671
Pro forma basic weighted average number of shares outstanding	28,755
Pro forma Net Income per basic share attributable to Cabot Microelectronics common shareholders	<u>\$ 4.09</u>
Pro forma Net Income attributable to Cabot Microelectronics common shareholders	\$ 117,671
Pro forma diluted weighted average number of shares outstanding	29,480
Pro forma Net Income per diluted share attributable to Cabot Microelectronics common shareholders	<u>\$ 3.99</u>

NOTE 5: Pro Forma Adjustments for Financing**Adjustments to Unaudited Pro Forma Condensed Combined Balance Sheet**

Cabot Microelectronics financed the cash portion of the Merger using cash on hand and through debt issuances. The Company has entered into a credit facility agreement, including a long-term loan in the amount of \$1,065,000 with a maturity of seven years, and a revolver in the amount of \$200,000 with a maturity of five years, which has not been drawn as of the date of this filing. Cabot Microelectronics paid approximately \$21,408 in debt issuance costs. The unaudited pro forma condensed combined financial information reflects an interest at the 30-day LIBOR rate plus 225 basis points for these new borrowings.

a. Cash and cash equivalents

Net pro forma adjustment of \$1,043,592 reflects the proceeds from issuance of debt in the amount of \$1,065,000, less payment of debt issuance costs of \$21,408.

b. Prepaid expenses and other current assets

Pro forma adjustment of \$859 reflects the unamortized debt issuance costs related to the new revolver of \$859.

c. Current portion of long-term debt, net

Cabot Microelectronics proceeds from issuance of debt	\$ 1,065,000
Debt amortization in first year	1%
Pro forma adjustment for financing, Current portion of long-term debt	<u>\$ 10,650</u>
Less debt issuance cost, current portion	(3,027)
Pro forma adjustment for financing, Current portion of long-term debt, net	<u>\$ 7,623</u>

d. Long-term debt, net

Long term portion of debt issuance	\$ 1,054,350
Less debt issuance cost, long term	(17,522)
Pro forma adjustment for financing, Long-term debt, net	<u>\$ 1,036,828</u>

Adjustments to Unaudited Pro Forma Condensed Combined Statements of Income

- e. The following adjustments to interest expense reflect the financing debt issuance as well as the payoff of KMG debt and termination of the related interest rate swap at the time of closing. As a result of financing activities, on the terms below, the unaudited pro forma condensed combined financial statements result in an (i) increase in interest expense of \$51,247 for the year ended September 30, 2018, reflecting interest expense related to the new financing referenced below, (ii) increase to interest expense reflecting amortization of deferred financing cost and commitment fees of \$3,785 for the year ended September 30, 2018, associated with debt issuance and replacement facility, (iii) the elimination of \$21,529 of interest and amortization related to KMG debt for the year ended September 30, 2018. The following tables show the assumed interest expense, interest rates and terms of the debt issuance and replacement credit facility obtained by Cabot Microelectronics based on the terms of the merger financing at the prevailing rates at the date of filing:

	For the Year Ended September 30, 2018				
	Borrowings	Interest Expense	Commitment Fee on Undrawn Portion	Deferred Cost Amortization	Total Increase to Interest Expense
New Financing					
Revolving Credit Facility	\$ —	\$ —	\$ 586	\$ 172	\$ 758
Term Loan B	1,065,000	51,247	—	3,027	54,274
	<u>\$ 1,065,000</u>	<u>\$ 51,247</u>	<u>\$ 586</u>	<u>\$ 3,199</u>	<u>\$ 55,032</u>
Eliminate KMG Interest Expense					\$ (21,529)
Eliminate Non-use fee on existing Cabot Microelectronics credit facility					(201)
Net change in Interest expense, net					<u>\$ 33,302</u>

The interest expense is calculated using the 30-day LIBOR plus 225 basis points. For the purposes of the unaudited pro forma condensed combined financial information, an estimated interest rate of 4.8% has been assumed for purposes of calculating the interest expense disclosed in the table above. If LIBOR were to increase or decrease by 0.125%, interest expense would increase or decrease by \$1,326 for the twelve months ended September 30, 2018, respectively.

- f. Loss on the extinguishment of debt

The pro forma adjustment of \$6,710 reflects the elimination of KMG's loss on the extinguishment of debt for the twelve months ended September 30, 2018.

- g. Derivative fair value gain

The pro forma adjustment of \$5,576 reflects the elimination of KMG's derivative fair value gain for the year ended September 30, 2018.

- h. Income tax expense

The pro forma adjustment of \$8,846 represents the income tax effect for unaudited pro forma condensed combined statement of income adjustments related to the Merger using the applicable U.S. statutory tax rate of 27.5% for the year ended September 30, 2018. Because the adjustments contained in this unaudited pro forma condensed combined financial information are based on estimates, the effective tax rate of the combined company could be significantly different (either higher or lower) depending on post-acquisition activities and impact due to the Tax Act.

